

June 26, 2024

Petroleum Remediation Section, Petroleum Branch  
Office of Land Quality  
Indiana Department of Environmental Management  
100 N. Senate Avenue  
Indianapolis, IN 46204

**Subject: Quarterly Monitoring Report**

Marathon Pipe Line LLC  
39.652667, -86.761000, E. County Rd 50, Fillmore, Putnam County, IN 46128

Indiana Department of Environmental Management:

Antea®Group, on behalf of Marathon Pipe Line LLC (Marathon or MPL), is providing this 2024 Second Quarter Monitoring Report for the release (incident # 0001133) occurring at the location outlined above. Please note that Douglas Bartz was assigned to this project before his retirement.

If you have any questions regarding this submittal, please contact us.

Sincerely,



Blake Ford  
Project Manager  
+1 314 240 1468  
[blake.ford@anteagroup.us](mailto:blake.ford@anteagroup.us)  
Antea Group

cc: Kyle Strobel, Marathon Pipe Line LLC  
Copy, Antea Group



# QUARTERLY MONITORING REPORT (QMR) COVER SHEET AND REPORT FORMAT

State Form 56087 (6-16)  
329 IAC 9-5  
Indiana Department of Environmental Management  
Office of Land Quality  
Leaking Underground Storage Tank Section

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
Attention: Leaking UST Section  
Office of Land Quality  
100 N. Senate Ave., MC 67-18, IGCN 1101  
Indianapolis, IN 46204-2251

### INSTRUCTIONS:

1. This form is intended to assist with the organization of the Quarterly Monitoring Report (QMR). Additional information and guidance may be found in Rule 329 IAC 9-5-7(f)(1)(L) and Chapter 3 of the Remediation Program Guide.
2. The Cover Sheet should be attached as cover to your QMR submittal. The directions for the required QMR format are not required to be attached.
3. Depending on the nature of the project, some of the following sections or appendices may not be applicable. If this is the case, do not leave the section blank, omit, or reorder the appendices. Instead, enter "Not Applicable" or other explanation to indicate that the section does not apply or that information is not available, and why.

A. FACILITY INFORMATION		
Quarter: Q2	Year: 2024	FACILITY IDENTIFICATION NUMBER: NA
Facility Name: MPL Putnam Response		LUST Incident Number(s): NA
Street Address (number and street): 39.652667, -86.761000		
City: Fillmore	County: Putnam	ZIP Code: 46128
B. CURRENT SITE PRIORITY INFORMATION		
Was free product present this quarter?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Are vapors detected in any confined spaces (basements, sewers, etc.)?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Are utilities impacted or likely to be acting as conduits for contaminant migration?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Are any drinking water wells impacted?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
C. SAMPLING INFORMATION		
Purpose for monitoring:	<input type="checkbox"/> Site Characterization <input checked="" type="checkbox"/> Remediation Progress <input type="checkbox"/> Plume Stability <input type="checkbox"/> Closure	
Product type:	<input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Waste Oil <input checked="" type="checkbox"/> Other natural gasoline	
Number of monitoring wells sampled this quarter:	19	
Number of monitoring wells installed:	19	
Groundwater sampling method:	<input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> No Purge <input type="checkbox"/> Purge	
Groundwater analytical method(s):	<input checked="" type="checkbox"/> VOCs <input type="checkbox"/> SVOCs <input type="checkbox"/> PAHs <input type="checkbox"/> Metals	
D. SYSTEM INFORMATION		
Active remediation system: No	System type:	Start-up date (month, day, year):
Number of extraction wells:		
Number of air sparge wells:		
Percent of time system was operational this quarter:		%

**E. TANK(S) OWNER INFORMATION**

Owner Name: Marathon Pipeline Company, LLC		
Street Address (number and street): 539 South Main Street		
City: Findley	State: OH	ZIP Code: 45840
Contact Person: Kyle Strobel	Telephone Number: 317-213-0537	
E-mail Address: kastrobel@marathonpetroleum.com		

**F. REPORT PREPARER INFORMATION**

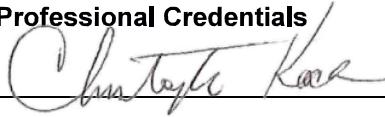
Company Name: Antea Group		
Street Address (number and street): 111 Westport Plaza Drive, 6th Floor		
City: St. Louis	State: MO	ZIP Code: 63146
Contact Person: Blake Ford	Telephone Number: 314-240-1468	
E-mail Address: blake.ford@anteagroup.us		

**G. CERTIFICATION OF REPORT COMPLETION**

I, the undersigned environmental professional, hereby attest to the best of my knowledge and belief that the statements in this document and all attachments are true, accurate, and completed per 329 IAC 9-5-7(f)(1)(L). I certify that the attached report was submitted to IDEM Leaking Underground Storage Tank Section on the date listed below.

Name	Position	Company	Date (month, day, year)
Christopher Kocka, IN PG# 2701	Senior Project Manager	Antea Group	06/26/2024

**Environmental Professional Credentials**

Signature:  Date (month, day, year): 06/26/2024

Please note, per 329 IAC 9, this document must be signed by a Registered Professional Engineer, a Licensed Professional Geologist, a Certified Hazardous Materials Manager, or a Professional Soil Scientist. All must be specifically certified in the State of Indiana.

**Additional Signatures (as appropriate or desired)**

Signature:  Date (month, day, year): 06/26/2024

Printed name: Blake Ford

Signature: \_\_\_\_\_ Date (month, day, year): \_\_\_\_\_

Printed name: \_\_\_\_\_

# REQUIRED QMR REPORT FORMAT

Please attach the Quarterly Monitoring Report (QMR) Cover Sheet to your QMR submittal. The QMR should follow the outline and section headings one (1) through six (6) provided below.

## EXECUTIVE SUMMARY

Provide a brief discussion and summary of the project.

## 1. SITE DESCRIPTION

### Regional Location

Describe the regional location and provide figures.

1. Township, range, and section on a 7.5-minute series United States Geological Survey (USGS) topographic map as **Figure 1**.
2. An appropriately scaled regional map of the site as **Figure 2**.

### Site Location

Describe the site location.

1. Physical description of the site and discussion of present and potential future land use of the subject property (i.e. industrial, commercial, or residential).
2. Identify all adjacent properties in the four (4) principal compass directions and include historical (if known) uses.
3. A scaled plan of the subject site and adjacent properties should be provided as **Figure 3**. The figure should also include site buildings or former buildings, location of current and former USTs and excavation extents, groundwater monitoring wells, underground utilities, storm drains, spill areas, etc.

## 2. FREE PRODUCT RECOVERY

Provide a brief description of free product recovery activities for this quarter. Submit data in **Table 1**.

## 3. ACTIVE REMEDIATION SYSTEM INFORMATION

Discuss remediation system and function.

1. Details on type of system. List wells used as part of the engineered system (soil vapor extraction, dual-phase extraction or air sparge). Provide details on pulsed operation.
2. Details on history of system (original start-up date, extensive down time, repairs other than standard maintenance, rebound check).
3. Percent of time system was operational this quarter. Explanation if system was off anytime during the quarter (e.g. maintenance, repair, rebound check).
4. Details on methods for air, water, and vacuum sampling.

## 4. SAMPLING METHOD DESCRIPTION

Provide a general overview of the groundwater sampling event.

1. Method used to measure depth to water in each well (also depth to free product if applicable) and describe the method used for well purging (e.g., dedicated well pump, bailer, pump) and include the volume purged.
2. How the groundwater samples were collected from each well and describe the sample container(s) into which they were transferred.
3. Identify any duplicate samples or any samples that will be submitted for matrix spike/matrix spike duplicate (MS/MSD) analysis. Note: MS/MSD samples are not required during corrective action monitoring activities (Remediation Closure Guide: Chapter 3, Table 3-A) unless otherwise directed by IDEM staff.
4. State whether samples for metals analysis were filtered or unfiltered. If filtered, state the reason why and the size (in microns) of the filter used.
5. Describe all decontamination procedures if non-dedicated sampling equipment was used. Describe how decontamination and purge water was managed.
6. Depth-to-groundwater measurements should be included in **Table 2**.
7. Groundwater sample location should be presented on **Figure 4**.
8. Field notes, stability parameter measurements, and field screening data should be presented in **Appendix E**.



## 5. DATA DISCUSSION AND RESULTS

### Groundwater Analytical Results

Provide a brief overview of the groundwater analytical results including the results of the quality control samples (e.g., MS/MSD, duplicates, trip, blanks).

1. The groundwater analytical results should be compared against the appropriate screening levels and presented in **Table 3**.
2. Analytical results are also required to be presented on a site map as **Figure 4**.
3. Gauging data and groundwater flow direction should be presented in **Figure 5**.
4. Map(s) displaying the lateral extent of individual Chemicals of Concern (COCs) (i.e., Benzene, Naphthalenes, Trimethylbenzenes, or any other COCs driving investigation and cleanup) should be included as **Figures 6 a, b, c, etc.**
5. Graphs or plots depicting trend data for individual COCs driving investigation and cleanup should be presented in **Appendix D**.
6. A hard copy of the laboratory certificates of analysis and chain of custody form(s) should be included as **Appendix E**.
7. Groundwater data summary tables should be included in **Appendix B**.

### Miscellaneous Sampling Data and Results

Provide a general overview of any additional sampling activities that occurred at the site during the quarter. Examples include: surface water sampling, soil sampling, air monitoring, vapor sampling, etc. Discuss the method by which the samples were collected and all observations made during sampling activities. Analytical data should be included in **Table 4**. Data summary tables should be included in **Appendix C**.

## 6. CONCLUSIONS

Provide a professional conclusion and recommendations regarding the quarterly monitoring activities conducted for the subject release(s). Identify any information or data gaps that exist. Any requests to change the approved corrective action plan, including system and sampling modifications must be submitted under separate cover for staff consideration.

## TABLES

1. Free Product
2. Current Groundwater Gauging
3. Current Groundwater Data
4. Current Miscellaneous Data

*Presentation formats attached.*

## FIGURES

1. Site Map 7.5 Topographic
2. Regional/Area Map
3. Site Map With Soil Boring Locations And Soil Summary Data
4. Site Map With Monitoring Well Locations And Current Quarterly Data
5. Site Map With Current Groundwater Flow Direction Identified
6. Site Map(s) With Groundwater Contaminant Extent(s) (COCs Driving Cleanup)

*All maps must show graphic scale and indicate north.*

## APPENDICES

### A. System Performance

*Tables should include the system parameters as designed in the approved Corrective Action Plan. Each system type will have its own information to provide as listed below. Develop appropriate tables to present the needed information. The system performance data should be provided for the most recent eight (8) quarters, include a cumulative total as appropriate.*

#### Tables

##### Soil Vapor Extraction

1. Air flow rate for entire system in cubic feet per minute (CFM)
2. Influent and effluent contaminant concentrations in vapor
3. VOC's removed in pounds, include cumulative total

##### Groundwater Extraction

1. Gallons of groundwater extracted, include cumulative total
2. Extraction wells drop tube depths
3. Influent and effluent contaminant concentrations in water

##### Dual-Phase Extraction

1. Gallons of groundwater extracted, include cumulative total
2. Air flow rate for entire system in CFM
3. Extraction wells drop tube depths
4. Vacuum in extraction wells and monitoring wells
5. Influent and effluent contaminant concentrations in water and vapor

##### Air Sparge

1. Air flow rate for entire system in CFM
2. Dissolved oxygen (DO) concentrations in monitoring wells

##### Mobile Vacuum Extraction

1. Gallons of groundwater extracted, include cumulative total
2. Hours operated

#### Figures and Plots

1. Concentration vs Time plots for influent soil vapor for the COCs driving the cleanup.
2. Concentration vs Time plots for influent groundwater for the COCs driving the cleanup.
3. Vacuum reading for each monitoring well illustrated on a site map.

**B. Groundwater Data Summary Tables (most recent eight (8) quarters)**

Table 1. Groundwater Gauging and Well Data Summary

Table 2. Groundwater Data Summary

**C. Miscellaneous Data Summary Tables (most recent eight (8) quarters)**

*Format needed tables using templates provided as a guide.*

*Add summary tables as appropriate.*

**D. Trend Data**

*Provide trend data, graphs and/or plume stability modeling for the COCs driving the cleanup.*

*Identify messenger, sentinel and perimeter of compliance wells for plume stability modeling.*

*IDEM recommends using the current version of EPA's ProUCL software when conducting trend analyses.*

**E. Field And Lab Data**

*Provide field sampling sheets.*

*Provide field data sheets.*

*Provide lab analytical information. Include data sheets, chain-of-custody forms, MDDR's documentation.*

**TABLE FORMATS**

**Table 1. Free Product Recovery**

Volumes in gallons

	MW-ID	MW-ID	MW-ID	MW-ID
Total volume to date				
Date (this quarter) <i>(month, day, year)</i>				
Date (this quarter) <i>(month, day, year)</i>				

**Table 2. Current Groundwater Gauging**

Gauging Date *(all units in feet)*

	Top of Casing Elevation	Depth to Ground Water	Groundwater Elevation	Free Product Thickness	Corrected Groundwater Elevation	Monitoring Well Depth	Monitoring Well Screen Interval
MW-ID							
MW-ID							

**Table 3. Current Groundwater Data**

Sample Date *(all results in µg/l)*

	COC	COC	COC	COC	COC
Residential Tap Water Screening Level					
Residential Vapor Intrusion Screening Level					
MW-ID					
MW-ID					
MW-ID					
MW-ID					

**Table 4. Current Miscellaneous Data**

Format tables using templates above.

**Appendix B. Groundwater Summary Tables**

**Table 1. Groundwater Gauging and Well Data Summary**

List gauging data for only the most recent eight (8) quarters in ascending order.  
All units in feet.

	Date <i>(month, day, year)</i>	Top of Casing Elevation	Depth to Ground Water	Groundwater Elevation	Free Product Thickness	Corrected Groundwater Elevation	Monitoring Well Depth	Monitoring Well Screen Interval
MW-ID	Date							
	Date							
MW-ID	Date							

**Table 2. Groundwater Data Summary**

List past data for only the most recent eight (8) quarters in ascending order.  
All units in µg/l.

	Date <i>(month, day, year)</i>	COC	COC	COC	COC	COC
Residential Tap Water Screening Level						
Residential Vapor Intrusion Screening Level						
MW-ID	8 <sup>th</sup> quarter					
	7 <sup>th</sup> quarter					
	6 <sup>th</sup> quarter					
	5 <sup>th</sup> quarter					
	4 <sup>th</sup> quarter					
	3 <sup>rd</sup> quarter					
	2 <sup>nd</sup> quarter					
	Current qtr					
MW-ID	8 <sup>th</sup> quarter					
	7 <sup>th</sup> quarter					

Bold results that are greater than residential tap water screening levels.  
Use separate tables for VOCs, SVOCs, PAHs, and Metals, as site requires.

A glass globe with a grid pattern sits on a mossy rock. The globe is filled with water and reflects the surrounding greenery and sky. A small green square with a white icon is in the top left corner of the globe area.

# Quarterly Monitoring Report

Marathon Pipe Line LLC  
E. County Rd 50, Fillmore, IN  
39.652667, -86.761000

Antea®Group

Understanding today.  
Improving tomorrow.

**PREPARED FOR:**

Indiana Department of  
Environmental Management  
100 N. Senate Avenue  
Indianapolis, IN 46204

**PREPARED BY**

Antea Group St. Louis, MO  
June 26, 2024  
Project MPL Putnam Monitoring 2024

[us.anteagroup.com](https://us.anteagroup.com)

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- Table 2 – Monitoring Well Gauging Table
- Table 3 – Groundwater Analytical Results
- Table 4 – Sediment Analytical Result
- Table 5 – Surface Water Analytical Results

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- Figure 2 – Regional Map
- Figure 3 – Adjacent Property Map
- Figure 4 – Groundwater Elevation Contour Map
- Figure 5 – Groundwater Analytical Results
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- Figure 7 – Sediment Sample Locations
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### **Appendices**

- Appendix A– Low Flow Data
- Appendix B– Groundwater Laboratory Analytical Data
- Appendix C – Sediment Laboratory Analytical Data
- Appendix D – Surface Water Laboratory Analytical Data



## EXECUTIVE SUMMARY

Antea® Group has prepared this *Quarterly Monitoring Report* (QMR) on behalf of Marathon Pipe Line LLC (MPL) in response to the letter dated July 10, 2023, from the Indiana Department of Environmental Management (IDEM). The purpose of this QMR is to provide a written summary of the ongoing groundwater monitoring, sediment, and surface water sampling activities being performed in response to a release of natural gasoline from MPL's RIO pipeline on September 25, 2022. An Incident report was filed following the release, which documents activities and can be found under the IDEM Virtual file cabinet #83388594. A topographic and regional map are included as **Figure 1** and **Figure 2**, respectively. This QMR also details activities requested in the IDEM correspondence dated December 15, 2023, provided in response to submittal of the third quarter 2023 QMR.

A summary of the initial response actions and soil and groundwater investigation activities is outlined within the *Further Site Investigation Report* (Antea Group, April 20, 2023). Following the release, periodic Site visits were conducted following precipitation events and included the inspection of the adjacent creek and surrounding area for the presence of residual light non-aqueous phase liquids (LNAPL), gauging of groundwater monitoring wells, and product recovery from temporary wells that exhibited measurable volumes of LNAPL.

Groundwater monitoring activities were performed during the second quarter of 2024 and included the collection of samples from 19 monitoring wells during each event, as well as the collection of depth to water measurements. Surface water samples were collected during the second quarter of 2024 from four (4) locations which included one (1) location upstream of the release location and three (3) downstream. Sediment samples were collected during the second quarter of 2024 from four (4) areas within the unnamed tributary of Dyer Creek. Each sediment location included the collection of a sample from each bank of the unnamed tributary. Sediment samples planned for collection from the middle of the tributary were not collected due to concerns with personnel safety due to active water flow.

## 1.0 BACKGROUND INFORMATION

### 1.1 REGIONAL LOCATION

The Site is located north of East County Road 50 South in Fillmore, Putnam County, Indiana 46128. The Site coordinates are 39°65'52.72"North and 86°76'28.68"West, recorded along the right-of-way (ROW) near the pipeline release location.

### 1.2 SITE LOCATION

The Site is located along the pipeline ROW in an area cleared of vegetation, however, it is surrounded by forest vegetation. Agricultural land is located beyond the forested area to the north, east, and south of the release and includes the unnamed tributary of Dyer Creek, an ephemeral stream. Residential properties are located beyond the forested area to the southwest, west, and northwest. The closest residential property is located approximately 800 feet west of the release. The land use of the Site and surrounding area are not anticipated to change in the immediate future. An Adjacent Property Map is included in **Figure 3**.

### 1.3 SURFICIAL AND UNCONSOLIDATED SOILS

According to the United States Department of Agriculture (USDA) Geographic Database for Putnam County, Site soils consist of many different soil types, including Fox loam, Hennepin loam, Stonelick sandy loam, Shoals silt loam, Miami silt loam, Russell silt loam, and Miami clay loam. The regional area is predominantly characterized by a complicated sequence of former glaciers, glacial meltwaters, and post-glacial precipitation events.

Soils observed during well installation activities generally consisted of topsoil followed by fine and medium grain sands near the surface, mixing with clay as depth increases, until becoming mostly clay, underlain by sandy, gravelly outwash material above a confining clay unit. The clay unit was encountered starting at approximately nine feet below ground surface (bgs) and extending to at least 18 feet bgs in some areas throughout the Site.

### 1.4 HYDROGEOLOGY

The Site is located within the Mississippian – Borden Group Aquifer System near the contact of the Mississippian Blue River and Sanders Groups Aquifer System to the west. This bedrock aquifer system is composed of sandstone, siltstone, mudstone, and shale.

Wells in this system are commonly completed at depths ranging from 35 to 490 feet bgs. Domestic well yields range from two (2) to 60 gallons per minute (gpm); however, some dry locations have been reported. Where bedrock is shallow, risk to contamination from the surface or near surface sources is high.

The nearest named water body is Dyer Creek running northeast and southwest directly adjacent of the release and feeds into Deer Creek approximately 2,158 feet south of the Site.

## 2.0 QUARTERLY MONITORING EVENT

### 2.1 OBJECTIVES OF THE MONITORING EVENT

This QMR has been prepared to provide a comprehensive summary of the groundwater, sediment, and surface water sampling that has been completed during the second quarter 2024. As outlined in IDEM's *Further Site Investigation Report Review* (July 10, 2023), continued quarterly groundwater sampling from the existing monitoring wells and collection of surface water and sediment samples from the unnamed tributary were required.

### 2.2 CHEMICALS OF CONCERN

Groundwater, surface water, and sediment samples were analyzed for volatile organic compounds (VOCs), hexanes, heptane, and nonane via the United States Environmental Protection Agency (USEPA) Method 8260. Groundwater analytical results are compared to the IDEM Risk-Based Closure Guide Published Levels. Chemicals of Concern (COCs) are included in **Table 1**.

Following collection of groundwater samples (six events), surface water samples (three events), and sediments samples (three events), the target COCs have been consistent and as such, MPL respectfully requests that the COCs be revised to include only the following analytes: benzene, toluene, ethylbenzene, xylenes (total), 2-hexanone, hexane, heptane, and nonane. This request was also made in the first quarterly monitoring report dated March 29, 2024.

## 3.0 SITE SPECIFIC INVESTIGATION

### 3.1 GROUNDWATER INVESTIGATION

#### 3.1.1 MONITORING WELL SAMPLING METHOD

Groundwater samples were collected from each monitoring well using a Geotech peristaltic pump, disposable polyethylene tubing, and an AquaTROLL 600. The polyethylene tubing was slowly lowered into each well and secured at the midpoint of the saturated screen. The peristaltic pump can be adjusted between 75 and 500 milliliters per minute (mL/min) but was typically set to approximately 100 mL/min. All wells were purged to a minimum of three (3) well volumes or until water quality parameter readings stabilized. The AquaTROLL 600 flow through cell and water level meter were decontaminated with a phosphate-free liquid detergent followed by a water rinse prior to beginning field activities and between each groundwater sample. All decontamination and purge water were containerized in 55-gallon steel drums and staged for transportation off-site for disposal. The monitoring well purge times, purge volumes, sample date, and sample times were recorded in the field and are provided in the low data sheets that are included in **Appendix A**.

Groundwater samples were collected utilizing the “soda straw method” outlined within the *Groundwater Sampling with Peristaltic Pumps Technical Guidance Document* (IDEM, August 23, 2022). Samples were contained within 40 milliliter (mL) vials preserved with hydrochloric acid (HCl), labeled with unique identifiers, placed in an ice-packed cooler, and transported to Pace Analytical (Pace) in Indianapolis, IN, using appropriate chain-of-custody protocol. Chemicals of concern for the Site are listed in **Table 1**.

#### 3.1.2 MONITORING WELL SAMPLING

Groundwater monitoring during the second quarter of 2024 was completed from April 29 to May 1, 2024. Depth to product (DTP) and depth to groundwater (DTW) measurements were collected from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, and MW-19 utilizing an oil-water interface probe. LNAPL was not measured in any of the monitoring wells during the monitoring event. Gauging data is included in **Table 2**.

Groundwater flow direction from the release location remained consistent with historical observations occurring in a southerly direction. A groundwater elevation contour map based on second quarter 2024 data is included in **Figure 4**.

A duplicate groundwater sample was collected from monitoring well MW-11 and laboratory-provided trip blank samples were included in the sample cooler for Quality Assurance/Quality Control (QA/QC) purposes. Groundwater laboratory analytical results are presented in **Table 3** and groundwater lateral extents are presented in **Figure 5**. Groundwater lateral extents of individual chemicals of concern are presented in **Figure 6**. Groundwater samples were analyzed for VOCs, hexane, heptane, and nonane via USEPA Method 8260.

### 3.2 SEDIMENT INVESTIGATION

On May 1, 2024, a total of eight (8) sediment samples were collected from specific locations within the unnamed tributary of Dyer Creek. The sediment sample locations are shown in **Figure 7**.

Two (2) sediment samples were collected at each location, with one (1) sample being located midway along each bank of the tributary. The third sediment sample from the center of the tributary could not be collected at any sediment sample locations due to the flow of water through the tributary at the time of collection.

Sediment samples were collected from a depth of approximately three (3) inches below the surface of the sediment or bank of the tributary and were collected using a small shovel which was then decontaminated following collection of each sample with a phosphate-free liquid detergent followed by a water rinse. Samples were collected utilizing TerraCore® or equivalent kits and placed into laboratory provided glass sample jars. Samples were labeled with unique identifiers, placed in an ice-packed cooler, and transported to Pace using appropriate chain-of-custody protocol. Sediment samples were analyzed for VOCs, hexane, heptane, and nonane via USEPA Method 8260.

### 3.3 SURFACE WATER INVESTIGATION

On May 1, 2024, surface water samples were collected from four (4) locations of the unnamed tributary of Dyer Creek. Surface water samples were collected as grab samples using a telescoping disposable dip-cup sampler. Samples were collected from several inches below the water surface, midway between the water surface and the bed of the tributary. Caution was used to avoid disturbing sediment near the sampling location.

Samples were containerized within 40 mL vials preserved with hydrochloric acid, labeled with unique identifiers, placed in an ice-packed cooler, and transported to Pace using appropriate chain-of-custody protocol.

All surface water samples were analyzed for VOCs, hexane, heptane, and nonane via USEPA Method 8260.

The sample locations are presented in **Figure 8**.

## 4.0 ANALYTICAL RESULTS

### 4.1 GROUNDWATER ANALYTICAL RESULTS

Groundwater analytical results were compared to the following IDEM 2024 Published Level Table for Risk-Based Closure Guide (R2, Waste #0046-R2):

- Groundwater – Long Term Residential

The results of the April 29 through May 1, 2024, groundwater sampling event indicated that concentrations greater than IDEM's Groundwater Residential Screening Levels (RSLs) were observed for the following:

- Benzene in eight (8) of the 19 monitoring wells
- Heptane in five (5) of the 19 monitoring wells
- 2-Hexanone in groundwater at one (1) of the 19 monitoring wells

There were no other VOCs detected above IDEM's Groundwater RSLs for samples collected during the April 29 through May 1, 2024, groundwater sampling event. The results of the groundwater QA/QC samples (duplicate collected at MW-11 and trip blank) were within the appropriate ranges. A summary of the concentrations above the RSLs is included in the table below:

Well	Sample Date	2-Hexanone	Benzene	Heptane
		ug/L	ug/L	ug/L
<b>IN RBC GW LONG TERM RES</b>		<b>40</b>	<b>5</b>	<b>6</b>
MW-03	4/30/2024	< 20.0	<b>96.3</b>	<b>10.9 M5</b>
MW-04	4/30/2024	< 20.0	<b>18.6</b>	< 5.0 M5
MW-09	4/30/2024	<b>195</b>	<b>763</b>	<b>46.1 M5</b>
MW-11	4/30/2024	< 20.0	<b>137</b>	< 5.0 M5
MW-12	4/30/2024	< 20.0	<b>272</b>	< 5.0 M5
MW-13	5/1/2024	< 20.0	< 1.0	<b>32.6 M5</b>
MW-15	4/31/2024	< 20.0	< <b>8.2</b>	< <b>5.0 M5</b>
MW-17	4/30/2024	< 20.0	<b>161</b>	<b>8.5 M5</b>

A summary of groundwater analytical results is also included in **Table 3**. Figures depicting concentrations above the RSLs and the lateral extent of COCs are included as **Figure 5** and **Figure 6**, respectively. A copy of the laboratory analytical report is included in **Appendix B**.

#### 4.2 SEDIMENT ANALYTICAL RESULTS

The sediment analytical results were compared to the USEPA Region 4 ecological screening values (ESVs) for Hazardous Waste Sites for Narcotic and non-Narcotic Modes of Action (Tables 2a and 2b), and refinement screening value (RSVs).

The May 1, 2024, sediment sampling event indicated concentrations of hexane were present in two (2) of the eight (8) sediment samples that were above the USEPA’s Region 4 ESVs. The two samples exceeding USEPA’s Region 4 ESVs hexane concentrations include SS-02-RB and SS-03-RB.

SS-02-RB results indicated concentrations of benzene, total xylenes, toluene, 1,2,4 trimethylbenzene, acetone, and ethylbenzene were present above the USEPA’s Region 4 ESVs. The results for 1,3,5-Trimethylbenzene for SS-02-RB were below detection limits, however; the detection limit was above the ESV and RSV, which was confirmed with the duplicated sample collected. SS-03-RB did not have any additional concentrations above ESVs or RSVs. Further explanation is provided within **Section 5.1**.

A summary of the sediment analytical results is included in **Table 4** and the locations are presented in **Figure 7**. A copy of the laboratory analytical report is included in **Appendix C**.

#### 4.3 SURFACE WATER ANALYTICAL RESULTS

The surface water analytical results were compared to the Indiana Water Quality Standards (WQSs; Table 6-4) and for the Ecological Risk Assessment, were also compared against USEPA’s Region 4 ESVs. The second quarter 2024 surface water sample results were below laboratory report limits for all COCs, Indiana WQS values, and USEPA’s Region 4 ESVs. Further explanation is provided within **Section 5.2**.

A summary of the surface water analytical results is included in **Table 5** and the locations are presented on **Figure 8**. A copy of the laboratory analytical report is included in **Appendix D**.

## 5.0 ECOLOGICAL RISK EVALUATION

As requested in the IDEM correspondence dated December 15, 2023, an ecological risk evaluation was conducted utilizing the surface water and sediment analytical results collected within the unnamed tributary of Dyer Creek.

The qualitative ecological risk evaluation was conducted to evaluate the potential for adverse ecological effects from the natural gasoline release to aquatic biota inhabiting the tributary of Dyer Creek and to wildlife that may forage/prey on stream-dwelling biota. The ecological risk evaluation focuses on the following criteria:

- Comparisons of COC concentrations in ecologically relevant creek media (i.e., surface water and sediment) to screening benchmarks that correspond to a low probability of unacceptable risks to the vast majority of the biological organisms in a given exposure medium;
- Chemical-specific physical and toxicity information for chemicals exceeding screening benchmarks. Screening benchmarks applied for comparison to the tributary of Dyer Creek surface water and sediment data are the USEPA Region 4 ESVs (USEPA 2018).

### 5.1 SEDIMENT RESULTS

Consistent with surface water results, the majority of the COCs in sediment were either not detected above the laboratory reporting limit or were detected below sediment ESVs. Concentrations of analytes above ESVs continued to be present from samples SS-02-RB and SS-03-RB locations, which is consistent with the location where the release occurred.

Hexane was detected above the ESV (0.00094 milligrams per kilogram (mg/kg)) in two (2) of the eight (8) sediment samples and the one (1) duplicate sample collected in May of 2024. Hexane concentrations in SS-02-RB sediment continued to exceed the ESV from August 2023 to May 2024, however have shown fluctuations and a general downward trend from 167 mg/kg to 63.3 mg/kg. Hexane concentrations in SS-03-RB sediment have also shown fluctuations and remain above the ESV as of the May 2024 sampling event (0.007 mg/kg).

Benzene concentrations were above the ESV (0.01 mg/kg) in SS-02-RB and its duplicate in May 2024 (0.95 mg/kg and 1 mg/kg respectively) however the results do not exceed the RSV for this compound (2.185 mg/kg).

Toluene concentrations were above the ESV (0.01 mg/kg) in SS-02-RB and its duplicate in May 2024 (0.96 mg/kg and 1.3 mg/kg respectively) however the results do not exceed the RSVs for this compound (2.074 mg/kg). Total xylenes concentrations were above the ESV (0.13 mg/kg) in SS-02-RB and its duplicate in May 2024 (2 mg/kg and 3.4 mg/kg respectively) however the results do not exceed the RSVs for this compound (1.074 mg/kg).

1,2,4 trimethylbenzene concentrations were above the ESV and RSV (0.097 mg/kg and 0.361 mg/kg respectively) in SS-02-RB and its duplicate in May 2024 (0.43 mg/kg and 0.82 mg/kg respectively). 1,3,5 trimethylbenzene concentrations were above the ESV and RSV (0.164 mg/kg and 0.354 mg/kg respectively) in the May 2024 duplicate sample (0.60 mg/kg).

The center channel at SS-02 and SS-03, identified as SS-02-C and SS-03-C, respectively, were sampled only in August 2023 due to elevated flow conditions encountered during the February 2024 and May 2024 events. Antea Group will continue to attempt to collect the center channel samples on a quarterly basis.



## 5.2 SURFACE WATER RESULTS

The COCs that were either not detected above the laboratory reporting limit or were detected at concentrations below the ESV (i.e., below chronic surface water ESVs), indicate an absence of adverse ecological effects. Hexane was detected in one (1) sample at location SW-03 in August 2023 at a concentration (138 µg/L) above the ESV of 0.6 µg/L; however, was not subsequently detected in surface water at the same location in January 2024 or May 2024.

It is notable that the ESV is derived from the Oak Ridge National Laboratory document, *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision* (Suter and Tsao 1996), which also identified a chronic effect value for fish of 65,712 µg/L. As such, there is considerable variation in the range of effect values for aquatic biota presumed to be exposed to hexane.

## 5.3 ADDITIONAL DETECTIONS ABOVE ESVS

The majority of COCs observed in surface water or sediment samples were detected below their respective ESVs and are detailed within **Section 5.1** and **5.2**. The remainder of COCs observed within the surface water or sediment samples are as follows:

- Acetone: Detected concentrations in the parent sample SS-02-RB and its duplicate (lab detection limits of <7.9 mg/kg and <8.1 mg/kg respectively), above the ESV of 0.065 mg/kg; the sampled concentration is not above the RSV for this compound (38.133 mg/kg).
- Ethylbenzene: Detected concentrations in the parent sample SS-02-RB and its duplicate (lab detection limits of <0.39 mg/kg and <0.40 mg/kg respectively), above the ESV of 0.29 mg/kg; the sampled concentration is not above the RSV for this compound (1.467 mg/kg).

## 5.4 PHYSICAL AND TOXICOLOGICAL CONSIDERATIONS

In addition to potential direct contact effects, some constituents in aquatic systems may partition to organic ligands and the lipid component of biological tissues, potentially resulting in bioaccumulation or food chain impacts to high-order aquatic organisms (i.e., predatory fish) in the watercourse and to semi-aquatic wildlife (i.e., birds or mammals) that may consume fish and benthic infauna. As such, the potential uptake of such contaminants and subsequent upward transport through the food chain to invertivores, omnivorous, and piscivorous birds and mammals that may utilize the tributary of Dyer Creek for foraging opportunities represents a potentially complete fate process that requires consideration in evaluating effects to upper trophic level wildlife.

Hexane was detected most frequently in sediment and surface water at concentrations above screening criteria, and therefore represents the constituent likely to drive potentially unacceptable ecological risks. Risks to wildlife, however, are unlikely given the high rate of volatilization anticipated from these media to air and the relatively low log organic-carbon and log octanol-water partition coefficients. Additionally, the low estimated bioconcentration factor reported for fish (453) suggests that this compound does not concentrate significantly in aquatic organisms (ATSDR 1999).

Although there is the possibility of adverse effects to instream biota (e.g., fish, benthic macroinvertebrates) from hexane, benzene, toluene, and total xylenes exposures near SS-02 and SS-03, bank-to-bank concentrations are generally decreasing at these locations and any ecological effects are likely to be transient and localized.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

The second quarter 2024 groundwater sampling results above the IDEM's RSLs for Groundwater Long-Term Residential in eight (8) of the 19 monitoring wells. Concentrations from the second quarter 2024 groundwater analytical results show some variability, but generally continue to demonstrate the stability of groundwater impacts at the Site.

The second quarter 2024 sediment sampling results were above the USEPA Region 4's ESVs in two (2) of the eight (8) samples collected. The second quarter of 2024 surface water sampling results were below all Indiana WQSS, USEPA Region 4's ESVs, and laboratory detection limits for all COCs and at all surface water sample locations.

Based on the sediment and surface water analytical data and the physical/toxicological information for the compound with the highest potential for ecotoxicological effects (i.e., hexane), the likelihood of adverse effects to the aquatic community of organisms in the tributary of Dyer Creek, and potential wildlife that may forage on these instream resources, is considered low. Ongoing surface water and sediment monitoring conducted on a quarterly basis will be used to document the anticipated downward trend in COCs.

Based on the groundwater, surface water, and sediment analytical results collected to date, MPL is proposing to continue quarterly collection of samples to monitor Site conditions and seasonal variability.

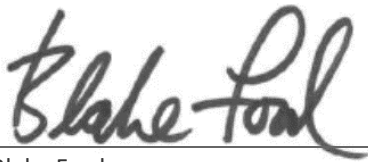
On February 23, 2023, IDEM granted MPL's request to modify the Site inspection visit frequency to instances where precipitation accumulations greater than 0.75 inches over a 24-hour time frame were observed. As such, a total of ten additional Site inspections were performed in 2023. The Site inspections did not observe free product, surface water sheen or detrimental conditions within the tributary; therefore, MPL respectfully requests that the precipitation-based Site inspection requirement be eliminated beginning with the third quarter 2024.



## 7.0 REMARKS

The recommendations contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. The contract between Antea USA, Inc. and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.

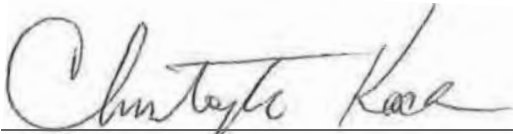
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## 8.0 CONTACT INFORMATION

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## Tables

Table 1 – Chemicals of Concern (COCs)

Table 2 – Monitoring Well Gauging Table

Table 3 – Groundwater Analytical Results

Table 4 – Sediment Analytical Result

Table 5 – Surface Water Analytical Results

**Table 1 - Chemicals of Concern (COCs)**

Marathon Pipe Line LLC  
39.652667, -86.761000 E. County Rd 50, Fillmore, IN

1,1,1,2-Tetrachloroethane	1,4-Dichlorobenzene	Carbon tetrachloride	Methyl-tertiary-butyl ether
1,1,1-Trichloroethane	1-Methylnaphthalene	Chlorobenzene	Naphthalene
1,1,2,2-Tetrachloroethane	2,2-Dichloropropane	Chloroethane	n-Butylbenzene
1,1,2-Trichloroethane	2-Butanone (MEK)	Chloroform	Nonane
1,1-Dichloroethane	2-Chlorotoluene	Chloromethane	n-Propylbenzene
1,1-Dichloroethylene	2-Hexanone	cis-1,2-Dichloroethene	p-Isopropyltoluene
1,1-Dichloropropene	2-Methylnaphthalene	cis-1,3-Dichloropropene	sec-Butylbenzene
1,2,3-Trichlorobenzene	4-Chlorotoluene	Dibromochloromethane	Styrene
1,2,3-Trichloropropane	Acetone	Dibromomethane	tert-Butylbenzene
1,2,4-Trichlorobenzene	Acrolein	Dichlorodifluoromethane	Tetrachloroethene
1,2,4-Trimethylbenzene	Acrylonitrile	Ethyl methacrylate	Toluene
1,2-Dibromoethane (EDB)	Benzene	Ethylbenzene	trans-1,2-Dichloroethene
1,2-Dichlorobenzene	Bromobenzene	Heptane	trans-1,3-Dichloropropene
1,2-Dichloroethane	Bromochloromethane	Hexachlorobutadiene	trans-1,4-Dichloro-2-butene
1,2-Dichloropropane	Bromodichloromethane	Hexane	Trichloroethene
1,3,5-Trimethylbenzene	Bromoform	Iodomethane	Trichlorofluoromethane
1,3-Dichlorobenzene	Bromomethane	Isopropylbenzene	Vinyl Acetate
1,3-Dichloropropane	Carbon disulfide	Methyl Isobutyl Ketone	Vinyl chloride

Table 2  
Monitoring Well Gauging Table  
Marathon Pipe Line - Fillmore, IN

Monitoring Well	Date	Table 2- Groundwater Gauging Data										
		Latitude	Longitude	TOC Elevation	Total Depth	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Level Elevation* (ft)	Qualifiers	Precipitation (ft)	Comments
MW-01	2/23/2023	39.65516508	-86.76216195	767.175294		NP	6.35	0.00	760.83		0.00167	
MW-01	3/3/2023	39.65516508	-86.76216195	767.175294		NP	4.77	0.00	762.41		0.07000	
MW-01	3/24/2023	39.65516508	-86.76216195	767.175294		NP	5.92	0.00	761.26		0.81400	
MW-01	4/21/2023	39.65516508	-86.76216195	767.175294		NP	6.49	0.00	760.69		0.23000	
MW-01	5/16/2023	39.65516508	-86.76216195	767.175294		NP	6.55	0.00	760.63		0.04000	
MW-01	6/12/2023	39.65516508	-86.76216195	767.175294		NP	7.14	0.00	760.04		0.64000	
MW-01	7/3/2023	39.65516508	-86.76216195	767.175294		NP	6.48	0.00	760.70		0.73000	
MW-01	8/22/2023	39.65516508	-86.76216195	767.175294		NP	6.67	0.00	760.51		0.00000	
MW-01	11/13/2023	39.65516508	-86.76216195	767.175294		NP	6.82	0.00	760.36		0.00000	
MW-01	1/11/2024	39.65516508	-86.76216195	767.175294		NP	6.09	0.00	761.09		0.95200	
MW-01	1/29/2024	39.65516508	-86.76216195	767.175294		NP	5.99	0.00	761.19		1.13400	
MW-01	4/3/2024	39.65516508	-86.76216195	767.175294		NP	6.17	0.00	761.01		0.17750	
MW-01	4/29/2024	39.65516508	-86.76216195	767.175294		NP	6.58	0.00	760.60		0.00000	
MW-02	2/23/2023	39.65522391	-86.76218538	767.698801		NP	7.52	0.00	760.18		0.00167	
MW-02	3/3/2023	39.65522391	-86.76218538	767.698801		NP	6.21	0.00	761.49		0.07000	
MW-02	3/24/2023	39.65522391	-86.76218538	767.698801		NP	6.04	0.00	761.66		0.81400	
MW-02	4/21/2023	39.65522391	-86.76218538	767.698801		NP	6.15	0.00	761.55		0.23000	
MW-02	5/16/2023	39.65522391	-86.76218538	767.698801		NP	6.09	0.00	761.61		0.04000	
MW-02	6/12/2023	39.65522391	-86.76218538	767.698801		NP	6.50	0.00	761.20		0.64000	
MW-02	7/3/2023	39.65522391	-86.76218538	767.698801		NP	6.55	0.00	761.15		0.73000	
MW-02	8/22/2023	39.65522391	-86.76218538	767.698801		NP	6.43	0.00	761.27		0.00000	
MW-02	11/13/2023	39.65522391	-86.76218538	767.698801		NP	6.45	0.00	761.25		0.00000	
MW-02	1/11/2024	39.65522391	-86.76218538	767.698801		NP	5.93	0.00	761.77		0.95200	
MW-02	1/29/2024	39.65522391	-86.76218538	767.698801		NP	5.66	0.00	762.04		1.13400	
MW-02	4/3/2024	39.65522391	-86.76218538	767.698801		NP	5.84	0.00	761.86		0.17750	
MW-02	4/29/2024	39.65522391	-86.76218538	767.698801		NP	6.34	0.00	761.36		0.00000	
MW-03	2/23/2023	39.65535833	-86.7622446	769.003061		NP	6.04	0.00	762.96		0.00167	
MW-03	3/3/2023	39.65535833	-86.7622446	769.003061		NP	3.79	0.00	765.21		0.07000	
MW-03	3/24/2023	39.65535833	-86.7622446	769.003061		NP	4.90	0.00	764.10		0.81400	
MW-03	4/21/2023	39.65535833	-86.7622446	769.003061		NP	6.33	0.00	762.67		0.23000	
MW-03	5/16/2023	39.65535833	-86.7622446	769.003061		NP	6.27	0.00	762.73		0.04000	
MW-03	6/12/2023	39.65535833	-86.7622446	769.003061		NP	6.59	0.00	762.41		0.64000	
MW-03	7/3/2023	39.65535833	-86.7622446	769.003061		NP	6.13	0.00	762.87		0.73000	
MW-03	8/22/2023	39.65535833	-86.7622446	769.003061		NP	6.65	0.00	762.35		0.00000	
MW-03	11/13/2023	39.65535833	-86.7622446	769.003061		NP	6.59	0.00	762.41		0.00000	
MW-03	1/11/2024	39.65535833	-86.7622446	769.003061		NP	5.91	0.00	763.09		0.95200	
MW-03	1/29/2024	39.65535833	-86.7622446	769.003061		NP	5.51	0.00	763.49		1.13400	
MW-03	4/3/2024	39.65535833	-86.7622446	769.003061		NP	5.57	0.00	763.43		0.17750	
MW-03	4/29/2024	39.65535833	-86.7622446	769.003061		NP	6.66	0.00	762.34		0.00000	
MW-04	2/23/2023	39.65551495	-86.76262342	769.955380		NP	5.30	0.00	764.66		0.00167	
MW-04	3/3/2023	39.65551495	-86.76262342	769.955380		NP	4.71	0.00	765.25		0.07000	
MW-04	3/24/2023	39.65551495	-86.76262342	769.955380		NP	4.56	0.00	765.40		0.81400	
MW-04	4/21/2023	39.65551495	-86.76262342	769.955380		NP	5.51	0.00	764.45		0.23000	

Table 2  
Monitoring Well Gauging Table  
Marathon Pipe Line - Fillmore, IN

Monitoring Well	Date	Table 2- Groundwater Gauging Data										
		Latitude	Longitude	TOC Elevation	Total Depth	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Level Elevation* (ft)	Qualifiers	Precipitation (ft)	Comments
MW-04	5/16/2023	39.65551495	-86.76262342	769.955380		NP	5.56	0.00	764.40		0.04000	
MW-04	6/12/2023	39.65551495	-86.76262342	769.955380		NP	5.85	0.00	764.11		0.64000	
MW-04	7/3/2023	39.65551495	-86.76262342	769.955380		NP	5.59	0.00	764.37		0.73000	
MW-04	8/22/2023	39.65551495	-86.76262342	769.955380		NP	5.91	0.00	764.05		0.00000	
MW-04	11/13/2023	39.65551495	-86.76262342	769.955380		NP	5.77	0.00	764.19		0.00000	
MW-04	1/11/2024	39.65551495	-86.76262342	769.955380		NP	5.35	0.00	764.61		0.95200	
MW-04	1/29/2024	39.65551495	-86.76262342	769.955380		NP	4.95	0.00	765.01		1.13400	
MW-04	4/3/2024	39.65551495	-86.76262342	769.955380		NP	4.81	0.00	765.15		0.17750	
MW-04	4/29/2024	39.65551495	-86.76262342	769.955380		NP	5.49	0.00	764.47		0.00000	
MW-05	2/23/2023	39.65522583	-86.76285483	767.671544		NP	3.73	0.00	763.94		0.00167	
MW-05	3/3/2023	39.65522583	-86.76285483	767.671544		NP	3.45	0.00	764.22		0.07000	
MW-05	3/24/2023	39.65522583	-86.76285483	767.671544		NP	3.68	0.00	763.99		0.81400	
MW-05	4/21/2023	39.65522583	-86.76285483	767.671544		NP	3.74	0.00	763.93		0.23000	
MW-05	5/16/2023	39.65522583	-86.76285483	767.671544		NP	4.27	0.00	763.40		0.04000	
MW-05	6/12/2023	39.65522583	-86.76285483	767.671544		NP	4.51	0.00	763.16		0.64000	
MW-05	7/3/2023	39.65522583	-86.76285483	767.671544		NP	4.02	0.00	763.65		0.73000	
MW-05	8/22/2023	39.65522583	-86.76285483	767.671544		NP	4.60	0.00	763.07		0.00000	
MW-05	11/13/2023	39.65522583	-86.76285483	767.671544		NP	4.52	0.00	763.15		0.00000	
MW-05	1/11/2024	39.65522583	-86.76285483	767.671544		NP	3.93	0.00	763.74		0.95200	
MW-05	1/29/2024	39.65522583	-86.76285483	767.671544		NP	3.74	0.00	763.93		1.13400	
MW-05	4/3/2024	39.65522583	-86.76285483	767.671544		NP	3.73	0.00	763.94		0.17750	
MW-05	4/29/1934	39.65522583	-86.76285483	767.671544		NP	4.24	0.00	763.43		0.00000	
MW-06	2/23/2023	39.65564167	-86.76276829	768.430089		NP	3.59	0.00	764.84		0.00167	
MW-06	3/3/2023	39.65564167	-86.76276829	768.430089		NP	3.02	0.00	765.41		0.07000	
MW-06	3/24/2023	39.65564167	-86.76276829	768.430089		NP	2.77	0.00	765.66		0.81400	
MW-06	4/21/2023	39.65564167	-86.76276829	768.430089		NP	3.71	0.00	764.72		0.23000	
MW-06	5/16/2023	39.65564167	-86.76276829	768.430089		NP	3.96	0.00	764.47		0.04000	
MW-06	6/12/2023	39.65564167	-86.76276829	768.430089		NP	4.35	0.00	764.08		0.64000	
MW-06	7/3/2023	39.65564167	-86.76276829	768.430089		NP	3.79	0.00	764.64		0.73000	
MW-06	8/22/2028	39.65564167	-86.76276829	768.430089		NP	4.41	0.00	764.02		0.00000	
MW-06	11/13/2023	39.65564167	-86.76276829	768.430089		NP	4.12	0.00	764.31		0.00000	
MW-06	1/11/2024	39.65564167	-86.76276829	768.430089		NP	3.61	0.00	764.82		0.95200	
MW-06	1/29/2024	39.65564167	-86.76276829	768.430089		NP	3.31	0.00	765.12		1.13400	
MW-06	4/3/2024	39.65564167	-86.76276829	768.430089		NP	3.29	0.00	765.14		0.17750	
MW-06	4/29/2024	39.65564167	-86.76276829	768.430089		NP	3.64	0.00	764.79		0.00000	
MW-07	2/23/2023	39.65518496	-86.76244559	766.827192		NP	4.32	0.00	762.51		0.00167	
MW-07	3/3/2023	39.65518496	-86.76244559	766.827192		NP	3.94	0.00	762.89		0.07000	
MW-07	3/24/2023	39.65518496	-86.76244559	766.827192		NP	3.91	0.00	762.92		0.81400	
MW-07	4/21/2023	39.65518496	-86.76244559	766.827192		NP	4.71	0.00	762.12		0.23000	
MW-07	5/16/2023	39.65518496	-86.76244559	766.827192		NP	4.50	0.00	762.33		0.04000	
MW-07	6/12/2023	39.65518496	-86.76244559	766.827192		NP	4.75	0.00	762.08		0.64000	
MW-07	7/3/2023	39.65518496	-86.76244559	766.827192		NP	4.82	0.00	762.01		0.73000	
MW-07	8/22/2023	39.65518496	-86.76244559	766.827192		NP	5.00	0.00	761.83		0.00000	

Table 2  
Monitoring Well Gauging Table  
Marathon Pipe Line - Fillmore, IN

Monitoring Well	Date	Table 2- Groundwater Gauging Data										
		Latitude	Longitude	TOC Elevation	Total Depth	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Level Elevation* (ft)	Qualifiers	Precipitation (ft)	Comments
MW-07	11/13/2023	39.65518496	-86.76244559	766.827192		NP	4.89	0.00	761.94		0.00000	
MW-07	1/11/2024	39.65518496	-86.76244559	766.827192		NP	4.65	0.00	762.18		0.95200	
MW-07	1/29/2024	39.65518496	-86.76244559	766.827192		NP	4.49	0.00	762.34		1.13400	
MW-07	4/3/2024	39.65518496	-86.76244559	766.827192		NP	4.35	0.00	762.48		0.17750	
MW-07	4/29/2024	39.65518496	-86.76244559	766.827192		NP	4.86	0.00	761.97		0.00000	
MW-08	3/3/2023	39.65507896	-86.76237786	765.067282		NP	2.99	0.00	762.08		0.07000	
MW-08	3/24/2023	39.65507896	-86.76237786	765.067282		NP	3.16	0.00	761.91		0.81400	
MW-08	4/21/2023	39.65507896	-86.76237786	765.067282		NP	3.68	0.00	761.39		0.23000	
MW-08	5/16/2023	39.65507896	-86.76237786	765.067282		NP	3.72	0.00	761.35		0.04000	
MW-08	6/12/2023	39.65507896	-86.76237786	765.067282		NP	3.86	0.00	761.21		0.64000	
MW-08	7/3/2023	39.65507896	-86.76237786	765.067282		NP	3.79	0.00	761.28		0.73000	
MW-08	8/22/2023	39.65507896	-86.76237786	765.067282		NP	3.93	0.00	761.14		0.00000	
MW-08	11/13/2023	39.65507896	-86.76237786	765.067282		NP	3.88	0.00	761.19		0.00000	
MW-08	1/11/2024	39.65507896	-86.76237786	765.067282		NP	3.55	0.00	761.52		0.95200	
MW-08	1/29/2024	39.65507896	-86.76237786	765.067282		NP	3.44	0.00	761.63		1.13400	
MW-08	4/3/2024	39.65507896	-86.76237786	765.067282		NP	3.27	0.00	761.80		0.17750	
MW-08	4/29/2024	39.65507896	-86.76237786	765.067282		NP	3.49	0.00	761.58		0.00000	
MW-09	2/23/2023	39.65536914	-86.7624312	769.013166		NP	5.06	0.00	763.95		0.00167	
MW-09	3/3/2023	39.65536914	-86.7624312	769.013166		NP	3.98	0.00	765.03		0.07000	
MW-09	3/24/2023	39.65536914	-86.7624312	769.013166		NP	4.15	0.00	764.86		0.81400	
MW-09	4/21/2023	39.65536914	-86.7624312	769.013166		NP	5.62	0.00	763.39		0.23000	
MW-09	5/16/2023	39.65536914	-86.7624312	769.013166		NP	5.98	0.00	763.03		0.04000	
MW-09	6/12/2023	39.65536914	-86.7624312	769.013166		NP	5.86	0.00	763.15		0.64000	
MW-09	7/3/2023	39.65536914	-86.7624312	769.013166		NP	5.34	0.00	763.67		0.73000	
MW-09	8/22/2023	39.65536914	-86.7624312	769.013166		NP	5.78	0.00	763.23		0.00000	
MW-09	11/13/2023	39.65536914	-86.7624312	769.013166		NP	5.84	0.00	763.17		0.00000	
MW-09	1/11/2024	39.65536914	-86.7624312	769.013166		NP	5.07	0.00	763.94		0.95200	
MW-09	1/29/2024	39.65536914	-86.7624312	769.013166		NP	4.67	0.00	764.34		1.13400	
MW-09	4/3/2024	39.65536914	-86.7624312	769.013166		NP	4.20	0.00	764.81		0.17750	
MW-09	4/29/2024	39.65536914	-86.7624312	769.013166		NP	5.62	0.00	763.39		0.00000	
MW-10	2/23/2023	39.65531731	-86.76244706	769.552674		NP	6.10	0.00	763.45		0.00167	
MW-10	3/3/2023	39.65531731	-86.76244706	769.552674		NP	5.77	0.00	763.78		0.07000	
MW-10	3/24/2023	39.65531731	-86.76244706	769.552674		NP	5.53	0.00	764.02		0.81400	
MW-10	4/21/2023	39.65531731	-86.76244706	769.552674		NP	6.42	0.00	763.13		0.23000	
MW-10	5/16/2023	39.65531731	-86.76244706	769.552674		NP	6.33	0.00	763.22		0.04000	
MW-10	6/12/2023	39.65531731	-86.76244706	769.552674		NP	6.67	0.00	762.88		0.64000	
MW-10	7/3/2023	39.65531731	-86.76244706	769.552674		NP	6.41	0.00	763.14		0.73000	
MW-10	8/22/2023	39.65531731	-86.76244706	769.552674		NP	6.77	0.00	762.78		0.00000	
MW-10	11/13/2023	39.65531731	-86.76244706	769.552674		NP	6.72	0.00	762.83		0.00000	
MW-10	1/11/2024	39.65531731	-86.76244706	769.552674		NP	6.33	0.00	763.22		0.95200	
MW-10	1/29/2024	39.65531731	-86.76244706	769.552674		NP	6.01	0.00	763.54		1.13400	
MW-10	4/3/2024	39.65531731	-86.76244706	769.552674		NP	5.84	0.00	763.71		0.17750	
MW-10	4/29/2024	39.65531731	-86.76244706	769.552674		NP	6.47	0.00	763.08		0.00000	

Table 2  
Monitoring Well Gauging Table  
Marathon Pipe Line - Fillmore, IN

Monitoring Well	Date	Table 2- Groundwater Gauging Data										
		Latitude	Longitude	TOC Elevation	Total Depth	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Level Elevation* (ft)	Qualifiers	Precipitation (ft)	Comments
MW-11	2/23/2023	39.65542658	-86.76277168	768.830936		NP	4.12	0.00	764.71		0.00167	
MW-11	3/3/2023	39.65542658	-86.76277168	768.830936		NP	3.16	0.00	765.67		0.07000	
MW-11	3/24/2023	39.65542658	-86.76277168	768.830936		NP	3.41	0.00	765.42		0.81400	
MW-11	4/21/2023	39.65542658	-86.76277168	768.830936		NP	4.39	0.00	764.44		0.23000	
MW-11	5/16/2023	39.65542658	-86.76277168	768.830936		NP	4.62	0.00	764.21		0.04000	
MW-11	6/12/2023	39.65542658	-86.76277168	768.830936		NP	4.86	0.00	763.97		0.64000	
MW-11	7/3/2023	39.65542658	-86.76277168	768.830936		NP	4.36	0.00	764.47		0.73000	
MW-11	8/22/2023	39.65542658	-86.76277168	768.830936		NP	4.92	0.00	763.91		0.00000	
MW-11	11/13/2023	39.65542658	-86.76277168	768.830936		NP	4.75	0.00	764.08		0.00000	
MW-11	1/11/2024	39.65542658	-86.76277168	768.830936		NP	4.24	0.00	764.59		0.95200	
MW-11	1/12/2024	39.65542658	-86.76277168	768.830936		NP	4.10	0.00	764.73		1.13400	
MW-11	4/3/2024	39.65542658	-86.76277168	768.830936		NP	3.86	0.00	764.97		0.17750	
MW-11	4/29/2024	39.65542658	-86.76277168	768.830936		NP	4.65	0.00	764.18		0.00000	
MW-12	2/23/2023	39.65549982	-86.76288687	768.492183		NP	3.85	0.00	764.64		0.00167	
MW-12	3/3/2023	39.65549982	-86.76288687	768.492183		NP	3.12	0.00	765.37		0.07000	
MW-12	3/24/2023	39.65549982	-86.76288687	768.492183		NP	3.36	0.00	765.13		0.81400	
MW-12	4/21/2023	39.65549982	-86.76288687	768.492183		NP	4.15	0.00	764.34		0.23000	
MW-12	5/16/2023	39.65549982	-86.76288687	768.492183		NP	4.29	0.00	764.20		0.04000	
MW-12	6/12/2023	39.65549982	-86.76288687	768.492183		NP	4.43	0.00	764.06		0.64000	
MW-12	7/3/2023	39.65549982	-86.76288687	768.492183		NP	4.24	0.00	764.25		0.73000	
MW-12	8/22/2023	39.65549982	-86.76288687	768.492183		NP	4.49	0.00	764.00		0.00000	
MW-12	11/13/2023	39.65549982	-86.76288687	768.492183		NP	4.39	0.00	764.10		0.00000	
MW-12	1/11/2024	39.65549982	-86.76288687	768.492183		NP	4.07	0.00	764.42		0.95200	
MW-12	1/29/2024	39.65549982	-86.76288687	768.492183		NP	3.90	0.00	764.59		1.13400	
MW-12	4/3/2024	39.65549982	-86.76288687	768.492183		NP	3.80	0.00	764.69		0.17750	
MW-12	4/29/2024	39.65549982	-86.76288687	768.492183		NP	4.29	0.00	764.20		0.00000	
MW-13	2/23/2023	39.65564268	-86.76255969	769.597411		NP	4.63	0.00	764.97		0.00167	
MW-13	3/3/2023	39.65564268	-86.76255969	769.597411		NP	3.62	0.00	765.98		0.07000	
MW-13	3/24/2023	39.65564268	-86.76255969	769.597411		NP	3.22	0.00	766.38		0.81400	
MW-13	4/21/2023	39.65564268	-86.76255969	769.597411		NP	5.03	0.00	764.57		0.23000	
MW-13	5/16/2023	39.65564268	-86.76255969	769.597411		NP	5.17	0.00	764.43		0.04000	
MW-13	6/12/2023	39.65564268	-86.76255969	769.597411		NP	5.66	0.00	763.94		0.64000	
MW-13	7/3/2023	39.65564268	-86.76255969	769.597411		NP	5.17	0.00	764.43		0.73000	
MW-13	8/22/2023	39.65564268	-86.76255969	769.597411		NP	5.69	0.00	763.91		0.00000	
MW-13	11/13/2023	39.65564268	-86.76255969	769.597411		NP	5.51	0.00	764.09		0.00000	
MW-13	1/11/2024	39.65564268	-86.76255969	769.597411		NP	4.63	0.00	764.97		0.95200	
MW-13	1/29/2024	39.65564268	-86.76255969	769.597411		NP	4.25	0.00	765.35		1.13400	
MW-13	4/3/2024	39.65564268	-86.76255969	769.597411		NP	3.87	0.00	765.73		0.17750	
MW-13	4/29/2024	39.65564268	-86.76255969	769.597411		NP	4.99	0.00	764.61		0.00000	
MW-14	2/23/2023	39.65556134	-86.76267976	769.905161		NP	5.22	0.00	764.69		0.00167	
MW-14	3/3/2023	39.65556134	-86.76267976	769.905161		NP	4.99	0.00	764.92		0.07000	
MW-14	3/24/2023	39.65556134	-86.76267976	769.905161		NP	4.49	0.00	765.42		0.81400	

Table 2  
Monitoring Well Gauging Table  
Marathon Pipe Line - Fillmore, IN

Monitoring Well	Date	Table 2- Groundwater Gauging Data										
		Latitude	Longitude	TOC Elevation	Total Depth	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Level Elevation* (ft)	Qualifiers	Precipitation (ft)	Comments
MW-14	4/21/2023	39.65556134	-86.76267976	769.905161		NP	5.47	0.00	764.44		0.23000	
MW-14	5/16/2023	39.65556134	-86.76267976	769.905161		NP	5.53	0.00	764.38		0.04000	
MW-14	6/12/2023	39.65556134	-86.76267976	769.905161		NP	5.81	0.00	764.10		0.64000	
MW-14	7/3/2023	39.65556134	-86.76267976	769.905161		NP	5.52	0.00	764.39		0.73000	
MW-14	8/22/2023	39.65556134	-86.76267976	769.905161		NP	5.86	0.00	764.05		0.00000	
MW-14	11/13/2023	39.65556134	-86.76267976	769.905161		NP	5.72	0.00	764.19		0.00000	
MW-14	1/11/2024	39.65556134	-86.76267976	769.905161		NP	5.30	0.00	764.61		0.95200	
MW-14	1/29/2024	39.65556134	-86.76267976	769.905161		NP	5.07	0.00	764.84		1.13400	
MW-14	4/3/2024	39.65556134	-86.76267976	769.905161		NP	4.96	0.00	764.95		0.17750	
MW-14	4/29/2024	39.65556134	-86.76267976	769.905161		NP	5.42	0.00	764.49		0.00000	
MW-15	2/23/2023	39.65556761	-86.76255272	769.768441		NP	5.57	0.00	764.20		0.00167	
MW-15	3/3/2023	39.65556761	-86.76255272	769.768441		NP	4.05	0.00	765.72		0.07000	
MW-15	3/24/2023	39.65556761	-86.76255272	769.768441		NP	4.22	0.00	765.55		0.81400	
MW-15	4/21/2023	39.65556761	-86.76255272	769.768441		NP	5.30	0.00	764.47		0.23000	
MW-15	5/16/2023	39.65556761	-86.76255272	769.768441		NP	5.35	0.00	764.42		0.04000	
MW-15	6/12/2023	39.65556761	-86.76255272	769.768441		NP	5.79	0.00	763.98		0.64000	
MW-15	7/3/2023	39.65556761	-86.76255272	769.768441		NP	5.36	0.00	764.41		0.73000	
MW-15	8/22/2023	39.65556761	-86.76255272	769.768441		NP	5.86	0.00	763.91		0.00000	
MW-15	11/13/2023	39.65556761	-86.76255272	769.768441		NP	5.67	0.00	764.10		0.00000	
MW-15	1/11/2024	39.65556761	-86.76255272	769.768441		NP	4.83	0.00	764.94		0.95200	
MW-15	1/29/2024	39.65556761	-86.76255272	769.768441		NP	4.48	0.00	765.29		1.13400	
MW-15	4/3/2024	39.65556761	-86.76255272	769.768441		NP	4.00	0.00	765.77		0.17750	
MW-15	4/29/2024	39.65556761	-86.76255272	769.768441		NP	5.30	0.00	764.47		0.00000	
MW-16	2/23/2023	39.65575731	-86.76238506	770.096316		NP	3.77	0.00	766.33		0.00167	
MW-16	3/3/2023	39.65575731	-86.76238506	770.096316		NP	2.98	0.00	767.12		0.07000	
MW-16	3/24/2023	39.65575731	-86.76238506	770.096316		NP	3.11	0.00	766.99		0.81400	
MW-16	4/21/2023	39.65575731	-86.76238506	770.096316		NP	4.54	0.00	765.56		0.23000	
MW-16	5/16/2023	39.65575731	-86.76238506	770.096316		NP	4.95	0.00	765.15		0.04000	
MW-16	6/12/2023	39.65575731	-86.76238506	770.096316		NP	6.42	0.00	763.68		0.64000	
MW-16	7/3/2023	39.65575731	-86.76238506	770.096316		NP	6.05	0.00	764.05		0.73000	
MW-16	8/22/2023	39.65575731	-86.76238506	770.096316		NP	6.29	0.00	763.81		0.00000	
MW-16	11/13/2023	39.65575731	-86.76238506	770.096316		NP	6.72	0.00	763.38		0.00000	
MW-16	1/11/2024	39.65575731	-86.76238506	770.096316		NP	3.41	0.00	766.69		0.95200	
MW-16	1/29/2024	39.65575731	-86.76238506	770.096316		NP	3.60	0.00	766.50		1.13400	
MW-16	4/3/2024	39.65575731	-86.76238506	770.096316		NP	3.08	0.00	767.02		0.17750	
MW-16	4/29/2024	39.65575731	-86.76238506	770.096316		NP	3.69	0.00	766.41		0.00000	
MW-17	2/23/2023	39.65539093	-86.76231459	768.769791		NP	4.26	0.00	764.51		0.00167	
MW-17	3/3/2023	39.65539093	-86.76231459	768.769791		NP	2.84	0.00	765.93		0.07000	
MW-17	3/24/2023	39.65539093	-86.76231459	768.769791		NP	3.06	0.00	765.71		0.81400	
MW-17	4/21/2023	39.65539093	-86.76231459	768.769791		NP	4.61	0.00	764.16		0.23000	
MW-17	5/16/2023	39.65539093	-86.76231459	768.769791		NP	4.87	0.00	763.90		0.04000	
MW-17	6/12/2023	39.65539093	-86.76231459	768.769791		NP	5.35	0.00	763.42		0.64000	
MW-17	7/3/2023	39.65539093	-86.76231459	768.769791		NP	4.69	0.00	764.08		0.73000	



Table 2  
Monitoring Well Gauging Table  
Marathon Pipe Line - Fillmore, IN

Monitoring Well	Date	Table 2- Groundwater Gauging Data										
		Latitude	Longitude	TOC Elevation	Total Depth	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Level Elevation* (ft)	Qualifiers	Precipitation (ft)	Comments
MW-17	8/22/2023	39.65539093	-86.76231459	768.769791		NP	5.45	0.00	763.32		0.00000	
MW-17	11/13/2023	39.65539093	-86.76231459	768.769791		NP	5.50	0.00	763.27		0.00000	
MW-17	1/11/2024	39.65539093	-86.76231459	768.769791		NP	4.38	0.00	764.39		0.95200	
MW-17	1/29/2024	39.65539093	-86.76231459	768.769791		NP	4.01	0.00	764.76		1.13400	
MW-17	4/3/2024	39.65539093	-86.76231459	768.769791		NP	3.86	0.00	764.91		0.17750	
MW-17	4/29/2024	39.65539093	-86.76231459	768.769791		NP	5.20	0.00	763.57		0.00000	
MW-18	2/23/2023	39.65539093	-86.76231459	768.769791		NP	8.67	0.00	760.10		0.00167	
MW-18	3/3/2023	39.65526699	-86.76261204	770.221718		NP	8.54	0.00	761.68		0.07000	
MW-18	3/24/2023	39.65526699	-86.76261204	770.221718		NP	8.26	0.00	761.96		0.81400	
MW-18	4/21/2023	39.65526699	-86.76261204	770.221718		NP	8.65	0.00	761.57		0.23000	
MW-18	5/16/2023	39.65526699	-86.76261204	770.221718		NP	8.55	0.00	761.67		0.04000	
MW-18	6/12/2023	39.65526699	-86.76261204	770.221718		NP	8.68	0.00	761.54		0.64000	
MW-18	7/3/2023	39.65526699	-86.76261204	770.221718		NP	8.47	0.00	761.75		0.73000	
MW-18	8/22/2023	39.65526699	-86.76261204	770.221718		NP	8.79	0.00	761.43		0.00000	
MW-18	11/13/2023	39.65526699	-86.76261204	770.221718		NP	8.74	0.00	761.48		0.00000	
MW-18	1/11/2024	39.65526699	-86.76261204	770.221718		NP	8.30	0.00	761.92		0.95200	
MW-18	1/29/2024	39.65526699	-86.76261204	770.221718		NP	8.19	0.00	762.03		1.13400	
MW-18	4/3/2024	39.65526699	-86.76261204	770.221718		NP	7.91	0.00	762.31		0.17750	
MW-18	4/29/2024	39.65526699	-86.76261204	770.221718		NP	8.35	0.00	761.87		0.00000	
MW-19	2/23/2023	39.65537493	-86.76297291	768.720304		NP	4.01	0.00	764.71		0.00167	
MW-19	3/3/2023	39.65537493	-86.76297291	768.720304		NP	3.28	0.00	765.44		0.07000	
MW-19	3/24/2023	39.65537493	-86.76297291	768.720304		NP	3.17	0.00	765.55		0.81400	
MW-19	4/21/2023	39.65537493	-86.76297291	768.720304		NP	4.34	0.00	764.38		0.23000	
MW-19	5/16/2023	39.65537493	-86.76297291	768.720304		NP	4.58	0.00	764.14		0.04000	
MW-19	6/12/2023	39.65537493	-86.76297291	768.720304		NP	4.89	0.00	763.83		0.64000	
MW-19	7/3/2023	39.65537493	-86.76297291	768.720304		NP	4.48	0.00	764.24		0.73000	
MW-19	8/22/2023	39.65537493	-86.76297291	768.720304		NP	5.00	0.00	763.72		0.00000	
MW-19	11/13/2023	39.65537493	-86.76297291	768.720304		NP	4.82	0.00	763.90		0.00000	
MW-19	1/11/2024	39.65537493	-86.76297291	768.720304		NP	4.21	0.00	764.51		0.95200	
MW-19	1/29/2024	39.65537493	-86.76297291	768.720304		NP	3.88	0.00	764.84		1.13400	
MW-19	4/3/2024	39.65537493	-86.76297291	768.720304		NP	3.49	0.00	765.23		0.17750	
MW-19	4/29/2024	39.65537493	-86.76297291	768.720304		NP	4.61	0.00	764.11		0.00000	

**Notes:**

TOC - Top of Casing

ft - feet

NP - No Product

NM - Not Measured / Unable to Measure

LNAPL - Light Non-Aqueous Phase Liquid

\* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)

gal - Gallon

-- No Information Available

NG - Not Gauged



















**Notes:**

Groundwater analytical results have been compared to the IDEM 2024 Published Level Table for Risk-Based Closure Guide (R2, Waste #0046-R2)

Results in bold indicate exceedances.

ug/kg = micrograms/kilograms

NGV = No given value

< = Not detected at or above indicated laboratory reporting limit

-- No information

J = Laboratory estimated concentration above adjusted method detection limit and below adjusted reporting limit

N3: Accreditation is not offered by the relevant laboratory accrediting body for this parameter.

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

HS: Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

C0: Result confirmed by second analysis.

M5: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

J = Laboratory estimated concentration above adjusted method detection limit and below adjusted reporting limit



TABLE 4  
SOIL ANALYTICAL DATA  
MPL Putnam  
Fillmore, IN

Sample ID	Date	Notes	1,3-Dichlorobenzene MG/KG	1,3-Dichloropropane MG/KG	1,4-Dichlorobenzene MG/KG	1-Methylnaphthalene MG/KG	2,2-Dichloropropane MG/KG	2-Butanone (MEK) MG/KG	2-Chlorotoluene MG/KG	2-Hexanone MG/KG	2-Methylnaphthalene MG/KG	4-Chlorotoluene MG/KG	Acetone MG/KG	Acrolein MG/KG	Acrylonitrile MG/KG	Benzene MG/KG	Bromobenzene MG/KG	Bromochloromethane MG/KG
EPA REG 4 TBL 2A SE FRESHW ESV 2024			NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	0.0009	0.03	NGV	NGV	NGV
EPA REG 4 TBL 2A SE FRESHW RSV 2024			NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	0.0034	0.151	NGV	NGV	NGV
EPA REG 4 TBL 2B SE FRESHW ESV 2024			0.089	NGV	0.03	0.141	NGV	7.604	NGV	0.045	0.0202	NGV	0.065	NGV	NGV	0.01	NGV	NGV
EPA REG 4 TBL 2B SE FRESHW RSV 2024			0.468	NGV	0.468	NGV	NGV	22.707	NGV	7.598	NGV	NGV	38.133	NGV	NGV	2.185	NGV	NGV
SS-01-C	8/24/2023		< 0.0035	< 0.0035	< 0.0035	< 0.0070	< 0.0035	< 0.018	< 0.0035	< 0.070	< 0.0070	< 0.0035	< 0.070	< 0.070	< 0.070	< 0.0035	< 0.0035	< 0.0035
SS-01-LB	8/24/2023		< 0.0047	< 0.0047	< 0.0047	< 0.0095	< 0.0047	< 0.024	< 0.0047	< 0.095	< 0.0095	< 0.0047	< 0.095	< 0.095	< 0.095	< 0.0047	< 0.0047	< 0.0047
SS-01-LB	2/1/2024		< 0.0059	< 0.0059	< 0.0059	< 0.012	< 0.0059	< 0.029	< 0.0059	< 0.12	< 0.012	< 0.0059	< 0.12	< 0.12	< 0.12	< 0.0059	< 0.0059	< 0.0059
SS-01-LB	5/1/2024		< 0.0072	< 0.0072	< 0.0072	< 0.014	< 0.0072	< 0.036	< 0.0072	< 0.14	< 0.014	< 0.0072	< 0.14	< 0.14	< 0.14	< 0.0072	< 0.0072	< 0.0072
SS-01-RB	8/24/2023		< 0.0053	< 0.0053	< 0.0053	< 0.011	< 0.0053	< 0.026	< 0.0053	< 0.11	< 0.011	< 0.0053	< 0.11	< 0.11	< 0.11	< 0.0053	< 0.0053	< 0.0053
SS-01-RB	2/1/2024		< 0.0088	< 0.0088	< 0.0088	< 0.018	< 0.0088	< 0.044	< 0.0088	< 0.18	< 0.018	< 0.0088	< 0.18	< 0.18	< 0.18	< 0.0088	< 0.0088	< 0.0088
SS-01-RB	5/1/2024		< 0.0064	< 0.0064	< 0.0064	< 0.013	< 0.0064	< 0.032	< 0.0064	< 0.13	< 0.013	< 0.0064	< 0.13	< 0.13	< 0.13	< 0.0064	< 0.0064	< 0.0064
SS-02-C	8/24/2023		< 0.0047	< 0.0047	< 0.0047	< 0.0094	< 0.0047	< 0.024	< 0.0047	< 0.094	< 0.0094	< 0.0047	< 0.094	< 0.094	< 0.094	< 0.0047	< 0.0047	< 0.0047
SS-02-LB	8/24/2023		< 0.0056	< 0.0056	< 0.0056	< 0.011	< 0.0056	< 0.028	< 0.0056	< 0.11	< 0.011	< 0.0056	< 0.11	< 0.11	< 0.11	< 0.0056	< 0.0056	< 0.0056
SS-02-LB	2/1/2024	Duplicate	< 0.0061	< 0.0061	< 0.0061	< 0.012	< 0.0061	< 0.031	< 0.0061	< 0.12	< 0.012	< 0.0061	< 0.12	< 0.12	< 0.12	< 0.0061	< 0.0061	< 0.0061
SS-02-LB	2/1/2024		< 0.0062	< 0.0062	< 0.0062	< 0.012	< 0.0062	< 0.031	< 0.0062	< 0.12	< 0.012	< 0.0062	< 0.12	< 0.12	< 0.12	< 0.0062	< 0.0062	< 0.0062
SS-02-LB	5/1/2024		< 0.0060	< 0.0060	< 0.0060	< 0.012	< 0.0060	< 0.030	< 0.0060	< 0.12	< 0.012	< 0.0060	< 0.12	< 0.12	< 0.12	< 0.0060	< 0.0060	< 0.0060
SS-02-RB	8/24/2023		< 4.3	< 4.3	< 4.3	< 8.5	< 4.3	< 21.3	< 4.3	< 85.3	< 8.5	< 4.3	< 85.3	< 85.3	< 85.3	< 4.3	< 4.3	< 4.3
SS-02-RB	2/1/2024	Duplicate	< 0.0081	< 0.0081	< 0.0081	< 0.016	< 0.0081	< 0.040	< 0.0081	< 0.16	< 0.016	< 0.0081	< 0.16	< 0.16	< 0.16	0.028	< 0.0081	< 0.0081
SS-02-RB	2/1/2024		< 0.0078	< 0.0078	< 0.0078	< 0.016	< 0.0078	< 0.039	< 0.0078	< 0.16	< 0.016	< 0.0078	< 0.16	< 0.16	< 0.16	0.0097	< 0.0078	< 0.0078
SS-02-RB	5/1/2024	Duplicate	< 0.40	< 0.40	< 0.40	< 0.81	< 0.40	< 2.0	< 0.40	< 8.1	< 0.81	< 0.40	< 8.1	< 8.1	< 8.1	1	< 0.40	< 0.40
SS-02-RB	5/1/2024		< 0.39	< 0.39	< 0.39	< 0.79	< 0.39	< 2.0	< 0.39	< 7.9	< 0.79	< 0.39	< 7.9	< 7.9	< 7.9	0.95	< 0.39	< 0.39
SS-03-C	8/24/2023		< 0.0043	< 0.0043	< 0.0043	< 0.0085	< 0.0043	< 0.021	< 0.0043	< 0.085	< 0.0085	< 0.0043	< 0.085	< 0.085	< 0.085	< 0.0043	< 0.0043	< 0.0043
SS-03-LB	8/24/2023		< 0.0044	< 0.0044	< 0.0044	< 0.0088	< 0.0044	< 0.022	< 0.0044	< 0.088	< 0.0088	< 0.0044	< 0.088	< 0.088	< 0.088	< 0.0044	< 0.0044	< 0.0044
SS-03-LB	2/1/2024		< 0.0042	< 0.0042	< 0.0042	< 0.0083	< 0.0042	< 0.021	< 0.0042	< 0.083	< 0.0083	< 0.0042	< 0.083	< 0.083	< 0.083	< 0.0042	< 0.0042	< 0.0042
SS-03-LB	5/1/2024		< 0.0073	< 0.0073	< 0.0073	< 0.015	< 0.0073	< 0.036	< 0.0073	< 0.15	< 0.015	< 0.0073	< 0.15	< 0.15	< 0.15	< 0.0073	< 0.0073	< 0.0073
SS-03-RB	8/24/2023		< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.025	< 0.0050	< 0.10	< 0.010	< 0.0050	< 0.10	< 0.10	< 0.10	< 0.0050	< 0.0050	< 0.0050
SS-03-RB	2/1/2024		< 0.0049	< 0.0049	< 0.0049	< 0.0099	< 0.0049	< 0.025	< 0.0049	< 0.099	< 0.0099	< 0.0049	< 0.099	< 0.099	< 0.099	< 0.0049	< 0.0049	< 0.0049
SS-03-RB	5/1/2024		< 0.0055	< 0.0055	< 0.0055	< 0.011	< 0.0055	< 0.027	< 0.0055	< 0.11	< 0.011	< 0.0055	< 0.11	< 0.11	< 0.11	< 0.0055	< 0.0055	< 0.0055
SS-04-LB	2/1/2024		< 0.0071	< 0.0071	< 0.0071	< 0.014	< 0.0071	< 0.036	< 0.0071	< 0.14	< 0.014	< 0.0071	< 0.14	< 0.14	< 0.14	< 0.0071	< 0.0071	< 0.0071
SS-04-LB	5/1/2024		< 0.0068	< 0.0068	< 0.0068	< 0.014	< 0.0068	< 0.034	< 0.0068	< 0.14	< 0.014	< 0.0068	< 0.14	< 0.14	< 0.14	< 0.0068	< 0.0068	< 0.0068
SS-04-RB	2/1/2024		< 0.0044	< 0.0044	< 0.0044	< 0.0089	< 0.0044	< 0.022	< 0.0044	< 0.089	< 0.0089	< 0.0044	< 0.089	< 0.089	< 0.089	< 0.0044	< 0.0044	< 0.0044
SS-04-RB	5/1/2024		< 0.0076	< 0.0076	< 0.0076	< 0.015	< 0.0076	< 0.038	< 0.0076	< 0.15	< 0.015	< 0.0076	< 0.15	< 0.15	< 0.15	< 0.0076	< 0.0076	< 0.0076

TABLE 4  
SOIL ANALYTICAL DATA  
MPL Putnam  
Fillmore, IN

Sample ID	Date	Notes	Bromodichloromethane MG/KG	Bromoform MG/KG	Bromomethane MG/KG	Carbon disulfide MG/KG	Carbon tetrachloride MG/KG	Chlorobenzene MG/KG	Chloroethane MG/KG	Chloroform MG/KG	Chloromethane MG/KG	cis-1,2-Dichloroethene MG/KG	cis-1,3-Dichloropropene MG/KG	Dibromochloromethane MG/KG	Dibromomethane MG/KG	Dichlorodifluoromethane MG/KG	Ethyl methacrylate MG/KG	Ethylbenzene MG/KG
EPA REG 4 TBL 2A SE FRESHW ESV 2024			0.21	0.142	0.0065	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	0.198	NGV	NGV	NGV	NGV
EPA REG 4 TBL 2A SE FRESHW RSV 2024			NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV
EPA REG 4 TBL 2B SE FRESHW ESV 2024			NGV	NGV	NGV	0.0078	0.057	0.03	NGV	0.087	NGV	0.432	NGV	NGV	NGV	NGV	NGV	0.29
EPA REG 4 TBL 2B SE FRESHW RSV 2024			NGV	NGV	NGV	1.58	0.706	0.939	NGV	3.352	NGV	1.135	NGV	NGV	NGV	NGV	NGV	1.467
SS-01-C	8/24/2023		< 0.0035	< 0.0035	< 0.0035	< 0.0070	< 0.0035	< 0.0035	< 0.0035	< 0.0035	< 0.0035	< 0.0035	< 0.0035	< 0.0035	< 0.0035	< 0.0035	< 0.070	< 0.0035
SS-01-LB	8/24/2023		< 0.0047	< 0.0047	< 0.0047	< 0.0095	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.095	< 0.0047
SS-01-LB	2/1/2024		< 0.0059	< 0.0059	< 0.0059	< 0.012	< 0.0059	< 0.0059	< 0.0059	< 0.0059	< 0.0059	< 0.0059	< 0.0059	< 0.0059	< 0.0059	< 0.0059	< 0.12	< 0.0059
SS-01-LB	5/1/2024		< 0.0072	< 0.0072	< 0.0072	< 0.014	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.14	< 0.0072
SS-01-RB	8/24/2023		< 0.0053	< 0.0053	< 0.0053	< 0.011	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.11	< 0.0053
SS-01-RB	2/1/2024		< 0.0088	< 0.0088	< 0.0088	< 0.018	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.18	< 0.0088
SS-01-RB	5/1/2024		< 0.0064	< 0.0064	< 0.0064	< 0.013	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.13	< 0.0064
SS-02-C	8/24/2023		< 0.0047	< 0.0047	< 0.0047	< 0.0094	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.094	< 0.0047
SS-02-LB	8/24/2023		< 0.0056	< 0.0056	< 0.0056	< 0.011	< 0.0056	< 0.0056	< 0.0056	< 0.0056	< 0.0056	< 0.0056	< 0.0056	< 0.0056	< 0.0056	< 0.0056	< 0.11	< 0.0056
SS-02-LB	2/1/2024	Duplicate	< 0.0061	< 0.0061	< 0.0061	< 0.012	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.12	< 0.0061
SS-02-LB	2/1/2024		< 0.0062	< 0.0062	< 0.0062	< 0.012	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.12	< 0.0062
SS-02-LB	5/1/2024		< 0.0060	< 0.0060	< 0.0060	< 0.012	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.12	< 0.0060
SS-02-RB	8/24/2023		< 4.3	< 4.3	< 4.3	< 8.5	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 85.3	< 4.3
SS-02-RB	2/1/2024	Duplicate	< 0.0081	< 0.0081	< 0.0081	< 0.016	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.16	< 0.0081
SS-02-RB	2/1/2024		< 0.0078	< 0.0078	< 0.0078	< 0.016	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.16	< 0.0078
SS-02-RB	5/1/2024	Duplicate	< 0.40	< 0.40	< 0.40	< 0.81	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 8.1	< 0.40
SS-02-RB	5/1/2024		< 0.39	< 0.39	< 0.39	< 0.79	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 7.9	< 0.39
SS-03-C	8/24/2023		< 0.0043	< 0.0043	< 0.0043	< 0.0085	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.085	< 0.0043
SS-03-LB	8/24/2023		< 0.0044	< 0.0044	< 0.0044	< 0.0088	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.088	< 0.0044
SS-03-LB	2/1/2024		< 0.0042	< 0.0042	< 0.0042	< 0.0083	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.083	< 0.0042
SS-03-LB	5/1/2024		< 0.0073	< 0.0073	< 0.0073	< 0.015	< 0.0073	< 0.0073	< 0.0073	< 0.0073	< 0.0073	< 0.0073	< 0.0073	< 0.0073	< 0.0073	< 0.0073	< 0.15	< 0.0073
SS-03-RB	8/24/2023		< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.10	< 0.0050
SS-03-RB	2/1/2024		< 0.0049	< 0.0049	< 0.0049	< 0.0099	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.099	< 0.0049
SS-03-RB	5/1/2024		< 0.0055	< 0.0055	< 0.0055	< 0.011	< 0.0055	< 0.0055	< 0.0055	< 0.0055	< 0.0055	< 0.0055	< 0.0055	< 0.0055	< 0.0055	< 0.0055	< 0.11	< 0.0055
SS-04-LB	2/1/2024		< 0.0071	< 0.0071	< 0.0071	< 0.014	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.14	< 0.0071
SS-04-LB	5/1/2024		< 0.0068	< 0.0068	< 0.0068	< 0.014	< 0.0068	< 0.0068	< 0.0068	< 0.0068	< 0.0068	< 0.0068	< 0.0068	< 0.0068	< 0.0068	< 0.0068	< 0.14	< 0.0068
SS-04-RB	2/1/2024		< 0.0044	< 0.0044	< 0.0044	< 0.0089	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.089	< 0.0044
SS-04-RB	5/1/2024		< 0.0076	< 0.0076	< 0.0076	< 0.015	< 0.0076	< 0.0076	< 0.0076	< 0.0076	< 0.0076	< 0.0076	< 0.0076	< 0.0076	< 0.0076	< 0.0076	< 0.15	< 0.0076

TABLE 4  
SOIL ANALYTICAL DATA  
MPL Putnam  
Fillmore, IN

Sample ID	Date	Notes	Heptane MG/KG	Hexachlorobutadiene MG/KG	Hexane MG/KG	Iodomethane MG/KG	Isopropylbenzene MG/KG	Methyl Isobutyl Ketone MG/KG	Methylene chloride MG/KG	Methyl-tertiary-butyl ether MG/KG	Naphthalene MG/KG	n-Butylbenzene MG/KG	Nonane UG/KG	n-Propylbenzene MG/KG	p-Isopropyltoluene MG/KG	sec-Butylbenzene MG/KG	Styrene MG/KG	tert-Butylbenzene MG/KG
EPA REG 4 TBL 2A SE FRESHW ESV 2024			NGV	NGV	0.00094	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV
EPA REG 4 TBL 2A SE FRESHW RSV 2024			NGV	NGV	0.186	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV
EPA REG 4 TBL 2B SE FRESHW ESV 2024			NGV	NGV	NGV	NGV	0.035	0.073	0.018	0.304	0.176	NGV	NGV	NGV	0.184	NGV	0.126	NGV
EPA REG 4 TBL 2B SE FRESHW RSV 2024			NGV	NGV	NGV	NGV	0.713	8.165	2.404	4.433	NGV	NGV	NGV	NGV	0.242	NGV	1.621	NGV
SS-01-C	8/24/2023		<0.0035	< 0.0035	< 0.0035	< 0.070	< 0.0035	< 0.018	< 0.014	< 0.0035	< 0.0035	< 0.0035	< 1.8	< 0.0035	< 0.0035	< 0.0035	< 0.0035	< 0.0035
SS-01-LB	8/24/2023		<0.0040	< 0.0047	< 0.0047	< 0.095	< 0.0047	< 0.024	< 0.019	< 0.0047	< 0.0047	< 0.0047	< 1.9	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047
SS-01-LB	2/1/2024		<0052	< 0.0059	< 0.0059	< 0.12	< 0.0059	< 0.029	< 0.024	< 0.0059	< 0.0059	< 0.0059	< 1.8 N3	< 0.0059	< 0.0059	< 0.0059	< 0.0059	< 0.0059
SS-01-LB	5/1/2024		<0.0039	< 0.0072	< 0.0072	< 0.14 L1	< 0.0072	< 0.036	< 0.029	< 0.0072	< 0.0072	< 0.0072	< 1.2 N3	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072
SS-01-RB	8/24/2023		<0.0036	< 0.0053	< 0.0053	< 0.11	< 0.0053	< 0.026	< 0.021	< 0.0053	< 0.0053	< 0.0053	< 2.2	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053
SS-01-RB	2/1/2024		<0.0085	< 0.0088	< 0.0088	< 0.18	< 0.0088	< 0.044	< 0.035	< 0.0088	< 0.0088	< 0.0088	< 3.5 N3	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088
SS-01-RB	5/1/2024		<0.006	< 0.0064	< 0.0064	< 0.13 L1	< 0.0064	< 0.032	< 0.026	< 0.0064	< 0.0064	< 0.0064	< 2.1 N3	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.0064
SS-02-C	8/24/2023		0.0051	< 0.0047	0.15	< 0.094	< 0.0047	< 0.024	< 0.019	< 0.0047	< 0.0047	< 0.0047	< 2.0	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047
SS-02-LB	8/24/2023		<0.0039	< 0.0056	< 0.0056	< 0.11	< 0.0056	< 0.028	< 0.022	< 0.0056	< 0.0056	< 0.0056	6.9	< 0.0056	< 0.0056	< 0.0056	< 0.0056	< 0.0056
SS-02-LB	2/1/2024	Duplicate	<0.0045	< 0.0061	< 0.0061	< 0.12	< 0.0061	< 0.031	< 0.024	< 0.0061	< 0.0061	< 0.0061	< 1.5 N3	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061
SS-02-LB	2/1/2024		<0.0046	< 0.0062	< 0.0062	< 0.12	< 0.0062	< 0.031	< 0.025	< 0.0062	< 0.0062	< 0.0062	< 1.7 N3	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062
SS-02-LB	5/1/2024		<0.0060	< 0.0060	< 0.0060	< 0.12 L1	< 0.0060	< 0.030	< 0.024	< 0.0060	< 0.0060	< 0.0060	< 2.3 N3	< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.0060
SS-02-RB	8/24/2023		--	< 4.3	167	< 85.3	< 4.3	< 21.3	< 17.1	< 4.3	< 4.3	< 4.3	12,100	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3
SS-02-RB	2/1/2024	Duplicate	0.582 E	< 0.0081	7.2	< 0.16	< 0.0081	< 0.040	< 0.032	< 0.0081	< 0.0081	< 0.0081	1310 N3	< 0.0081	0.015	< 0.0081	< 0.0081	< 0.0081
SS-02-RB	2/1/2024		--	< 0.0078	16	< 0.16	< 0.0078	< 0.039	< 0.031	< 0.0078	< 0.0078	< 0.0078	1620 N3	< 0.0078	< 0.0078	< 0.0078	< 0.0078	< 0.0078
SS-02-RB	5/1/2024	Duplicate	--	< 0.40	103	< 8.1	< 0.40	< 2.0	< 1.6	< 0.40	< 0.40	< 0.40	6090 N3	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
SS-02-RB	5/1/2024		--	< 0.39	63.6	< 7.9 L1	< 0.39	< 2.0	< 1.6	< 0.39	< 0.39	< 0.39	8970 N3	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
SS-03-C	8/24/2023		0.0046	< 0.0043	5.2	< 0.085	< 0.0043	< 0.021	< 0.017	< 0.0043	< 0.0043	< 0.0043	< 1.7	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0043
SS-03-LB	8/24/2023		0.0186	< 0.0044	0.1	< 0.088	< 0.0044	< 0.022	< 0.018	< 0.0044	< 0.0044	< 0.0044	< 2.1	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044
SS-03-LB	2/1/2024		<0.0037	< 0.0042	< 0.0042	< 0.083	< 0.0042	< 0.021	< 0.017	< 0.0042	< 0.0042	< 0.0042	< 1.2 N3	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042
SS-03-LB	5/1/2024		<0.0045	< 0.0073	< 0.0073	< 0.15	< 0.0073	< 0.036	< 0.029	< 0.0073	< 0.0073	< 0.0073	< 2.2 N3	< 0.0073	< 0.0073	< 0.0073	< 0.0073	< 0.0073
SS-03-RB	8/24/2023		<0.0040	< 0.0050	< 0.0050	< 0.10	< 0.0050	< 0.025	< 0.020	< 0.0050	< 0.0050	< 0.0050	< 2.1	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
SS-03-RB	2/1/2024		0.017	< 0.0049	0.12	< 0.099	< 0.0049	< 0.025	< 0.020	< 0.0049	< 0.0049	< 0.0049	< 1.3 N3	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049
SS-03-RB	5/1/2024		<0.0059	< 0.0055	0.007	< 0.11	< 0.0055	< 0.027	< 0.022	< 0.0055	< 0.0055	< 0.0055	< 1.6 N3	< 0.0055	< 0.0055	< 0.0055	< 0.0055	< 0.0055
SS-04-LB	2/1/2024		<0.0031	< 0.0071	< 0.0071	< 0.14	< 0.0071	< 0.036	< 0.028	< 0.0071	< 0.0071	< 0.0071	< 1.6 N3	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.0071
SS-04-LB	5/1/2024		<0.0047	< 0.0068	< 0.0068	< 0.14	< 0.0068	< 0.034	< 0.027	< 0.0068	< 0.0068	< 0.0068	< 1.7 N3	< 0.0068	< 0.0068	< 0.0068	< 0.0068	< 0.0068
SS-04-RB	2/1/2024		<0.0050	< 0.0044	< 0.0044	< 0.089	< 0.0044	< 0.022	< 0.018	< 0.0044	< 0.0044	< 0.0044	< 1.6 N3	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0044
SS-04-RB	5/1/2024		< 0.0062	< 0.0076	< 0.0076	< 0.15	< 0.0076	< 0.038	< 0.030	< 0.0076	< 0.0076	< 0.0076	< 1.9 N3	< 0.0076	< 0.0076	< 0.0076	< 0.0076	< 0.0076

TABLE 4  
SOIL ANALYTICAL DATA  
MPL Putnam  
Fillmore, IN

Sample ID	Date	Notes	Tetrachloroethene MG/KG	Toluene MG/KG	trans-1,2-Dichloroethene MG/KG	trans-1,3- Dichloropropene MG/KG	trans-1,4-Dichloro-2- butene MG/KG	Trichloroethene MG/KG	Trichlorofluoromethane MG/KG	Vinyl Acetate MG/KG	Vinyl chloride MG/KG	Xylene (Total) MG/KG
EPA REG 4 TBL 2A SE FRESHW ESV 2024			NGV	NGV	NGV	NGV	NGV	NGV	NGV	0.0057	NGV	NGV
EPA REG 4 TBL 2A SE FRESHW RSV 2024			NGV	NGV	NGV	NGV	NGV	NGV	NGV	2.23	NGV	NGV
EPA REG 4 TBL 2B SE FRESHW ESV 2024			0.002	0.01	0.389	NGV	NGV	0.078	NGV	NGV	0.482	0.13
EPA REG 4 TBL 2B SE FRESHW RSV 2024			0.415	2.074	1.135	NGV	NGV	0.692	NGV	NGV	1.178	1.074
SS-01-C	8/24/2023		< 0.0035	< 0.0035	< 0.0035	< 0.0035	< 0.070	< 0.0035	< 0.0035	< 0.070	< 0.0035	< 0.0070
SS-01-LB	8/24/2023		< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.095	< 0.0047	< 0.0047	< 0.095	< 0.0047	< 0.0095
SS-01-LB	2/1/2024		< 0.0059	< 0.0059	< 0.0059	< 0.0059	< 0.12	< 0.0059	< 0.0059	< 0.12	< 0.0059	< 0.012
SS-01-LB	5/1/2024		< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.14	< 0.0072	< 0.0072	< 0.14	< 0.0072	< 0.014
SS-01-RB	8/24/2023		< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.11	< 0.0053	< 0.0053	< 0.11	< 0.0053	< 0.011
SS-01-RB	2/1/2024		<b>0.025 C8 P2</b>	< 0.0088	< 0.0088	< 0.0088	< 0.18	< 0.0088	< 0.0088	< 0.18	< 0.0088	< 0.018
SS-01-RB	5/1/2024		< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.13	< 0.0064	< 0.0064	< 0.13	< 0.0064	< 0.013
SS-02-C	8/24/2023		< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.094	< 0.0047	< 0.0047	< 0.094	< 0.0047	< 0.0094
SS-02-LB	8/24/2023		< 0.0056	< 0.0056	< 0.0056	< 0.0056	< 0.11	< 0.0056	< 0.0056	< 0.11	< 0.0056	< 0.011
SS-02-LB	2/1/2024	Duplicate	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.12	< 0.0061	< 0.0061	< 0.12	< 0.0061	< 0.012
SS-02-LB	2/1/2024		< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.12	< 0.0062	< 0.0062	< 0.12	< 0.0062	< 0.012
SS-02-LB	5/1/2024		< 0.0060	< 0.0060	< 0.0060	< 0.0060	< 0.12	< 0.0060	< 0.0060	< 0.12	< 0.0060	< 0.012
SS-02-RB	8/24/2023		< 4.3	<b>5.4</b>	< 4.3	< 4.3	< 85.3	< 4.3	< 4.3	< 85.3	< 4.3	< 8.5
SS-02-RB	2/1/2024	Duplicate	< 0.0081	<b>0.046</b>	< 0.0081	< 0.0081	< 0.16	< 0.0081	< 0.0081	< 0.16	< 0.0081	<b>0.28</b>
SS-02-RB	2/1/2024		< 0.0078	0.01	< 0.0078	< 0.0078	< 0.16	< 0.0078	< 0.0078	< 0.16	< 0.0078	0.091
SS-02-RB	5/1/2024	Duplicate	< 0.40	<b>1.3</b>	< 0.40	< 0.40	< 8.1	< 0.40	< 0.40	< 8.1	< 0.40	<b>3.4</b>
SS-02-RB	5/1/2024		< 0.39	<b>0.96</b>	< 0.39	< 0.39	< 7.9	< 0.39	< 0.39	< 7.9	< 0.39	<b>2</b>
SS-03-C	8/24/2023		< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.085	< 0.0043	< 0.0043	< 0.085	< 0.0043	< 0.0085
SS-03-LB	8/24/2023		< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.088	< 0.0044	< 0.0044	< 0.088	< 0.0044	0.0095
SS-03-LB	2/1/2024		< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.083	< 0.0042	< 0.0042	< 0.083	< 0.0042	< 0.0083
SS-03-LB	5/1/2024		< 0.0073	< 0.0073	< 0.0073	< 0.0073	< 0.15	< 0.0073	< 0.0073	< 0.15	< 0.0073	< 0.015
SS-03-RB	8/24/2023		< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.10	< 0.0050	< 0.0050	< 0.10	< 0.0050	< 0.010
SS-03-RB	2/1/2024		< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.099	< 0.0049	< 0.0049	< 0.099	< 0.0049	< 0.0099
SS-03-RB	5/1/2024		< 0.0055	< 0.0055	< 0.0055	< 0.0055	< 0.11	< 0.0055	< 0.0055	< 0.11	< 0.0055	< 0.011
SS-04-LB	2/1/2024		< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.14	< 0.0071	< 0.0071	< 0.14	< 0.0071	< 0.014
SS-04-LB	5/1/2024		< 0.0068	< 0.0068	< 0.0068	< 0.0068	< 0.14	< 0.0068	< 0.0068	< 0.14	< 0.0068	< 0.014
SS-04-RB	2/1/2024		< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.089	< 0.0044	< 0.0044	< 0.089	< 0.0044	< 0.0089
SS-04-RB	5/1/2024		< 0.0076	< 0.0076	< 0.0076	< 0.0076	< 0.15	< 0.0076	< 0.0076	< 0.15	< 0.0076	< 0.015

**Notes:**

Table 2a and Table 2b are derived from the USEPA region 4's sediment screening values document and was used to compare against the sediment analytical results.

MG/KG = milligrams/killograms

ESV = Ecological Screening Values

RSV = Refinement Screening Value

< = Not detected at or above indicated laboratory reporting limit

J: Laboratory estimated concentration above adjusted

N3: Accreditation is not offered by the relevant laboratory accrediting body for this parameter



TABLE 5  
SURFACE WATER ANALYTICAL DATA  
MPL Putnam  
Fillmore, IN

Sample ID	Date	Notes	1,1,1,2-Tetrachloroethane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1,2,2-Tetrachloroethane (ug/L)	1,1,2-Trichloroethane (ug/L)	1,1-Dichloroethane (ug/L)	1,1-Dichloroethylene (ug/L)	1,1-Dichloropropene (ug/L)	1,2,3-Trichlorobenzene (ug/L)	1,2,3-Trichloropropane (ug/L)	1,2,4-Trichlorobenzene (ug/L)	1,2,4-Trimethylbenzene (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichlorobenzene (ug/L)
EPA REG 4 TBL 1A SW FRESHW CHRONIC (ESV)			85	76	200	730	410	130	NGV	8	NGV	130	15	NGV	23
EPA REG 4 TBL 1D SW CHRONIC			360	496	1,784	2,097	2,692	1,217	NGV	35	NGV	35	56	NGV	115
IN WQS TABLE 6.4 WS OUTSIDE ZONE 2024			NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV
SW-01	8/24/2023		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-01	1/31/2024		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-01	5/1/2024		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-02	8/24/2023		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-02	1/31/2024	Duplicate	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-02	1/31/2024		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-02	5/1/2024		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-03	8/24/2023		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-03	1/31/2024		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-03	5/1/2024	Duplicate	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-03	5/1/2024		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-04	8/24/2023		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-04	1/31/2024		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0
SW-04	5/1/2024		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0

TABLE 5  
SURFACE WATER ANALYTICAL DATA  
MPL Putnam  
Fillmore, IN

Sample ID	Date	Notes	1,2-Dichloroethane (ug/L)	1,2-Dichloropropane (ug/L)	1,3,5-Trimethylbenzene (ug/L)	1,3-Dichlorobenzene (ug/L)	1,3-Dichloropropane (ug/L)	1,4-Dichlorobenzene (ug/L)	1-Methylnaphthalene (ug/L)	2,2-Dichloropropane (ug/L)	2-Butanone (MEK) (ug/L)	2-Chlorotoluene (ug/L)	2-Hexanone (ug/L)	2-Methylnaphthalene (ug/L)	4-Chlorotoluene (ug/L)
EPA REG 4 TBL 1A SW FRESHW CHRONIC (ESV)			2,000	520	26	22	NGV	9.4	6.1	NGV	22,000	NGV	99	4.7	NGV
EPA REG 4 TBL 1D SW CHRONIC			2,294	1,064	56	115	NGV	115	NGV	NGV	65,695	NGV	16,871	NGV	NGV
IN WQS TABLE 6.4 WS OUTSIDE ZONE 2024			NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV
SW-01	8/24/2023		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-01	1/31/2024		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-01	5/1/2024		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-02	8/24/2023		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-02	1/31/2024	Duplicate	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-02	1/31/2024		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-02	5/1/2024		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-03	8/24/2023		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-03	1/31/2024		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-03	5/1/2024	Duplicate	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-03	5/1/2024		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-04	8/24/2023		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-04	1/31/2024		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0
SW-04	5/1/2024		< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 20.0	< 1.0	< 20.0	< 1.0	< 20.0	< 20.0	< 1.0

TABLE 5  
SURFACE WATER ANALYTICAL DATA  
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Sample ID	Date	Notes	Acetone (ug/L)	Acrolein (ug/L)	Acrylonitrile (ug/L)	Benzene (ug/L)	Bromobenzene (ug/L)	Bromochloromethane (ug/L)	Bromodichloromethane (ug/L)	Bromoform (ug/L)	Bromomethane (ug/L)	Carbon disulfide (ug/L)	Carbon tetrachloride (ug/L)	Chlorobenzene (ug/L)	Chloroethane (ug/L)
EPA REG 4 TBL 1A SW FRESHW CHRONIC (ESV)			1,700	3	78	160	NGV	NGV	340	230	16	15	77	25	NGV
EPA REG 4 TBL 1D SW CHRONIC			117,629	NGV	NGV	2,173	NGV	NGV	NGV	NGV	NGV	NGV	955	356	NGV
IN WQS TABLE 6.4 WS OUTSIDE ZONE 2024			NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV
SW-01	8/24/2023		< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-01	1/31/2024		< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-01	5/1/2024		< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-02	8/24/2023		< 20.0	< 20.0	< 100	2.1	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-02	1/31/2024	Duplicate	< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-02	1/31/2024		< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-02	5/1/2024		< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-03	8/24/2023		128	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-03	1/31/2024		< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-03	5/1/2024	Duplicate	< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-03	5/1/2024		< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-04	8/24/2023		< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-04	1/31/2024		< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0
SW-04	5/1/2024		< 20.0	< 20.0	< 100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 2.0

TABLE 5  
SURFACE WATER ANALYTICAL DATA  
MPL Putnam  
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Sample ID	Date	Notes	Chloroform (ug/L)	Chloromethane (ug/L)	cis-1,2-Dichloroethene (ug/L)	cis-1,3-Dichloropropene (ug/L)	Dibromochloromethane (ug/L)	Dibromomethane (ug/L)	Dichlorodifluoromethane (ug/L)	Ethyl methacrylate (ug/L)	Ethylbenzene (ug/L)	Heptane (ug/L)	Hexachlorobutadiene (ug/L)	Hexane (ug/L)	Iodomethane (ug/L)
EPA REG 4 TBL 1A SW FRESHW CHRONIC (ESV)			140	NGV	620	NGV	320	NGV	NGV	NGV	61	NGV	1	0.6	NGV
EPA REG 4 TBL 1D SW CHRONIC			5,417	NGV	1,629	NGV	NGV	NGV	NGV	NGV	308	NGV	NGV	NGV	NGV
IN WQS TABLE 6.4 WS OUTSIDE ZONE 2024			NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV
SW-01	8/24/2023		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-01	1/31/2024		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-01	5/1/2024		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-02	8/24/2023		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-02	1/31/2024	Duplicate	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-02	1/31/2024		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-02	5/1/2024		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-03	8/24/2023		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	138	< 5.0
SW-03	1/31/2024		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-03	5/1/2024	Duplicate	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-03	5/1/2024		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-04	8/24/2023		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-04	1/31/2024		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0
SW-04	5/1/2024		< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 20.0	< 1.0	< 5.0	< 1.0	< 5.0	< 5.0

TABLE 5  
SURFACE WATER ANALYTICAL DATA  
MPL Putnam  
Fillmore, IN

Sample ID	Date	Notes	Isopropylbenzene (ug/L)	Methyl Isobutyl Ketone (ug/L)	Methylene chloride (ug/L)	Methyl-tertiary-butyl ether (ug/L)	Naphthalene (ug/L)	n-Butylbenzene (ug/L)	Nonane (ug/L)	n-Propylbenzene (ug/L)	p-Isopropyltoluene (ug/L)	sec-Butylbenzene (ug/L)	Styrene (ug/L)	tert-Butylbenzene (ug/L)	Tetrachloroethene (ug/L)
EPA REG 4 TBL 1A SW FRESHW CHRONIC (ESV)			4.8	170	1,500	730	21	NGV	NGV	NGV	16	NGV	32	NGV	53
EPA REG 4 TBL 1D SW CHRONIC			98	19,142	5,697	30,618	NGV	NGV	NGV	NGV	21	NGV	412	NGV	332
IN WQS TABLE 6.4 WS OUTSIDE ZONE 2024			NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV
SW-01	8/24/2023		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-01	1/31/2024		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-01	5/1/2024		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-02	8/24/2023		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-02	1/31/2024	Duplicate	< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-02	1/31/2024		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-02	5/1/2024		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-03	8/24/2023		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-03	1/31/2024		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-03	5/1/2024	Duplicate	< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-03	5/1/2024		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-04	8/24/2023		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-04	1/31/2024		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SW-04	5/1/2024		< 1.0	< 20.0	< 5.0	< 4.0	< 1.0	< 1.0	< 4.0 N3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

TABLE 5  
SURFACE WATER ANALYTICAL DATA  
MPL Putnam  
Fillmore, IN

Sample ID	Date	Notes	Toluene (ug/L)	trans-1,2-Dichloroethene (ug/L)	trans-1,3-Dichloropropene (ug/L)	trans-1,4-Dichloro-2-butene (ug/L)	Trichloroethene (ug/L)	Trichlorofluoromethane (ug/L)	Vinyl Acetate (ug/L)	Vinyl chloride (ug/L)	Xylene (Total) (ug/L)
EPA REG 4 TBL 1A SW FRESHW CHRONIC (ESV)			62	558	NGV	NGV	220	NGV	16	930	27
EPA REG 4 TBL 1D SW CHRONIC			786	1,629	NGV	NGV	763	NGV	NGV	2,276	260
IN WQS TABLE 6.4 WS OUTSIDE ZONE 2024			NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV	NGV
SW-01	8/24/2023		< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0	< 1.0	< 3.0
SW-01	1/31/2024		< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0	< 1.0	< 3.0
SW-01	5/1/2024		< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0 L1	< 1.0	< 3.0
SW-02	8/24/2023		< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0	< 1.0	< 3.0
SW-02	1/31/2024	Duplicate	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0	< 1.0	< 3.0
SW-02	1/31/2024		< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0	< 1.0	< 3.0
SW-02	5/1/2024		< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0 L1	< 1.0	< 3.0
SW-03	8/24/2023		1.1	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0	< 1.0	3.5
SW-03	1/31/2024		< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0	< 1.0	< 3.0
SW-03	5/1/2024	Duplicate	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0 L1	< 1.0	< 3.0
SW-03	5/1/2024		< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0 L1	< 1.0	< 3.0
SW-04	8/24/2023		< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0	< 1.0	< 3.0
SW-04	1/31/2024		< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0	< 1.0	< 3.0
SW-04	5/1/2024		< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 2.0	< 20.0 L1	< 1.0	< 3.0

**Notes:**

Table 1a and Table 1d are derived from the USEPA region 4's surface water screening values.

Indiana Title 327 IAC 2-1-6: Table 6-4 was used to compare against surface water analytical results.

ug/L = micrograms/liter

< = Not detected at or above indicated laboratory reporting limit

N3: Accreditation is not offered by the relevant laboratory accrediting body for this parameter.

## Figures

Figure 1 – Topographic Map

Figure 2 – Regional Map

Figure 3 – Adjacent Property Map

Figure 4 – Groundwater Elevation Contour Map

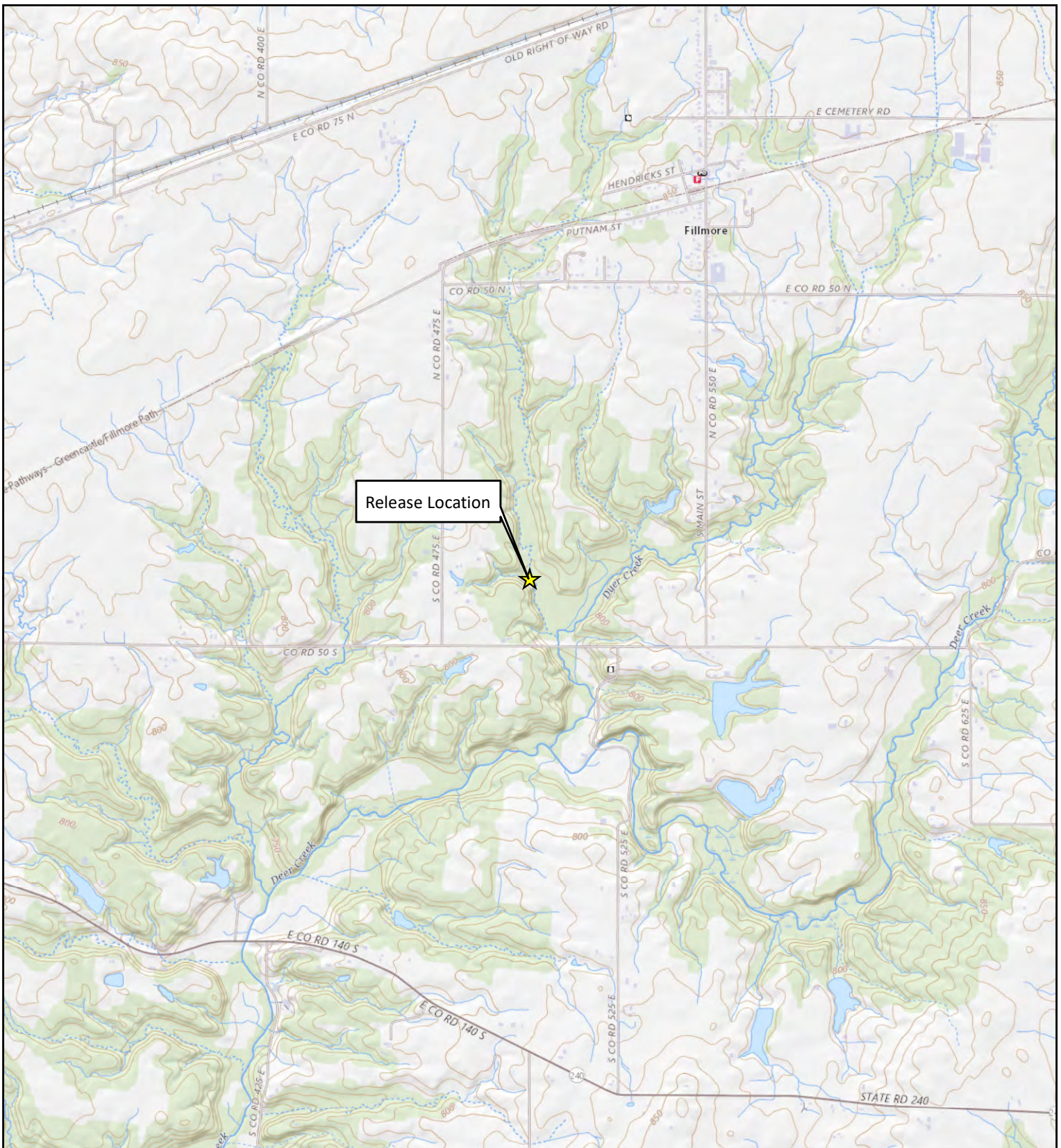
Figure 5 – Groundwater Analytical Results

Figure 6 – Groundwater Lateral Extents of Individual Chemicals of Concern

Figure 7 – Sediment Sample Locations

Figure 8 – Surface Water Sample Locations





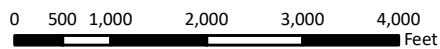
Release Location


**FIGURE 1**

TOPOGRAPHIC MAP  
PUTNAM RESPONSE



USGS 7.5-minute  
Topographic Series  
Greencastle, Indiana



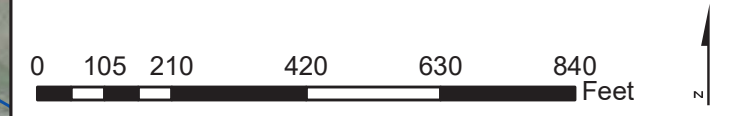
PROJECT NO. XXXXXXXX	PREPARED BY HMF	REF SCALE 1:24,000	
DATE 3/14/2023	REVIEWED BY BF	MAP SCALE 1 INCH = 2,000 FEET	





**Legend**

- ★ Release Location
- Creek Tributary
- MPL Pipeline



**FIGURE 2**  
REGIONAL MAP  
PUTNAM RESPONSE

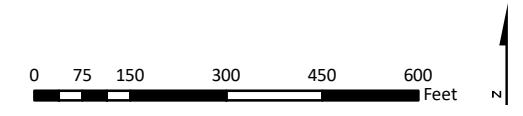
PROJECT NO. XXXXXX	PREPARED BY HMF	REF SCALE 1:3,600
DATE 3/14/2023	REVIEWED BY BF	MAP SCALE 1 INCH = 300 FEET







- Legend**
- Release Location
  - MPL Pipeline
  - Parcel Boundary (Putnam County)
  - Creek Tributary



**FIGURE 3**  
 ADJACENT PROPERTY MAP  
 PUTNAM RESPONSE

PROJECT NO. <i>MPL Putnam Response</i>	PREPARED BY <i>JLH</i>	REF SCALE <i>1:3,600</i>
DATE <i>11/1/2022</i>	REVIEWED BY <i>JP</i>	MAP SCALE <i>1 INCH = 300 FEET</i>







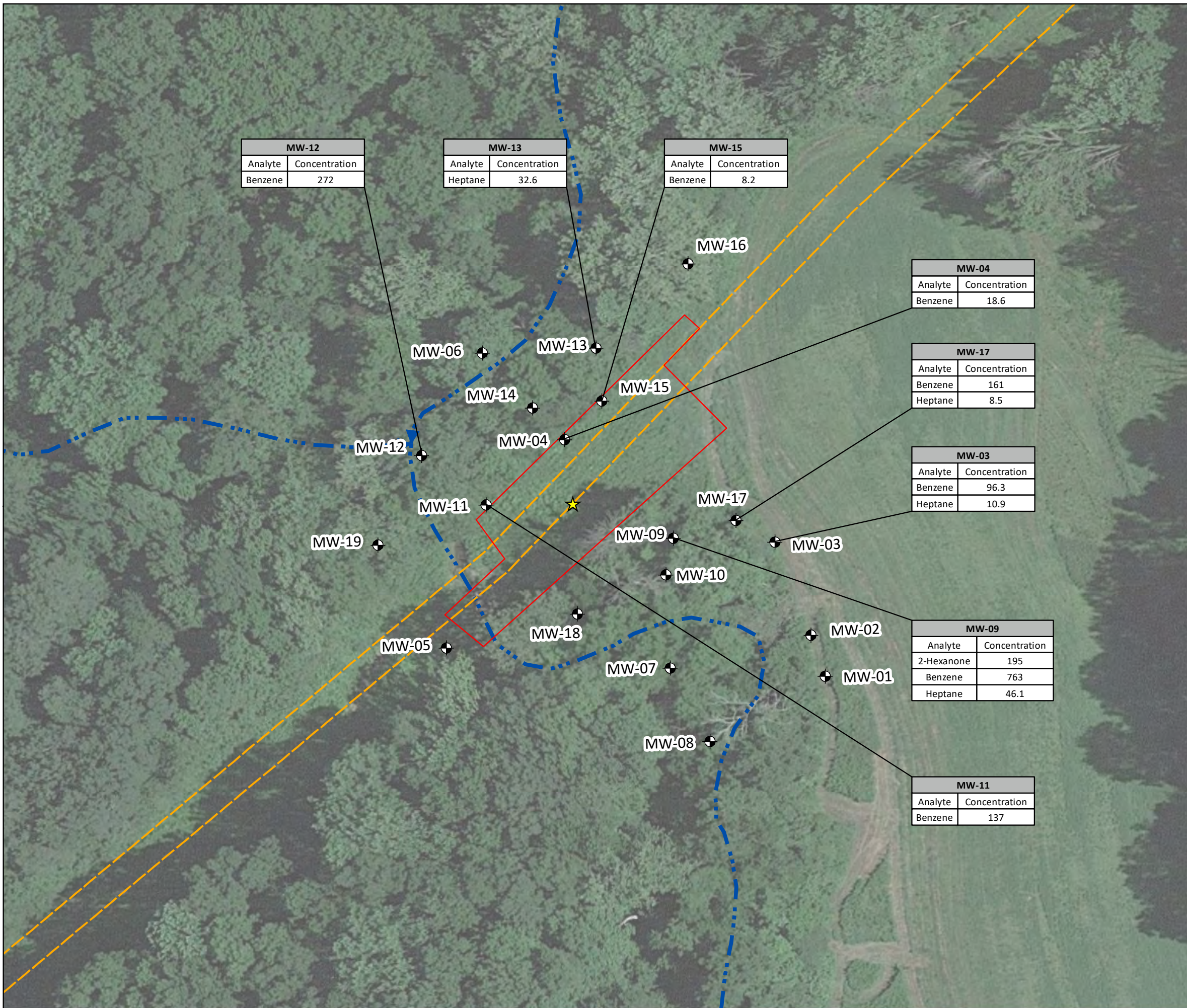
- Legend**
- ⊕ Monitoring Well
  - ★ Release Location
  - ▭ Excavation Area
  - - - MPL Pipeline
  - · - · Intermittent Stream
  - Groundwater Elevation Contour  
Contour Interval = 1 foot
  - ➔ Inferred Groundwater Flow Direction
- (764.47) Groundwater Elevation (feet)



**FIGURE 4**  
GROUNDWATER ELEVATION CONTOUR MAP  
APRIL 29, 2024  
PUTNAM RESPONSE

PROJECT NO. MPL Putnam	PREPARED BY JLH	REF SCALE 1:600	
DATE 5/8/2024	REVIEWED BY BF	MAP SCALE 1 INCH = 50 FEET	





**Legend**

- Monitoring Well
- Release Location
- Excavation Area
- MPL Pipeline
- Intermittent Stream

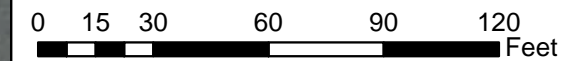
**Note:**

Groundwater concentrations in micrograms per liter (µg/L).

All groundwater concentrations were compared to IDEM's 2023 published levels for the following standards:

-IDEM Groundwater – Long Term Residential

Only concentrations exceeding applicable IDEM RBC action levels are shown.

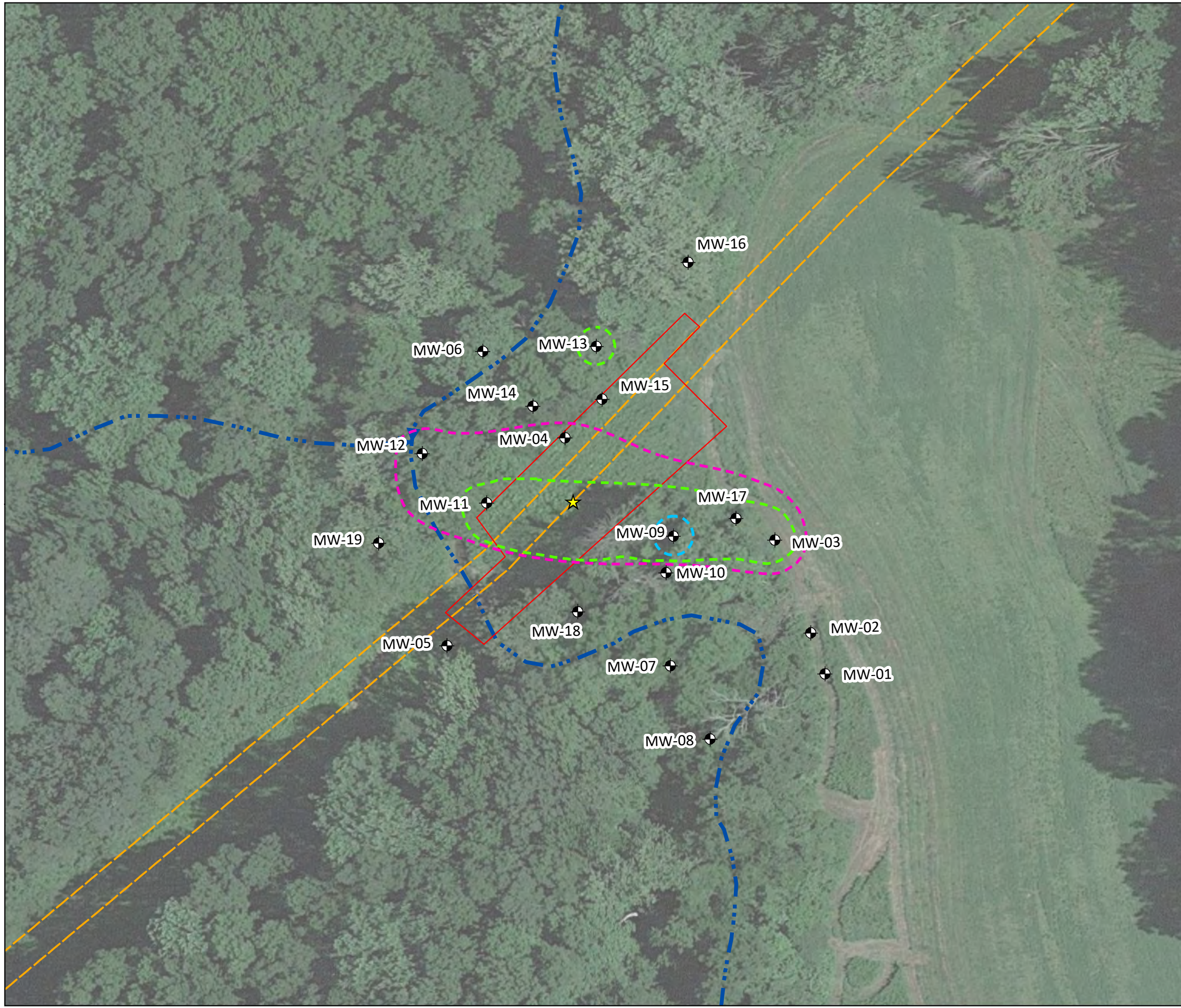


**FIGURE 5**  
GROUNDWATER ANALYTICAL RESULTS  
APRIL 30 - MAY 1, 2024

PUTNAM RESPONSE

PROJECT NO. 2024-06-505222	PREPARED BY MDE	REF SCALE 1:600	
DATE 6/21/2024	REVIEWED BY BF	MAP SCALE 1 INCH = 50 FEET	





**Legend**

- ⊕ Monitoring Well
- ★ Release Location
- Benzene Isoconcentration above 5 µg/L
- 2-Hexanone Isoconcentration above 40 µg/L
- Heptane Isoconcentration above 6 µg/L
- ▭ Excavation Area
- MPL Pipeline
- Intermittent Stream

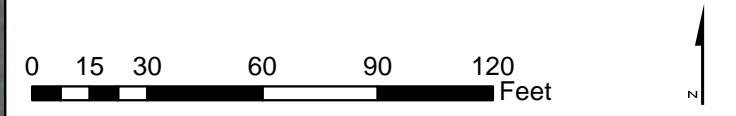
**Note:**

Groundwater concentrations in micrograms per liter (µg/L).

All groundwater concentrations were compared to IDEMS's 2023 published levels for the following standards:

-IDEM Groundwater – Long Term Residential

Only concentrations exceeding applicable IDEM RBC action levels are shown.



**FIGURE 6**  
 GROUNDWATER LATERAL EXTENTS OF INDIVIDUAL CHEMICALS OF CONCERN  
 APRIL 30 - MAY 1, 2024  
 PUTNAM RESPONSE

PROJECT NO. 2024-06-505222	PREPARED BY MDE	REF SCALE 1:600	
DATE 6/21/2024	REVIEWED BY BF	MAP SCALE 1 INCH = 50 FEET	





**Legend**

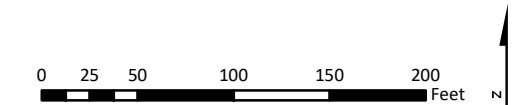
- Sediment Sample Location
- ★ Release Location
- Intermittent Stream
- MPL Pipeline

*Note:*  
 Samples were collected from each point and identified as:

- SS-0X-RB (right bank)
- SS-0X-C (center)
- SS-0X-LB (left bank)


Samples were collected and labeled with an upstream orientation. One sample from each bank and one from an unsaturated portion within the Dyer Creek tributary.

All sediment concentrations were compared to the USEPA's Region 4 Freshwater Sediment Screening Values for Hazardous Waste Sites for Narcotic and non-Narcotic Modes of Action, specifically Ecological Screening Values (ESVs).



**FIGURE 7**





SEDIMENT SAMPLE LOCATIONS  
 PUTNAM RESPONSE

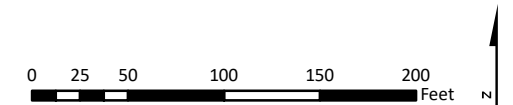
PROJECT NO. 2024-02-505222	PREPARED BY HMF	REF SCALE 1:1,200	
DATE 3/21/2024	REVIEWED BY BF	MAP SCALE 1 INCH = 100 FEET	






**Legend**

-  Surface Water Sample Locations
-  Release Location
-  Intermittent Stream
-  MPL Pipeline



**FIGURE 8**

SURFACE WATER SAMPLE LOCATIONS  
PUTNAM RESPONSE

PROJECT NO. XXXXXX	PREPARED BY XX	REF SCALE 1:1,200	
DATE 3/27/2024	REVIEWED BY XX	MAP SCALE 1 INCH = 100 FEET	



## Appendix A– Low Flow Data



### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW-1	Date:	4/29/24
Client:	Marathon Pipe Line, LLC	Weather:	Partly ☁ 65
Project:	Putnam Response	Sampler:	Joey DeVivo - AS
Depth to Water (DTW):		Well Diameter:	Purging Method (Check box):
6.58		2"	Peristaltic Pump <input checked="" type="checkbox"/>
Depth to Product (DTP):		Screened Interval:	Submersible Pump <input type="checkbox"/>
-			Bailer <input type="checkbox"/>
Free Product Thickness:		Water Column Height:	Other (write in)
-			
Well Depth (DTB):		Pump Inlet Depth (bTOC)	
12.43			
Water quality meter make and model: In-Situ AquaTROLL 600			

Monitoring Well Information

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	7.36	175	7.36	13.42	0.55	0.40	2.51	145.3
6	7.49	100	7.33	13.91	0.55	0.26	4.85	91.1
9	7.66	100	7.32	13.99	0.55	0.23	8.52	62.1
12	7.81	100	7.33	14.16	0.54	0.23	12.69	40.9
15	8.04	100	7.34	13.87	0.54	0.25	13.09	30.9
18	8.29	100	7.33	14.01	0.54	0.39	15.06	36.8
21	8.49	100	7.31	14.15	0.54	0.50	18.02	43.6
24	8.74	100	7.31	14.27	0.55	0.60	27.20	49.4
27	8.98	100	7.31	14.16	0.55	0.66	31.17	53.5
30	9.21	100	7.32	14.29	0.55	0.77	33.92	56.0
33	9.45	100	7.32	14.15	0.55	0.76	41.24	54.7
36	9.67	100	7.33	14.11	0.55	0.84	37.09	49.8
39	9.95	100	7.34	14.18	0.55	0.81	39.86	46.0
42	10.14	100	7.36	13.87	0.55	0.86	37.53	22.7
45	10.32	100	7.37	13.74	0.55	0.84	37.83	13.2
48								

#### Sample Information

Sample ID:	MW-1	Sample Date/Time:	4/29/24 1540	Total mL Purged:	1.5
Duplicate Sample Collected (Y/N)	N	Duplicate Sample ID:	-	Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	N	Split Sample ID:	-		
MS/MSD Sample Collected (Y/N)	N	MS/MSD Sample ID:	-		
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments: Drawdown despite lowest possible flow rate. DNS

Calc: 2.86





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW-02	Date:	20240429
Client:	Marathon Pipe Line, LLC	Weather:	Rainy, 78°F
Project:	Putnam Response	Sampler:	Joey DeVito, J. Zuck

Monitoring Well Information

Depth to Water (DTW):	6.34	Well Diameter:	2"	Purging Method (Check box):	
Depth to Product (DTP):	—	Screened Interval:		Peristaltic Pump	X
Free Product Thickness:	—	Water Column Height:		Submersible Pump	
Well Depth (DTB):	12.44	Pump Inlet Depth (bTOC)		Bailer	
Water quality meter make and model: In-Situ AquaTROLL 600				Other (write in)	

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	7.25	100	7.36	13.70	0.57	0.41	0.01	101.9
6	7.70	100	7.35	13.52	0.57	0.31	2.22	105.8
9	8.05	100	7.35	13.64	0.57	0.36	4.83	108.0
12	8.43	100	7.36	13.86	0.57	0.43	14.85	108.8
15	8.86	100	7.36	13.99	0.58	0.70	25.11	109.9
18	9.22	100	7.35	13.82	0.58	0.70	34.13	111.6
21	9.59	100	7.35	14.29	0.58	0.57	27.37	113.1
24	9.96	100	7.36	14.15	0.58	0.58	34.50	115.4
27	10.22	100	7.36	13.95	0.58	0.55	32.76	117.4
30	10.59	100	7.36	13.85	0.57	0.51	27.21	119.8
33	10.80	100	7.38	14.24	0.57	0.91	38.52	120.2
36	11.55	100	7.37	13.18	0.56	1.32	41.83	123.1
39	12.05	100	7.36	13.02	0.56	0.52	41.37	125.3
42	12.40	100	7.38	13.07	0.56	0.56	34.27	124.8
45								

#### Sample Information

Sample ID:	MW-02	Sample Date/Time:	20240430/0800
Duplicate Sample Collected (Y/N)	N	Duplicate Sample ID:	—
Split Sample Collected (Y/N)	N	Split Sample ID:	—
MS/MSD Sample Collected (Y/N)	N	MS/MSD Sample ID:	—
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>			
# of containers/type	Preservative	Analysis/Method	Field Filtered
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no
			Filter Size/Type
			NA

Comments: DRY AT 42 minutes Drawdown despite lowest possible flow rate.





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW-03	Date:	4/30/24
Client:	Marathon Pipe Line, LLC	Weather:	Foggy 60°
Project:	Putnam Response	Sampler:	Joey DeVivo
Depth to Water (DTW):	6.66	Well Diameter:	2"
Depth to Product (DTP):	—	Screened Interval:	
Free Product Thickness:	—	Water Column Height:	
Well Depth (DTB):	12.29	Pump Inlet Depth (bTOC)	
Water quality meter make and model: In-Situ AquaTROLL 600			Purging Method (Check box):
			Peristaltic Pump <input checked="" type="checkbox"/> X
			Submersible Pump <input type="checkbox"/>
			Bailer <input type="checkbox"/>
			Other (write in) <input type="checkbox"/>

Monitoring Well Information

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	6.31	100	7.37	12.73	0.74	1.36	2.13	-142.8
6	6.46	100	7.43	13.05	0.75	1.15	1.32	-137.0
9	6.57	100	7.45	12.74	0.75	0.69	1.63	-147.6
12	6.67	100	7.46	12.69	0.74	0.82	0.00	-145.3
15	6.83	100	7.47	12.70	0.74	0.48	0.00	-137.6
18	6.94	100	7.48	12.73	0.74	0.42	0.00	-145.7
21	7.16	100	7.47	12.69	0.74	0.39	0.00	-136.1
24	7.38	100	7.46	12.58	0.74	0.29	0.00	-135.8
27	7.63	100	7.44	12.63	0.74	0.33	0.00	-141.2
30	7.70	100	7.42	12.83	0.74	0.36	0.32	-145.1
33	7.86	100	7.42	13.06	0.73	1.28	0.00	-133.3
36	8.11	100	7.40	12.84	0.73	0.30	0.00	-132.9
39	8.46	100	7.37	12.99	0.72	0.30	0.96	-126.2
42	8.69	100	7.31	12.99	0.71	0.32	3.85	-114.4
45	8.80	100	7.23	12.44	0.68	0.38	8.60	-99.7

#### Sample Information

Sample ID:	MW-03	Sample Date/Time:	4/30/24 0852	Total mL Purged:	1.0
Duplicate Sample Collected (Y/N)	N	Duplicate Sample ID:	—	Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	N	Split Sample ID:	—		
MS/MSD Sample Collected (Y/N)	N	MS/MSD Sample ID:	—		
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments: Drawdown despite lowest possible flow rate, DNS





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW- 4	Date:	4/30/24
Client:	Marathon Pipe Line, LLC	Weather:	Sunny 65°
Project:	Putnam Response	Sampler:	Joey DeVivo AS

Monitoring Well Information

Depth to Water (DTW):	5.49	Well Diameter:	2"	Purging Method (Check box):	
Depth to Product (DTP):	—	Screened Interval:		Peristaltic Pump	X
Free Product Thickness:	—	Water Column Height:		Submersible Pump	
Well Depth (DTB):	11.71	Pump Inlet Depth (bTOC)		Bailer	
Water quality meter make and model: In-Situ AquaTROLL 600				Other (write in)	

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	5.22	100	7.48	14.72	0.73	0.29	17.25	-123.6
6	5.29	100	7.48	13.79	0.73	0.53	8.38	-120.6
9	5.39	100	7.48	13.75	0.73	0.43	1.85	-120.5
12	5.40	100	7.48	13.77	0.73	0.32	0.75	-121.9
15	5.41	100	7.49	13.56	0.73	0.29	0.59	-122.7
18	5.39	106	7.50	13.64	0.73	0.51	0.00	-125.7
21	5.39	100	7.51	13.42	0.73	0.28	0.00	-125.3
24	5.39	100	7.51	13.57	0.73	0.22	0.00	-125.5
27	5.39	100	7.52	13.50	0.73	0.21	0.00	-126.2
30	5.39	100	7.52	13.61	0.73	0.19	0.00	-126.1
33	5.39	100	7.53	13.53	0.73	0.19	0.00	-126.9
36								
39								
42								
45								

#### Sample Information

Sample ID:	MW-04	Sample Date/Time:	4/30/24 1105
Duplicate Sample Collected (Y/N)	N	Duplicate Sample ID:	—
Split Sample Collected (Y/N)	N	Split Sample ID:	—
MS/MSD Sample Collected (Y/N)	N	MS/MSD Sample ID:	—
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>			
# of containers/type	Preservative	Analysis/Method	Field Filtered
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no
			Filter Size/Type
			NA

Comments:





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW-05	Date:	4/30/24
Client:	Marathon Pipe Line, LLC	Weather:	Sunny 70°
Project:	Putnam Response	Sampler:	Joey DeVivo AS

Monitoring Well Information

Depth to Water (DTW):	4.24	Well Diameter:	2"	Purging Method (Check box):
Depth to Product (DTP):	—	Screened Interval:		Peristaltic Pump <input checked="" type="checkbox"/>
Free Product Thickness:	—	Water Column Height:		Submersible Pump <input type="checkbox"/>
Well Depth (DTB):	9.82	Pump Inlet Depth (bTOC)		Bailer <input type="checkbox"/>
Water quality meter make and model: In-Situ AquaTROLL 600				Other (write in) <input type="checkbox"/>

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	4.22	100	7.10	14.87	0.65	0.89	24.88	-92.3
6	4.24	100	7.06	14.92	0.65	0.56	10.52	-86.4
9	4.21	100	7.06	15.16	0.65	0.66	20.69	-81.9
12	4.19	100	7.07	15.50	0.64	0.54	23.03	-83.8
15	4.19	100	7.07	16.63	0.65	0.55	8.85	-82.5
18	4.20	100	7.10	13.64	0.63	0.18	5.54	-82.1
21	4.20	100	7.10	13.54	0.63	0.14	2.76	-83.8
24	4.22	100	7.10	13.56	0.63	0.13	1.72	-85.0
27	4.22	100	7.10	13.62	0.63	0.12	24.09	-85.9
30	4.22	100	7.11	13.68	0.63	0.13	0.49	-86.2
33	4.22	100	7.12	13.59	0.63	0.15	1.24	-86.1
36	4.22	100	7.13	13.58	0.63	0.17	5.77	-86.6
39	4.22	100	7.13	13.66	0.63	0.18	0.44	-86.1
42	4.22	100	7.14	14.04	0.63	0.20	0.95	-85.7
45	4.22	100	7.15	14.37	0.63	0.23	0.24	-85.4

#### Sample Information

Sample ID:	MW-05	Sample Date/Time:	4/30/24 1410
Duplicate Sample Collected (Y/N)	N	Duplicate Sample ID:	—
Split Sample Collected (Y/N)	N	Split Sample ID:	—
MS/MSD Sample Collected (Y/N)	N	MS/MSD Sample ID:	—
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>			
# of containers/type	Preservative	Analysis/Method	Field Filtered
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no
			Filter Size/Type
			NA

Comments:





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW- 06	Date:	20240501
Client:	Marathon Pipe Line, LLC	Weather:	60°r OVC
Project:	Putnam Response	Sampler:	Joey DeVivo JZ

Monitoring Well Information

Depth to Water (DTW):	3.82	Well Diameter:	2"	Purging Method (Check box):
Depth to Product (DTP):	-	Screened Interval:		Peristaltic Pump <input checked="" type="checkbox"/>
Free Product Thickness:	-	Water Column Height:		Submersible Pump <input type="checkbox"/>
Well Depth (DTB):	9.29	Pump Inlet Depth (bTOC)		Bailer <input type="checkbox"/>
Water quality meter make and model: In-Situ AquaTROLL 600				Other (write in)

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ±0.1	Temp. (°C) ±0.5	Conductivity (mS/cm) ±3%	DO (mg/L) ±10%	Turbidity (NTU) ±10%	ORP (mV) ±10 mv
3	4.87	130	7.08	11.98	0.78	0.58	7.58	62.4
6	5.53	130	7.11	12.00	0.75	0.39	10.65	-53.5
9	5.82	115	7.07	12.31	0.72	0.38	6.17	-44.9
12	6.03	115	7.06	12.52 <sup>12.46</sup>	0.70	0.59	2.58	-27.6
15	6.13	115	7.08	12.50 <sup>12.50</sup>	0.69	0.98	1.66	-26.3
18	6.35	115	7.11	12.52 <sup>12.52</sup>	0.68	1.62	1.92	-41.6
21	6.52	115	7.14	12.55	0.69	2.29	1.36	-56.4
24	6.80	115	7.15	12.51	0.69	2.64	2.05	-56.8
27	6.95	115	7.17	12.45	0.69	2.95	3.09	-56.2
30	7.13	115	7.18	12.39	0.69	3.22	1.91	-53.9
33	7.29	115	7.19	12.34	0.69	3.44	2.95	-50.0
36	7.48	115	7.20	12.30	0.69	3.74	0.64	-47.2
39	7.69	115	7.21	12.20	0.70	3.99	0.68	-42.9
42	7.90	115	7.21	12.12	0.71	3.48	2.54	-37.8
45	8.07	115	7.21	12.14	0.71	3.13	1.15	-35.3

#### Sample Information

Sample ID:	MW-06	Sample Date/Time:	20240501 / 0752	Total mL Purged:	2.5
Duplicate Sample Collected (Y/N)	-	Duplicate Sample ID:	-	Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	-	Split Sample ID:	-		
MS/MSD Sample Collected (Y/N)	-	MS/MSD Sample ID:	-		
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments:

2.6





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW- 07	Date:	20240430
Client:	Marathon Pipe Line, LLC	Weather:	85°F Sun
Project:	Putnam Response	Sampler:	Joey DeVivo
Depth to Water (DTW):	4.93	Well Diameter:	2"
Depth to Product (DTP):	-	Screened Interval:	
Free Product Thickness:	-	Water Column Height:	
Well Depth (DTB):	11.54	Pump Inlet Depth (bTOC)	
Water quality meter make and model: In-Situ AquaTROLL 600		Purging Method (Check box):	
		Peristaltic Pump	X
		Submersible Pump	
		Bailer	
		Other (write in)	

Monitoring Well Information

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	5.00	130	7.57	12.52	0.67	0.21	0.00	-118.8
6	5.03	130	7.56	12.25	0.68	0.13	8.02	-128.4
9	5.04	130	7.56	12.29	0.67	0.10	8.89	-133.7
12	5.04	130	7.56	12.17	0.67	0.09	9.72	-136.5
15	5.09	130	7.57	12.01	0.67	0.07	7.74	-137.7
18	5.12	130	7.57	11.88	0.67	0.06	9.14	-139.0
21	5.12	130	7.57	11.89	0.66	0.06	11.57	-140.4
24	5.13	130	7.57	11.96	0.66	0.05	14.31	-141.7
27	5.13	130	7.57	11.95	0.66	0.05	18.26	-142.6
30	5.13	130	7.57	12.02	0.66	0.05	20.97	-143.7
33	5.13	130	7.58	11.84	0.65	0.04	28.53	-144.3
36	5.13	130	7.58	11.98	0.65	0.04	31.79	-145.5
39	5.13	130	7.58	12.02	0.65	0.04	34.60	-146.1
42	5.13	130	7.58	11.84	0.65	0.04	59.05	-146.8
45	5.13	130	7.58	12.04	0.65	0.04	49.83	-147.8

#### Sample Information

Sample ID:	MW-07	Sample Date/Time:	20240430 / 1520	Total mL Purged:	2.75
Duplicate Sample Collected (Y/N)	-	Duplicate Sample ID:	-	Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	-	Split Sample ID:	-		
MS/MSD Sample Collected (Y/N)	-	MS/MSD Sample ID:	-		
Sampling method (Check one): Soda Straw _____ / Bailer Grab _____ / Tubing Through Pump (not preferred) _____					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments:

3.2





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW- 08	Date:	20240430
Client:	Marathon Pipe Line, LLC	Weather:	82° Sunny
Project:	Putnam Response	Sampler:	Joey DeWitt JR

Monitoring Well Information

Depth to Water (DTW):	3.49	Well Diameter:	2"	Purging Method (Check box):	
Depth to Product (DTP):	-	Screened Interval:		Peristaltic Pump	X
Free Product Thickness:	-	Water Column Height:		Submersible Pump	
Well Depth (DTB):	11.91	Pump Inlet Depth (bTOC)		Bailer	
Water quality meter make and model: In-Situ AquaTROLL 600				Other (write in)	

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	4.34	140	7.45	12.57	0.58	0.43	6.68	-94.3
6	4.58	140	7.40	12.25	0.58	0.27	6.48	-99.0
9	4.70	140	7.35	12.19	0.58	0.20	11.79	-102.5
12	4.76	140	7.35	12.24	0.58	0.15	8.00	-102.2
15	4.84	140	7.35	12.14	0.58	0.11	6.68	-105.7
18	4.89	140	7.35	12.25	0.57	0.10	9.19	-104.7
21	4.89	140	7.36	12.26	0.57	0.09	15.96	-105.1
24	4.90	140	7.38	12.17	0.57	0.07	17.01	-107.5
27	4.90	140	7.39	12.14	0.57	0.07	20.22	-107.1
30	4.91	140	7.40	12.24	0.56	0.06	18.86	-110.0
33	4.91	140	7.43	12.27	0.56	0.06	28.12	-112.7
36	4.91	140	7.45	12.22	0.56	0.05	17.15	-115.1
39	4.91	140	7.46	12.40	0.56	0.05	21.14	-116.4
42	4.91	140	7.47	12.34	0.56	0.05	30.96	-115.3
45	4.92	140	7.49	12.33	0.55	0.05	37.80	-114.8

#### Sample Information

Sample ID:	MW-08	Sample Date/Time:	04/30/24/1418
Duplicate Sample Collected (Y/N)	-	Duplicate Sample ID:	-
Split Sample Collected (Y/N)	-	Split Sample ID:	-
MS/MSD Sample Collected (Y/N)	-	MS/MSD Sample ID:	-
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>			
# of containers/type	Preservative	Analysis/Method	Field Filtered
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no
		Filter Size/Type	NA

Comments:

4.0





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW-09	Date:	20240430
Client:	Marathon Pipe Line, LLC	Weather:	60°F OK, fog
Project:	Putnam Response	Sampler:	Joey Devine J. Swart
Depth to Water (DTW): 5.62		Well Diameter:	2"
Depth to Product (DTP): -		Screened Interval:	
Free Product Thickness: -		Water Column Height:	
Well Depth (DTB): 10.18		Pump Inlet Depth (bTOC):	
Water quality meter make and model: In-Situ AquaTROLL 600			Other (write in)

Monitoring Well Information

Depth to Water (DTW):	5.62	Well Diameter:	2"	Purging Method (Check box):	
Depth to Product (DTP):	-	Screened Interval:		Peristaltic Pump	X
Free Product Thickness:	-	Water Column Height:		Submersible Pump	
Well Depth (DTB):	10.18	Pump Inlet Depth (bTOC):		Bailer	
Water quality meter make and model: In-Situ AquaTROLL 600			Other (write in)		

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. bTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	5.93	120	7.24	12.58	0.74	0.40	16.45	-112.3
6	6.19	120	7.26	12.59	0.74	0.26	15.44	-119.9
9	6.44	120	7.25	12.70	0.73	0.19	19.43	-121.4
12	6.79	120	7.14	12.96	0.70	0.19	31.21	-112.7
15	7.10	100	7.12	13.29	0.72	0.34	42.31	-104.6
18	7.27	100	7.05	13.48	0.68	0.31	39.60	-99.0
21	7.43	100	7.03	13.50	0.68	0.36	48.27	-87.4
24	7.65	100	7.02	13.55	0.68	0.49	56.47	-78.2
27	7.93	100	7.01	13.42	0.67	0.58	62.85	-72.0
30	8.19	100	7.02	13.46	0.67	0.74	42.35	-65.6
33	8.48	100	7.02	13.37	0.66	1.03	38.81	-55.4
36	8.75	100	7.03	13.35	0.65	1.41	46.33	-46.4
39:58	9.13	100	7.04	13.25	0.65	1.87	68.77	-38.9
42:58	9.42	100	7.06	13.05	0.65	2.26	77.33	-35.4
45:58		100	7.08	13.25	0.66	2.48	115.78	-40.8

#### Sample Information

Sample ID:	MW-09	Sample Date/Time:	20240430/1015	Total mL Purged:	1.75 2.01
Duplicate Sample Collected (Y/N)	-	Duplicate Sample ID:		Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	-	Split Sample ID:			
MS/MSD Sample Collected (Y/N)		MS/MSD Sample ID:			
Sampling method (Check one): Soda Straw _____ / Bailer Grab _____ / Tubing Through Pump (not preferred) _____					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments: 2.2 gal Purge  
 \* 39:58 → Error occurred with correction





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW- 10	Date:	2024/04/30
Client:	Marathon Pipe Line, LLC	Weather:	65°F Sunny
Project:	Putnam Response	Sampler:	Joey DeVivo Jr
Depth to Water (DTW):		Well Diameter:	Purging Method (Check box):
6.47		2"	Peristaltic Pump <input checked="" type="checkbox"/>
Depth to Product (DTP):		Screened Interval:	Submersible Pump <input type="checkbox"/>
-			Bailer <input type="checkbox"/>
Free Product Thickness:		Water Column Height:	Other (write in)
-			
Well Depth (DTB):		Pump Inlet Depth (bTOC)	
12.56			
Water quality meter make and model: In-Situ AquaTROLL 600			

Monitoring Well Information

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	7.45	130	7.58	14.31	0.65	0.45	24.93	-94.7
6	7.93	100	7.60	14.53	0.65	0.31	20.93	-104.3
9	8.16	100	7.59	14.99	0.65	0.28	34.08	-106.1
12	8.47	100	7.59	14.82	0.65	0.24	40.37	-105.7
15	8.64	100	7.59	14.86	0.64	0.21	40.14	-107.3
18	9.05	100	7.60	14.94	0.64	0.22	44.74	-102.5
21	9.32	100	7.60	14.87	0.64	0.24	51.23	-103.0
24	9.55	100	7.60	14.99	0.64	0.24	41.04	-104.6
27	9.79	100	7.60	14.96	0.64	0.24	51.32	-106.3
30	10.01	100	7.60	14.92	0.64	0.25	54.27	-106.2
33	10.19	100	7.59	15.56	0.64	0.24	52.31	-107.6
36	10.42	100	7.59	15.70	0.64	0.24	63.42	-107.8
39	10.60	100	7.59	15.30	0.63	0.26	78.46	-108.6
42	10.79	100	7.58	15.89	0.63	0.26	94.34	-110.2
45	10.94	100	7.58	15.69	0.62	0.27	115.05	-110.3

#### Sample Information

Sample ID:	MW-10	Sample Date/Time:	2024/04/30 / 1122	Total mL Purged:	2.5
Duplicate Sample Collected (Y/N)	-	Duplicate Sample ID:	-	Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	-	Split Sample ID:	-		
MS/MSD Sample Collected (Y/N)	✓	MS/MSD Sample ID:	-		
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments:





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW- 11	Date:	20240430
Client:	Marathon Pipe Line, LLC	Weather:	75°F Sunny
Project:	Putnam Response	Sampler:	Joey DeVivo JE
Depth to Water (DTW):	4.36	Well Diameter:	2"
Depth to Product (DTP):	-	Screened Interval:	
Free Product Thickness:	-	Water Column Height:	
Well Depth (DTB):	14.42	Pump Inlet Depth (bTOC)	
Water quality meter make and model: In-Situ AquaTROLL 600			Other (write in)

Monitoring Well Information

Depth to Water (DTW):	4.36	Well Diameter:	2"	Purging Method (Check box):	
Depth to Product (DTP):	-	Screened Interval:		Peristaltic Pump	X
Free Product Thickness:	-	Water Column Height:		Submersible Pump	
Well Depth (DTB):	14.42	Pump Inlet Depth (bTOC)		Bailer	
Water quality meter make and model: In-Situ AquaTROLL 600			Other (write in)		

### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	4.36	100	7.43	12.84	0.74	0.45	4.50	-130.3
6	5.14	100	7.40	12.61	0.74	0.33	5.04	-136.1
9	5.24	100	7.39	12.67	0.74	0.29	7.46	-141.9
12	5.25	100	7.38	12.63	0.74	0.26	15.67	-143.1
15	5.27	100	7.38	12.81	0.74	0.24	21.23	-144.7
18	5.27	100	7.38	12.87	0.73	0.22	24.80	-146.0
21	5.29	120	7.38	12.79	0.73	0.20	20.17	-145.5
24	5.40	120	7.35	12.60	0.72	0.18	19.05	-142.1
27	5.49	120	7.30	12.76	0.72	0.18	21.91	-137.4
30	5.51	120	7.27	12.90	0.72	0.19	22.91	-130.2
33	5.53	120	7.26	12.76	0.72	0.20	19.40	-126.7
36	5.56	120	7.25	12.88	0.73	0.20	18.33	-124.8
39	5.59	120	7.24	12.80	0.73	0.21	19.26	-122.4
42								
45								

### Sample Information

Sample ID:	MW-11	Sample Date/Time:	20240430 / 1250	Total mL Purged:	2.75 gal
Duplicate Sample Collected (Y/N)	Yes	Duplicate Sample ID:	DUP-01	Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	-	Split Sample ID:	-		
MS/MSD Sample Collected (Y/N)	-	MS/MSD Sample ID:	-		
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments: Increase Purge Rate to get more Purges

*Signature*





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW- 12	Date:	20240430
Client:	Marathon Pipe Line, LLC	Weather:	☀️ 87° Sun
Project:	Putnam Response	Sampler:	Joey DeVivo
Depth to Water (DTW):		Well Diameter:	Purging Method (Check box):
4.15		2"	Peristaltic Pump <input checked="" type="checkbox"/>
Depth to Product (DTP):		Screened Interval:	Submersible Pump <input type="checkbox"/>
-			Bailer <input type="checkbox"/>
Free Product Thickness:		Water Column Height:	Other (write in)
-			
Well Depth (DTB):	11.14	Pump Inlet Depth (bTOC)	
Water quality meter make and model: In-Situ AquaTROLL 600			

Monitoring Well Information

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	4.20	120	7.24	12.79	0.85	0.45	15.45	-122.8
6	4.18	120	7.31	12.65	0.83	0.27	1.33	-133.6
9	4.18	120	7.35	12.57	0.83	0.18	0.00	-139.1
12	4.18	120	7.37	12.56	0.82	0.13	0.00	-143.6
15	4.18	120	7.37	12.58	0.82	0.10	0.00	-147.3
18	4.18	120	7.38	12.53	0.82	0.08	0.00	-148.6
21	4.18	120	7.38	12.37	0.82	0.07	0.00	-151.0
24	4.18	120	7.38	12.54	0.82	0.06	0.00	-152.5
27	4.18	120	7.38	12.49	0.82	0.05	0.00	-154.4
30	4.18	120	7.38	12.56	0.82	0.05	0.00	-155.0
33	4.18	120	7.38	12.52	0.82	0.04	0.00	-155.4
36	4.18	120	7.38	12.48	0.82	0.04	0.00	-155.6
39	4.18	120	7.38	12.30	0.82	0.04	0.00	-156.2
42								

#### Sample Information

Sample ID:	MW-12	Sample Date/Time:	20240430 / 1714	Total mL Purged:	2.5
Duplicate Sample Collected (Y/N)	-	Duplicate Sample ID:	-	Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	-	Split Sample ID:	-		
MS/MSD Sample Collected (Y/N)	-	MS/MSD Sample ID:	-		
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments:





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW- 13	Date:	5/11/24
Client:	Marathon Pipe Line, LLC	Weather:	Sunny 60°
Project:	Putnam Response	Sampler:	Jody DeVivo AS

Monitoring Well Information

Depth to Water (DTW):	4.99	Well Diameter:	2"	Purging Method (Check box):
Depth to Product (DTP):	—	Screened Interval:		Peristaltic Pump <input checked="" type="checkbox"/>
Free Product Thickness:	—	Water Column Height:		Submersible Pump <input type="checkbox"/>
Well Depth (DTB):	10.45	Pump Inlet Depth (bTOC)		Bailer <input type="checkbox"/>
Water quality meter make and model: In-Situ AquaTROLL 600				Other (write in)

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	4.69	100	7.36	13.78	0.64	1.22	5.62	-106.9
6	4.70	100	7.34	13.93	0.68	0.50	4.68	-110.1
9	4.70	100	7.33	13.96	0.63	0.36	1.84	-111.4
12	4.72	100	7.31	14.24	0.60	0.29	0.64	-107.5
15	4.76	100	7.31	14.45	0.59	0.34	0.11	-106.4
18	4.78	100	7.30	14.72	0.60	0.40	0.00	-104.4
21	4.78	100	7.30	14.97	0.60	0.60	0.00	-102.4
24	4.79	100	7.30	15.19	0.60	0.70	0.00	-101.1
27	4.81	100	7.30	17.09	0.59	1.03	0.00	-101.3
30	4.81	100	7.27	15.71	0.58	0.38	0.01	-97.5
33	4.81	100	7.25	15.53	0.58	0.27	0.00	-96.4
36	4.81	100	7.25	15.67	0.58	0.22	0.00	-96.8
39	4.81	100	7.25	15.85	0.58	0.17	1.50	-100.1
42	4.81	100	7.24	15.88	0.58	0.17	0.00	-99.0
45	4.81	100	7.24	15.95	0.58	0.17	0.09	-98.4

#### Sample Information

Sample ID:	MW-13	Sample Date/Time:	5/11/24/0910
Duplicate Sample Collected (Y/N)	N	Duplicate Sample ID:	—
Split Sample Collected (Y/N)	N	Split Sample ID:	—
MS/MSD Sample Collected (Y/N)	N	MS/MSD Sample ID:	—
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>			
# of containers/type	Preservative	Analysis/Method	Field Filtered
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no
			Filter Size/Type
			NA

Comments:





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW-14	Date:	20240501
Client:	Marathon Pipe Line, LLC	Weather:	68, Sunny
Project:	Putnam Response	Sampler:	Joey DeVivo JB
Depth to Water (DTW): 5.30		Well Diameter:	2"
Depth to Product (DTP): -		Screened Interval:	
Free Product Thickness: -		Water Column Height:	
Well Depth (DTB): 14.31		Pump Inlet Depth (bTOC)	
Water quality meter make and model: In-Situ AquaTROLL 600			Other (write in)

Monitoring Well Information

Purging Method (Check box):	
Peristaltic Pump	<input checked="" type="checkbox"/>
Submersible Pump	<input type="checkbox"/>
Bailer	<input type="checkbox"/>

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	5.40	140	7.42	11.59	0.80	0.47	4.97	-81.5
6	5.65	140	7.43	11.52	0.79	0.20	5.17	-91.6
9	5.66	140	7.43	11.51	0.79	0.22	7.06	-97.1
12	5.67	140	7.44	11.62	0.79	0.17	3.00	-101.4
15	5.67	140	7.44	11.60	0.79	0.13	3.19	-104.8
18	5.67	140	7.44	11.60	0.78	0.10	5.80	-106.4
21	5.67	140	7.44	11.69	0.78	0.08	5.03	-108.4
24	5.67	140	7.44	11.76	0.78	0.07	6.97	-110.0
27	5.67	140	7.44	11.74	0.78	0.06	14.27	-110.8
30	5.67	140	7.44	11.82	0.79	0.06	18.81	-112.0
33	5.67	140	7.44	11.76	0.79	0.05	27.34	-112.9
36	5.67	140	7.44	11.92	0.77	0.07	36.48	-113.0
39	5.67	140	7.44	11.89	0.77	0.09	42.30	-113.4
42	5.67	140	7.43	11.97	0.77	0.14	52.56	-114.7
45	5.67	140	7.43	12.05	0.77	0.15	59.81	-115.7

#### Sample Information

Sample ID:	MW-14	Sample Date/Time:	20240501/0858	Total mL Purged:	3.75
Duplicate Sample Collected (Y/N)	-	Duplicate Sample ID:	-	Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	-	Split Sample ID:	-		
MS/MSD Sample Collected (Y/N)	-	MS/MSD Sample ID:	-		
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments:

4.4





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW- 15	Date:	4/30/24
Client:	Marathon Pipe Line, LLC	Weather:	Foggy 60°
Project:	Putnam Response	Sampler:	Iney DeVivo AS

Monitoring Well Information

Depth to Water (DTW):	5.70	Well Diameter:	2"	Purging Method (Check box):	
Depth to Product (DTP):	—	Screened Interval:		Peristaltic Pump	X
Free Product Thickness:	—	Water Column Height:		Submersible Pump	
Well Depth (DTB):	10.52	Pump Inlet Depth (bTOC)		Bailer	
Water quality meter make and model: In-Situ AquaTROLL 600				Other (write in)	

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	4.99	100	7.09	13.71	0.83	0.81	10.28	-52.9
6	5.00	100	7.09	13.65	0.82	0.56	15.15	-54.8
9	5.02	100	7.10	13.60	0.82	0.46	20.36	-59.9
12	5.00	100	7.10	13.67	0.82	0.46	6.28	-57.4
15	4.99	100	7.09	13.65	0.83	0.42	14.14	-54.8
18	4.99	100	7.07	13.75	0.84	0.52	13.82	-47.5
21	4.99	100	7.06	13.89	0.85	0.61	8.42	-43.8
24	4.99	100	7.03	14.03	0.87	0.70	4.62	-37.7
27	4.99	100	7.01	14.15	0.89	0.72	3.80	-33.6
30	5.00	100	7.01	14.01	0.89	0.70	4.72	-31.3
33	5.00	100	7.00	13.87	0.89	0.69	2.34	-30.4
36	5.00	100	6.98	14.07	0.91	0.66	1.30	-25.3
39	5.00	100	6.97	14.32	0.92	0.71	1.18	-20.5
42	5.00	100	6.96	14.41	0.92	0.70	0.11	-18.8
45	5.00	100	6.96	14.26	0.93	0.69	0.00	-17.0

#### Sample Information

Sample ID:	MW-15	Sample Date/Time:	4/30/24 1000	Total mL Purged:	1.75
Duplicate Sample Collected (Y/N)	N	Duplicate Sample ID:	<del>Dup or</del>	Did Well Dewater?	N
Split Sample Collected (Y/N)	N	Split Sample ID:	—	(Y/N)	
MS/MSD Sample Collected (Y/N)	N	MS/MSD Sample ID:	—		
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments: ~~DTW~~, Turbidity DNS





**MONITORING WELL DATA SHEET - LOW FLOW SAMPLING**

Well I.D.:	MW- 16	Date:	5/11/24
Client:	Marathon Pipe Line, LLC	Weather:	Sunny 60°
Project:	Putnam Response	Sampler:	Joey DeVivo AS

Monitoring Well Information

Depth to Water (DTW):	3.69	Well Diameter:	2"	Purging Method (Check box):	
Depth to Product (DTP):	—	Screened Interval:		Peristaltic Pump	X
Free Product Thickness:	—	Water Column Height:		Submersible Pump	
Well Depth (DTB):	10.45	Pump Inlet Depth (bTOC)		Bailer	
Water quality meter make and model: In-Situ AquaTROLL 600				Other (write in)	

**Water Quality Parameter Measurements**

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	3.91	100	6.99	12.04	0.82	0.82	0.09	211.8
6	4.10	100	7.01	11.94	0.82	0.62	12.28	206.1
9	4.28	100	7.00	11.96	0.81	0.50	10.56	165.5
12	4.31	100	7.02	12.08	0.76	0.25	17.38	62.4
15	4.36	100	7.02	12.28	0.72	0.26	2.89	17.6
18	4.39	100	7.03	12.15	0.70	0.35	4.17	-2.5
21	4.42	100	7.04	11.87	0.68	0.24	0.58	-11.9
24	4.48	100	7.05	11.88	0.68	0.22	0.13	-12.6
27	4.48	100	7.05	11.91	0.68	0.17	0.13	-10.9
30	4.48	100	7.05	11.94	0.68	0.15	0.23	-8.1
33	4.48	100	7.06	11.96	0.68	0.13	0.00	-8.0
36	4.48	100	7.06	11.97	0.68	0.13	0.30	-7.0
39	4.48	100	7.07	11.96	0.68	0.12	0.00	-6.2
42	4.48	100	7.07	11.99	0.68	0.11	0.06	-5.9
45	4.48	100	7.07	12.11	0.68	0.11	0.00	-4.5

**Sample Information**

Sample ID:	MW-16	Sample Date/Time:	5/11/24 0745	Total mL Purged:	2.0
Duplicate Sample Collected (Y/N)	N	Duplicate Sample ID:	—	Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	N	Split Sample ID:	—		
MS/MSD Sample Collected (Y/N)	N	MS/MSD Sample ID:	—		
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments: Drawdown despite lowest possible flow rate





**MONITORING WELL DATA SHEET - LOW FLOW SAMPLING**

Well I.D.:	MW- 17	Date:	20240430
Client:	Marathon Pipe Line, LLC	Weather:	55°F Fog
Project:	Putnam Response	Sampler:	Joey DeVivo J. Ewock
Depth to Water (DTW): 4.61		Well Diameter:	2"
Depth to Product (DTP): -		Screened Interval:	
Free Product Thickness: -		Water Column Height:	
Well Depth (DTB): 10.96		Pump Inlet Depth (bTOC)	
Water quality meter make and model: In-Situ AquaTROLL 600			Other (write in)

Monitoring Well Information

Depth to Water (DTW):	4.61	Well Diameter:	2"	Purging Method (Check box):	
Depth to Product (DTP):	-	Screened Interval:		Peristaltic Pump	X
Free Product Thickness:	-	Water Column Height:		Submersible Pump	
Well Depth (DTB):	10.96	Pump Inlet Depth (bTOC)		Bailer	
Water quality meter make and model: In-Situ AquaTROLL 600				Other (write in)	

**Water Quality Parameter Measurements**

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ±0.1	Temp. (°C) ±0.5	Conductivity (mS/cm) ±3%	DO (mg/L) ±10%	Turbidity (NTU) ±10%	ORP (mV) ±10 mv
3	5.09	150	7.10	14.32	0.36	0.79	14.42	-97.9
6	5.66	150	7.15	13.64	0.33	0.77	8.13	-104.7
7	6.29	150	7.19	12.42	0.36	0.54	9.14	-117.0
12	6.59	120	7.18	12.81	0.35	0.30	8.93	-127.8
15	6.64	120	7.15	12.83	0.36	0.32	9.32	-118.8
18	7.15	120	7.12	12.80	0.36	0.34	13.30	-111.5
21	7.46	120	7.16	12.79	0.40	0.35	11.82	-114.4
24	7.71	120	7.22	13.06	0.47	1.24	7.47	-91.1
27	7.95	120	7.54	12.19	0.61	0.37	2.01	-117.5
30	8.32	120	7.58	12.03	0.61	0.29	3.42	-116.7
33	8.47	100	7.46	12.23	0.53	0.33	10.23	-103.5
36	8.79	100	7.41	12.20	0.53	0.59	9.31	-84.2
39	8.89	100	7.42	12.25	0.53	0.76	10.20	-75.5
42	9.24	100	7.42	12.24	0.52	1.05	11.42	-66.3
45	9.56	100	7.42	12.15	0.50	1.77	11.95	-47.8

**Sample Information**

Sample ID:	MW-17	Sample Date/Time:	20240430/0910	Total mL Purged:	2.25
Duplicate Sample Collected (Y/N)	-	Duplicate Sample ID:	-	Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	-	Split Sample ID:	-		
MS/MSD Sample Collected (Y/N)	-	MS/MSD Sample ID:	-		
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments: 0816 Start purge  
 JW jel \* Purge rate calc was off, corrected.  
 3.0





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW-18	Date:	4/30/24
Client:	Marathon Pipe Line, LLC	Weather:	Sunny 70°
Project:	Putnam Response	Sampler:	Joey DeVivo AS

Monitoring Well Information

Depth to Water (DTW):	8.35	Well Diameter:	2"	Purging Method (Check box):	
Depth to Product (DTP):	—	Screened Interval:		Peristaltic Pump	X
Free Product Thickness:	—	Water Column Height:		Submersible Pump	
Well Depth (DTB):	14.73	Pump Inlet Depth (bTOC)		Bailer	
Water quality meter make and model: In-Situ AquaTROLL 600				Other (write in)	

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	8.59	150	7.51	14.28	0.77	0.51	0.61	-135.8
6	8.83	150	7.53	14.15	0.77	0.27	0.00	-139.1
9	9.10	150	7.54	13.91	0.77	0.29	4.35	-139.4
12	9.42	150	7.53	13.79	0.77	0.25	0.94	-138.9
15	9.43	100	7.52	14.73	0.77	0.31	0.00	-139.1
18	9.42	100	7.51	14.76	0.77	0.26	0.00	-134.7
21	9.42	100	7.49	15.07	0.77	0.33	0.42	-133.4
24	9.42	100	7.47	14.99	0.77	0.50	2.81	-133.9
27	9.42	100	7.43	15.16	0.77	0.20	4.85	-131.4
30	9.42	100	7.41	15.10	0.77	0.15	4.37	-128.0
33	9.42	100	7.40	14.72	0.77	0.18	4.75	-126.5
36	9.42	100	7.40	14.37	0.78	0.11	2.14	-126.8
39	9.42	100	7.39	14.29	0.78	0.19	1.83	-125.2
42	9.42	100	7.39	14.19	0.77	0.20	0.75	-125.3
45	9.42	100	7.39	14.35	0.77	0.16	0.65	-126.1

#### Sample Information

Sample ID:	MN-18	Sample Date/Time:	4/30/24 1245	Total mL Purged:	1.25
Duplicate Sample Collected (Y/N)	N	Duplicate Sample ID:	—	Did Well Dewater? (Y/N)	N
Split Sample Collected (Y/N)	N	Split Sample ID:	—		
MS/MSD Sample Collected (Y/N)	N	MS/MSD Sample ID:	—		
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>					
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type	
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA	

Comments: Drawdown despite lowest possible flow rate





### MONITORING WELL DATA SHEET - LOW FLOW SAMPLING

Well I.D.:	MW- 19	Date:	20240430
Client:	Marathon Pipe Line, LLC	Weather:	FS Sunny
Project:	Putnam Response	Sampler:	Joey DeVivo JB
Depth to Water (DTW):	4.28	Well Diameter:	2"
Depth to Product (DTP):	-	Screened Interval:	
Free Product Thickness:	-	Water Column Height:	
Well Depth (DTB):	9.31	Pump Inlet Depth (bTOC)	
Water quality meter make and model: In-Situ AquaTROLL 600			Purging Method (Check box):
			Peristaltic Pump <input checked="" type="checkbox"/>
			Submersible Pump <input type="checkbox"/>
			Bailer <input type="checkbox"/>
			Other (write in) <input type="checkbox"/>

Monitoring Well Information

#### Water Quality Parameter Measurements

Time (3 min increments, 45 min max)	DTW (ft. BTOC)	Purge Rate (mL/min)	pH (std units) ± 0.1	Temp. (°C) ± 0.5	Conductivity (mS/cm) ± 3%	DO (mg/L) ± 10%	Turbidity (NTU) ± 10%	ORP (mV) ± 10 mv
3	4.28	130	7.29	13.09	0.74	0.52	0.99	41.2
6	4.28	130	7.29	12.90	0.74	0.51	0.00	43.5
9	4.28	130	7.28	13.00	0.73	1.53	0.00	49.0
12	4.28	130	7.28	13.23	0.73	2.71	0.00	58.7
15	4.28	130	7.28	13.41	0.73	2.56	0.00	65.4
18	4.28	130	7.27	13.71	0.73	2.29	0.00	69.1
21	4.28	130	7.27	13.47	0.73	2.11	0.00	72.3
24	4.28	130	7.27	13.56	0.73	1.95	0.00	74.5
27	4.28	130	7.27	13.40	0.73	1.84	0.00	76.5
30								
33								
36								
39								
42								

#### Sample Information

Sample ID:	mw-19		Sample Date/Time:	20240430/1615		Total mL Purged:	2.0
Duplicate Sample Collected (Y/N)	-	Duplicate Sample ID:	-	Did Well Dewater? (Y/N)	N		
Split Sample Collected (Y/N)	-	Split Sample ID:	-				
MS/MSD Sample Collected (Y/N)	-	MS/MSD Sample ID:	-				
Sampling method (Check one): Soda Straw <input checked="" type="checkbox"/> / Bailer Grab <input type="checkbox"/> / Tubing Through Pump (not preferred) <input type="checkbox"/>							
# of containers/type	Preservative	Analysis/Method	Field Filtered	Filter Size/Type			
3, 40-mL VOAs	HCL	VOCs by 8260 MSV Indiana Suite	no	NA			

Comments:

2.5

## Appendix B– Groundwater Laboratory Analytical Data



May 16, 2024

Mr. Jason Phillips  
Antea Group  
40000 Grand River  
Suite 504  
Novi, MI 48375

RE: Project: MPL Putnam  
Pace Project No.: 50371968

Dear Mr. Phillips:

Enclosed are the analytical results for sample(s) received by the laboratory on May 01, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Melville
- Pace Analytical Services - New Orleans

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

Sincerely,

Amanda Gaines  
amanda.gaines@pacelabs.com  
(317)228-3100  
Project Manager

Enclosures

cc: AGDataView  
Blake Ford, Antea Group



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: MPL Putnam

Pace Project No.: 50371968

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#### Pace Analytical Services New Orleans

Florida Department of Health (NELAC): E87595

Illinois Environmental Protection Agency: 2000662023-7

Kansas Department of Health and Environment (NELAC): E-10266

Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006

Texas Commission on Env. Quality (NELAC): T104704405-23-18

U.S. Dept. of Agriculture Foreign Soil Import: 525-23-117-89728

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Washington Dept of Ecology #: C1081

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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#### Pace Analytical Services Long Island

575 Broad Hollow Rd, Melville, NY 11747

Connecticut Certification #: PH-0435

Delaware Certification # NY 10478

Maryland Certification #: 208

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

New Jersey Certification #: NY158

New York Certification #: 10478 Primary Accrediting Body

Pennsylvania Certification #: 68-00350

Rhode Island Certification #: LAO00340

Virginia Certification # 460302

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### SAMPLE SUMMARY

Project: MPL Putnam

Pace Project No.: 50371968

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50371968001	MW-01	Water	04/30/24 15:40	05/01/24 14:00
50371968002	MW-02	Water	04/30/24 08:00	05/01/24 14:00
50371968003	MW-03	Water	04/30/24 08:52	05/01/24 14:00
50371968004	MW-04	Water	04/30/24 11:05	05/01/24 14:00
50371968005	MW-05	Water	04/30/24 14:10	05/01/24 14:00
50371968006	MW-06	Water	05/01/24 07:52	05/01/24 14:00
50371968007	MW-07	Water	04/30/24 15:20	05/01/24 14:00
50371968008	MW-08	Water	04/30/24 14:18	05/01/24 14:00
50371968009	MW-09	Water	04/30/24 10:15	05/01/24 14:00
50371968010	MW-10	Water	04/30/24 11:22	05/01/24 14:00
50371968011	MW-11	Water	04/30/24 12:50	05/01/24 14:00
50371968012	MW-12	Water	04/30/24 17:17	05/01/24 14:00
50371968013	MW-13	Water	05/01/24 09:10	05/01/24 14:00
50371968014	MW-14	Water	05/01/24 08:58	05/01/24 14:00
50371968015	MW-15	Water	04/30/24 10:00	05/01/24 14:00
50371968016	MW-16	Water	05/01/24 07:45	05/01/24 14:00
50371968017	MW-17	Water	04/30/24 09:10	05/01/24 14:00
50371968018	MW-18	Water	04/30/24 12:45	05/01/24 14:00
50371968019	MW-19	Water	04/30/24 16:45	05/01/24 14:00
50371968020	DUP-01	Water	04/30/24 15:57	05/01/24 14:00
50371968021	Trip Blank	Water	05/01/24 08:00	05/01/24 14:00

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### SAMPLE ANALYTE COUNT

Project: MPL Putnam

Pace Project No.: 50371968

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50371968001	MW-01	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968002	MW-02	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968003	MW-03	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968004	MW-04	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968005	MW-05	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968006	MW-06	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968007	MW-07	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968008	MW-08	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968009	MW-09	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968010	MW-10	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968011	MW-11	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968012	MW-12	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968013	MW-13	EPA 8260B	JRP	4	PASI-N

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### SAMPLE ANALYTE COUNT

Project: MPL Putnam

Pace Project No.: 50371968

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50371968014	MW-14	EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
		EPA 8260B	JRP	4	PASI-N
50371968015	MW-15	EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
		EPA 8260B	JRP	4	PASI-N
50371968016	MW-16	EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
		EPA 8260B	JRP	4	PASI-N
50371968017	MW-17	EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
		EPA 8260B	JRP	4	PASI-N
50371968018	MW-18	EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
		EPA 8260B	JRP	4	PASI-N
50371968019	MW-19	EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
		EPA 8260B	JRP	4	PASI-N
50371968020	DUP-01	EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
		EPA 8260B	JRP	4	PASI-N
50371968021	Trip Blank	EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
		EPA 8260B	JRP	4	PASI-N

PASI-I = Pace Analytical Services - Indianapolis

PASI-L = Pace Analytical Services - Melville

PASI-N = Pace Analytical Services - New Orleans

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-01	Lab ID: 50371968001	Collected: 04/30/24 15:40	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville						
n-Nonane	ND	ug/L	4.0	1		05/03/24 14:27	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	99	%	80-120	1		05/03/24 14:27	17060-07-0	
4-Bromofluorobenzene (S)	102	%	80-120	1		05/03/24 14:27	460-00-4	
Toluene-d8 (S)	90	%	80-120	1		05/03/24 14:27	2037-26-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260B Pace Analytical Services - New Orleans						
n-Heptane	ND	ug/L	5.0	1		05/13/24 09:43	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 09:43	2037-26-5	M5
4-Bromofluorobenzene (S)	101	%	78-121	1		05/13/24 09:43	460-00-4	M5
Dibromofluoromethane (S)	97	%	74-128	1		05/13/24 09:43	1868-53-7	M5
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis						
Acetone	ND	ug/L	20.0	1		05/03/24 06:55	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/03/24 06:55	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/03/24 06:55	107-13-1	
Benzene	ND	ug/L	1.0	1		05/03/24 06:55	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/03/24 06:55	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/03/24 06:55	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/03/24 06:55	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/03/24 06:55	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/03/24 06:55	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/03/24 06:55	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/03/24 06:55	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/03/24 06:55	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/03/24 06:55	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/03/24 06:55	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/03/24 06:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/03/24 06:55	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/03/24 06:55	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/03/24 06:55	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/03/24 06:55	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/03/24 06:55	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/03/24 06:55	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/03/24 06:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/03/24 06:55	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/03/24 06:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/03/24 06:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/03/24 06:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/03/24 06:55	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/03/24 06:55	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/03/24 06:55	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/03/24 06:55	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-01	Lab ID: 50371968001	Collected: 04/30/24 15:40	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/03/24 06:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/03/24 06:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/03/24 06:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/03/24 06:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/03/24 06:55	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/03/24 06:55	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/03/24 06:55	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/03/24 06:55	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/03/24 06:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/03/24 06:55	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/03/24 06:55	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/03/24 06:55	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/03/24 06:55	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/03/24 06:55	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/03/24 06:55	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/03/24 06:55	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/03/24 06:55	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/03/24 06:55	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/03/24 06:55	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/03/24 06:55	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/03/24 06:55	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/03/24 06:55	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/03/24 06:55	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/03/24 06:55	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/03/24 06:55	103-65-1	
Styrene	ND	ug/L	1.0	1		05/03/24 06:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/03/24 06:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/03/24 06:55	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/03/24 06:55	127-18-4	
Toluene	ND	ug/L	1.0	1		05/03/24 06:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/03/24 06:55	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/03/24 06:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/03/24 06:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/03/24 06:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/03/24 06:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/03/24 06:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/03/24 06:55	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/03/24 06:55	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/03/24 06:55	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/03/24 06:55	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/03/24 06:55	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/03/24 06:55	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	99	%.	79-124	1		05/03/24 06:55	460-00-4	
Dibromofluoromethane (S)	105	%.	82-128	1		05/03/24 06:55	1868-53-7	
Toluene-d8 (S)	95	%.	73-122	1		05/03/24 06:55	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-02	Lab ID: 50371968002	Collected: 04/30/24 08:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 14:47	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	99	%	80-120	1		05/03/24 14:47	17060-07-0	
4-Bromofluorobenzene (S)	95	%	80-120	1		05/03/24 14:47	460-00-4	
Toluene-d8 (S)	86	%	80-120	1		05/03/24 14:47	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 10:01	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 10:01	2037-26-5	M5
4-Bromofluorobenzene (S)	121	%	78-121	1		05/13/24 10:01	460-00-4	M5
Dibromofluoromethane (S)	98	%	74-128	1		05/13/24 10:01	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/03/24 07:51	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/03/24 07:51	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/03/24 07:51	107-13-1	
Benzene	ND	ug/L	1.0	1		05/03/24 07:51	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/03/24 07:51	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/03/24 07:51	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/03/24 07:51	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/03/24 07:51	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/03/24 07:51	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/03/24 07:51	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/03/24 07:51	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/03/24 07:51	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/03/24 07:51	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/03/24 07:51	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/03/24 07:51	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/03/24 07:51	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/03/24 07:51	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/03/24 07:51	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/03/24 07:51	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/03/24 07:51	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/03/24 07:51	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/03/24 07:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/03/24 07:51	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/03/24 07:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/03/24 07:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/03/24 07:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/03/24 07:51	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/03/24 07:51	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/03/24 07:51	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/03/24 07:51	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-02	Lab ID: 50371968002	Collected: 04/30/24 08:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/03/24 07:51	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/03/24 07:51	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/03/24 07:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/03/24 07:51	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/03/24 07:51	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/03/24 07:51	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/03/24 07:51	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/03/24 07:51	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/03/24 07:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/03/24 07:51	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/03/24 07:51	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/03/24 07:51	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/03/24 07:51	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/03/24 07:51	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/03/24 07:51	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/03/24 07:51	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/03/24 07:51	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/03/24 07:51	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/03/24 07:51	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/03/24 07:51	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/03/24 07:51	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/03/24 07:51	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/03/24 07:51	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/03/24 07:51	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/03/24 07:51	103-65-1	
Styrene	ND	ug/L	1.0	1		05/03/24 07:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/03/24 07:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/03/24 07:51	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/03/24 07:51	127-18-4	
Toluene	ND	ug/L	1.0	1		05/03/24 07:51	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/03/24 07:51	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/03/24 07:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/03/24 07:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/03/24 07:51	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/03/24 07:51	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/03/24 07:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/03/24 07:51	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/03/24 07:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/03/24 07:51	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/03/24 07:51	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/03/24 07:51	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/03/24 07:51	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	99	%.	79-124	1		05/03/24 07:51	460-00-4	
Dibromofluoromethane (S)	105	%.	82-128	1		05/03/24 07:51	1868-53-7	
Toluene-d8 (S)	95	%.	73-122	1		05/03/24 07:51	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-03	Lab ID: 50371968003	Collected: 04/30/24 08:52	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 15:06	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	97	%	80-120	1		05/03/24 15:06	17060-07-0	
4-Bromofluorobenzene (S)	99	%	80-120	1		05/03/24 15:06	460-00-4	
Toluene-d8 (S)	88	%	80-120	1		05/03/24 15:06	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	10.9	ug/L	5.0	1		05/13/24 10:20	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 10:20	2037-26-5	M5
4-Bromofluorobenzene (S)	116	%	78-121	1		05/13/24 10:20	460-00-4	M5
Dibromofluoromethane (S)	96	%	74-128	1		05/13/24 10:20	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 16:02	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 16:02	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 16:02	107-13-1	
Benzene	96.3	ug/L	1.0	1		05/08/24 16:02	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 16:02	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 16:02	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 16:02	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 16:02	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 16:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 16:02	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:02	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:02	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:02	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 16:02	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 16:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 16:02	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 16:02	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 16:02	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 16:02	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 16:02	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 16:02	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 16:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 16:02	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 16:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:02	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 16:02	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 16:02	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 16:02	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-03	Lab ID: 50371968003	Collected: 04/30/24 08:52	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 16:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:02	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:02	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:02	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:02	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:02	10061-02-6	
Ethylbenzene	<b>3.3</b>	ug/L	1.0	1		05/08/24 16:02	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 16:02	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 16:02	87-68-3	
n-Hexane	<b>162</b>	ug/L	5.0	1		05/08/24 16:02	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 16:02	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 16:02	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 16:02	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 16:02	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 16:02	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 16:02	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 16:02	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 16:02	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 16:02	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 16:02	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 16:02	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 16:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 16:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 16:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 16:02	127-18-4	
Toluene	<b>10.1</b>	ug/L	1.0	1		05/08/24 16:02	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:02	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 16:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 16:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 16:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 16:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 16:02	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 16:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 16:02	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 16:02	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 16:02	75-01-4	
Xylene (Total)	<b>5.6</b>	ug/L	3.0	1		05/08/24 16:02	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98	%.	79-124	1		05/08/24 16:02	460-00-4	
Dibromofluoromethane (S)	102	%.	82-128	1		05/08/24 16:02	1868-53-7	
Toluene-d8 (S)	100	%.	73-122	1		05/08/24 16:02	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-04	Lab ID: 50371968004	Collected: 04/30/24 11:05	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 15:26	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		05/03/24 15:26	17060-07-0	
4-Bromofluorobenzene (S)	99	%	80-120	1		05/03/24 15:26	460-00-4	
Toluene-d8 (S)	88	%	80-120	1		05/03/24 15:26	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 10:38	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 10:38	2037-26-5	M5
4-Bromofluorobenzene (S)	102	%	78-121	1		05/13/24 10:38	460-00-4	M5
Dibromofluoromethane (S)	96	%	74-128	1		05/13/24 10:38	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 16:30	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 16:30	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 16:30	107-13-1	
Benzene	18.6	ug/L	1.0	1		05/08/24 16:30	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 16:30	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 16:30	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 16:30	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 16:30	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 16:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 16:30	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:30	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:30	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:30	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 16:30	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 16:30	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 16:30	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 16:30	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 16:30	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 16:30	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 16:30	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 16:30	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 16:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 16:30	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 16:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:30	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 16:30	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 16:30	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 16:30	75-34-3	

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**ANALYTICAL RESULTS**

Project: MPL Putnam  
 Pace Project No.: 50371968

**Sample: MW-04**      **Lab ID: 50371968004**      Collected: 04/30/24 11:05      Received: 05/01/24 14:00      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 16:30	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:30	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:30	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:30	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:30	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 16:30	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 16:30	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 16:30	87-68-3	
n-Hexane	<b>16.5</b>	ug/L	5.0	1		05/08/24 16:30	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 16:30	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 16:30	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 16:30	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 16:30	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 16:30	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 16:30	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 16:30	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 16:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 16:30	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 16:30	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 16:30	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 16:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 16:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 16:30	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 16:30	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 16:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:30	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 16:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 16:30	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 16:30	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 16:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 16:30	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 16:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 16:30	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 16:30	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 16:30	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 16:30	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	100	%.	79-124	1		05/08/24 16:30	460-00-4	
Dibromofluoromethane (S)	104	%.	82-128	1		05/08/24 16:30	1868-53-7	
Toluene-d8 (S)	100	%.	73-122	1		05/08/24 16:30	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-05	Lab ID: 50371968005	Collected: 04/30/24 14:10	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 15:46	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	99	%	80-120	1		05/03/24 15:46	17060-07-0	
4-Bromofluorobenzene (S)	96	%	80-120	1		05/03/24 15:46	460-00-4	
Toluene-d8 (S)	87	%	80-120	1		05/03/24 15:46	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 10:56	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	102	%	76-124	1		05/13/24 10:56	2037-26-5	M5
4-Bromofluorobenzene (S)	102	%	78-121	1		05/13/24 10:56	460-00-4	M5
Dibromofluoromethane (S)	97	%	74-128	1		05/13/24 10:56	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 16:58	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 16:58	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 16:58	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 16:58	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 16:58	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 16:58	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 16:58	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 16:58	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 16:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 16:58	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:58	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:58	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:58	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 16:58	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 16:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 16:58	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 16:58	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 16:58	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 16:58	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 16:58	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 16:58	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 16:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 16:58	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 16:58	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:58	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 16:58	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 16:58	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 16:58	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-05	Lab ID: 50371968005	Collected: 04/30/24 14:10	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 16:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:58	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:58	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:58	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:58	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:58	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 16:58	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 16:58	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 16:58	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 16:58	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 16:58	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 16:58	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 16:58	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 16:58	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 16:58	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 16:58	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 16:58	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 16:58	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 16:58	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 16:58	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 16:58	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 16:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 16:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 16:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 16:58	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 16:58	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:58	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 16:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 16:58	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 16:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 16:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 16:58	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 16:58	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 16:58	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 16:58	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 16:58	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 16:58	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	99	%.	79-124	1		05/08/24 16:58	460-00-4	
Dibromofluoromethane (S)	106	%.	82-128	1		05/08/24 16:58	1868-53-7	
Toluene-d8 (S)	100	%.	73-122	1		05/08/24 16:58	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-06	Lab ID: 50371968006	Collected: 05/01/24 07:52	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 16:06	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	97	%	80-120	1		05/03/24 16:06	17060-07-0	
4-Bromofluorobenzene (S)	99	%	80-120	1		05/03/24 16:06	460-00-4	
Toluene-d8 (S)	89	%	80-120	1		05/03/24 16:06	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 11:14	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 11:14	2037-26-5	M5
4-Bromofluorobenzene (S)	101	%	78-121	1		05/13/24 11:14	460-00-4	M5
Dibromofluoromethane (S)	98	%	74-128	1		05/13/24 11:14	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 17:26	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 17:26	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 17:26	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 17:26	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 17:26	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 17:26	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 17:26	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 17:26	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 17:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 17:26	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:26	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:26	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:26	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 17:26	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 17:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 17:26	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 17:26	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 17:26	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 17:26	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 17:26	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 17:26	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 17:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 17:26	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 17:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:26	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 17:26	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 17:26	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 17:26	75-34-3	

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**ANALYTICAL RESULTS**

Project: MPL Putnam  
 Pace Project No.: 50371968

**Sample: MW-06**      **Lab ID: 50371968006**      Collected: 05/01/24 07:52      Received: 05/01/24 14:00      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 17:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:26	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:26	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:26	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:26	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 17:26	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 17:26	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 17:26	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 17:26	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 17:26	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 17:26	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 17:26	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 17:26	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 17:26	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 17:26	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 17:26	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 17:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 17:26	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 17:26	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 17:26	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 17:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 17:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 17:26	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 17:26	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 17:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 17:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 17:26	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 17:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 17:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 17:26	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 17:26	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 17:26	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 17:26	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 17:26	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 17:26	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98	%.	79-124	1		05/08/24 17:26	460-00-4	
Dibromofluoromethane (S)	105	%.	82-128	1		05/08/24 17:26	1868-53-7	
Toluene-d8 (S)	99	%.	73-122	1		05/08/24 17:26	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-07	Lab ID: 50371968007	Collected: 04/30/24 15:20	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 16:26	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		05/03/24 16:26	17060-07-0	
4-Bromofluorobenzene (S)	98	%	80-120	1		05/03/24 16:26	460-00-4	
Toluene-d8 (S)	87	%	80-120	1		05/03/24 16:26	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 11:32	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 11:32	2037-26-5	M5
4-Bromofluorobenzene (S)	99	%	78-121	1		05/13/24 11:32	460-00-4	M5
Dibromofluoromethane (S)	99	%	74-128	1		05/13/24 11:32	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 17:54	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 17:54	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 17:54	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 17:54	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 17:54	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 17:54	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 17:54	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 17:54	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 17:54	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 17:54	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:54	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:54	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:54	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 17:54	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 17:54	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 17:54	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 17:54	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 17:54	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 17:54	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 17:54	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 17:54	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 17:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 17:54	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 17:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:54	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 17:54	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 17:54	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 17:54	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-07	Lab ID: 50371968007	Collected: 04/30/24 15:20	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 17:54	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:54	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:54	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:54	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:54	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:54	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 17:54	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 17:54	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 17:54	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 17:54	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 17:54	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 17:54	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 17:54	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 17:54	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 17:54	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 17:54	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 17:54	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 17:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 17:54	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 17:54	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 17:54	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 17:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 17:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 17:54	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 17:54	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 17:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:54	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 17:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 17:54	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 17:54	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 17:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 17:54	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 17:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 17:54	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 17:54	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 17:54	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 17:54	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	100	%.	79-124	1		05/08/24 17:54	460-00-4	
Dibromofluoromethane (S)	105	%.	82-128	1		05/08/24 17:54	1868-53-7	
Toluene-d8 (S)	99	%.	73-122	1		05/08/24 17:54	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-08	Lab ID: 50371968008	Collected: 04/30/24 14:18	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville						
n-Nonane	ND	ug/L	4.0	1		05/03/24 16:45	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	99	%	80-120	1		05/03/24 16:45	17060-07-0	
4-Bromofluorobenzene (S)	98	%	80-120	1		05/03/24 16:45	460-00-4	
Toluene-d8 (S)	87	%	80-120	1		05/03/24 16:45	2037-26-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260B Pace Analytical Services - New Orleans						
n-Heptane	ND	ug/L	5.0	1		05/13/24 11:50	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 11:50	2037-26-5	M5
4-Bromofluorobenzene (S)	103	%	78-121	1		05/13/24 11:50	460-00-4	M5
Dibromofluoromethane (S)	96	%	74-128	1		05/13/24 11:50	1868-53-7	M5
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis						
Acetone	ND	ug/L	20.0	1		05/08/24 18:22	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 18:22	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 18:22	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 18:22	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 18:22	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 18:22	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 18:22	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 18:22	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 18:22	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 18:22	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 18:22	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 18:22	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 18:22	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 18:22	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 18:22	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 18:22	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 18:22	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 18:22	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 18:22	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 18:22	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 18:22	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 18:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 18:22	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 18:22	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:22	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 18:22	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 18:22	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 18:22	75-34-3	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MPL Putnam  
 Pace Project No.: 50371968

Sample: MW-08 Lab ID: 50371968008 Collected: 04/30/24 14:18 Received: 05/01/24 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 18:22	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 18:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 18:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 18:22	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 18:22	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 18:22	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 18:22	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 18:22	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 18:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 18:22	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 18:22	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 18:22	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 18:22	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 18:22	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 18:22	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 18:22	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 18:22	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 18:22	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 18:22	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 18:22	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 18:22	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 18:22	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 18:22	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 18:22	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 18:22	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 18:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 18:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 18:22	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 18:22	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 18:22	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:22	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:22	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 18:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 18:22	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 18:22	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 18:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 18:22	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 18:22	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 18:22	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 18:22	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 18:22	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 18:22	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	101	%.	79-124	1		05/08/24 18:22	460-00-4	
Dibromofluoromethane (S)	105	%.	82-128	1		05/08/24 18:22	1868-53-7	
Toluene-d8 (S)	99	%.	73-122	1		05/08/24 18:22	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-09	Lab ID: 50371968009	Collected: 04/30/24 10:15	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	4.2	ug/L	4.0	1		05/03/24 17:05	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	102	%	80-120	1		05/03/24 17:05	17060-07-0	
4-Bromofluorobenzene (S)	102	%	80-120	1		05/03/24 17:05	460-00-4	
Toluene-d8 (S)	90	%	80-120	1		05/03/24 17:05	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	46.1	ug/L	5.0	1		05/13/24 12:08	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	76-124	1		05/13/24 12:08	2037-26-5	M5
4-Bromofluorobenzene (S)	102	%	78-121	1		05/13/24 12:08	460-00-4	M5
Dibromofluoromethane (S)	97	%	74-128	1		05/13/24 12:08	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	100	5		05/08/24 18:50	67-64-1	
Acrolein	ND	ug/L	100	5		05/08/24 18:50	107-02-8	
Acrylonitrile	ND	ug/L	500	5		05/08/24 18:50	107-13-1	
Benzene	763	ug/L	5.0	5		05/08/24 18:50	71-43-2	
Bromobenzene	ND	ug/L	5.0	5		05/08/24 18:50	108-86-1	
Bromochloromethane	ND	ug/L	5.0	5		05/08/24 18:50	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	5		05/08/24 18:50	75-27-4	
Bromoform	ND	ug/L	5.0	5		05/08/24 18:50	75-25-2	
Bromomethane	ND	ug/L	25.0	5		05/08/24 18:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	5		05/08/24 18:50	78-93-3	
n-Butylbenzene	ND	ug/L	5.0	5		05/08/24 18:50	104-51-8	
sec-Butylbenzene	ND	ug/L	5.0	5		05/08/24 18:50	135-98-8	
tert-Butylbenzene	ND	ug/L	5.0	5		05/08/24 18:50	98-06-6	
Carbon disulfide	ND	ug/L	25.0	5		05/08/24 18:50	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	5		05/08/24 18:50	56-23-5	
Chlorobenzene	ND	ug/L	5.0	5		05/08/24 18:50	108-90-7	
Chloroethane	ND	ug/L	10.0	5		05/08/24 18:50	75-00-3	
Chloroform	ND	ug/L	5.0	5		05/08/24 18:50	67-66-3	
Chloromethane	ND	ug/L	10.0	5		05/08/24 18:50	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	5		05/08/24 18:50	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	5		05/08/24 18:50	106-43-4	
Dibromochloromethane	ND	ug/L	5.0	5		05/08/24 18:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	5		05/08/24 18:50	106-93-4	
Dibromomethane	ND	ug/L	5.0	5		05/08/24 18:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	5		05/08/24 18:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	5		05/08/24 18:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	5		05/08/24 18:50	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	500	5		05/08/24 18:50	110-57-6	
Dichlorodifluoromethane	ND	ug/L	10.0	5		05/08/24 18:50	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	5		05/08/24 18:50	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-09	Lab ID: 50371968009	Collected: 04/30/24 10:15	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	5.0	5		05/08/24 18:50	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	5		05/08/24 18:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	5		05/08/24 18:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	5		05/08/24 18:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	5		05/08/24 18:50	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	5		05/08/24 18:50	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	5		05/08/24 18:50	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	5		05/08/24 18:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	5.0	5		05/08/24 18:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	5		05/08/24 18:50	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	5		05/08/24 18:50	100-41-4	
Ethyl methacrylate	ND	ug/L	100	5		05/08/24 18:50	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	5		05/08/24 18:50	87-68-3	
n-Hexane	419	ug/L	25.0	5		05/08/24 18:50	110-54-3	
2-Hexanone	195	ug/L	100	5		05/08/24 18:50	591-78-6	
Iodomethane	ND	ug/L	25.0	5		05/08/24 18:50	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	5		05/08/24 18:50	98-82-8	
p-Isopropyltoluene	ND	ug/L	5.0	5		05/08/24 18:50	99-87-6	
Methylene Chloride	ND	ug/L	25.0	5		05/08/24 18:50	75-09-2	
1-Methylnaphthalene	ND	ug/L	100	5		05/08/24 18:50	90-12-0	
2-Methylnaphthalene	ND	ug/L	100	5		05/08/24 18:50	91-57-6	
4-Methyl-2-pentanone (MIBK)	156	ug/L	100	5		05/08/24 18:50	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	20.0	5		05/08/24 18:50	1634-04-4	
Naphthalene	ND	ug/L	5.0	5		05/08/24 18:50	91-20-3	
n-Propylbenzene	ND	ug/L	5.0	5		05/08/24 18:50	103-65-1	
Styrene	ND	ug/L	5.0	5		05/08/24 18:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	5		05/08/24 18:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		05/08/24 18:50	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	5		05/08/24 18:50	127-18-4	
Toluene	387	ug/L	5.0	5		05/08/24 18:50	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	5		05/08/24 18:50	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	5		05/08/24 18:50	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	5		05/08/24 18:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	5		05/08/24 18:50	79-00-5	
Trichloroethene	ND	ug/L	5.0	5		05/08/24 18:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	10.0	5		05/08/24 18:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	5		05/08/24 18:50	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	25.0	5		05/08/24 18:50	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	25.0	5		05/08/24 18:50	108-67-8	
Vinyl acetate	ND	ug/L	100	5		05/08/24 18:50	108-05-4	L1
Vinyl chloride	ND	ug/L	5.0	5		05/08/24 18:50	75-01-4	
Xylene (Total)	144	ug/L	15.0	5		05/08/24 18:50	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	102	%.	79-124	5		05/08/24 18:50	460-00-4	
Dibromofluoromethane (S)	101	%.	82-128	5		05/08/24 18:50	1868-53-7	
Toluene-d8 (S)	101	%.	73-122	5		05/08/24 18:50	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-10	Lab ID: 50371968010	Collected: 04/30/24 11:22	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 17:25	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	102	%	80-120	1		05/03/24 17:25	17060-07-0	
4-Bromofluorobenzene (S)	99	%	80-120	1		05/03/24 17:25	460-00-4	
Toluene-d8 (S)	88	%	80-120	1		05/03/24 17:25	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 12:26	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	76-124	1		05/13/24 12:26	2037-26-5	M5
4-Bromofluorobenzene (S)	101	%	78-121	1		05/13/24 12:26	460-00-4	M5
Dibromofluoromethane (S)	97	%	74-128	1		05/13/24 12:26	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 19:18	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 19:18	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 19:18	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 19:18	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 19:18	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 19:18	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 19:18	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 19:18	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 19:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 19:18	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 19:18	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 19:18	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 19:18	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 19:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 19:18	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 19:18	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 19:18	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 19:18	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 19:18	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 19:18	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 19:18	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 19:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 19:18	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 19:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:18	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 19:18	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 19:18	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 19:18	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-10	Lab ID: 50371968010	Collected: 04/30/24 11:22	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260						
		Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 19:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 19:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 19:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 19:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 19:18	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 19:18	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 19:18	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 19:18	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 19:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 19:18	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 19:18	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 19:18	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 19:18	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 19:18	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 19:18	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 19:18	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 19:18	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 19:18	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 19:18	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 19:18	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 19:18	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 19:18	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 19:18	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 19:18	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 19:18	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 19:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 19:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 19:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 19:18	127-18-4	
Toluene	3.0	ug/L	1.0	1		05/08/24 19:18	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:18	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:18	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 19:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 19:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 19:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 19:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 19:18	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 19:18	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 19:18	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 19:18	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 19:18	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 19:18	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	100	%.	79-124	1		05/08/24 19:18	460-00-4	
Dibromofluoromethane (S)	106	%.	82-128	1		05/08/24 19:18	1868-53-7	
Toluene-d8 (S)	100	%.	73-122	1		05/08/24 19:18	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-11	Lab ID: 50371968011	Collected: 04/30/24 12:50	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville						
n-Nonane	ND	ug/L	4.0	1		05/03/24 17:45	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	104	%	80-120	1		05/03/24 17:45	17060-07-0	
4-Bromofluorobenzene (S)	100	%	80-120	1		05/03/24 17:45	460-00-4	
Toluene-d8 (S)	89	%	80-120	1		05/03/24 17:45	2037-26-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260B Pace Analytical Services - New Orleans						
n-Heptane	ND	ug/L	5.0	1		05/13/24 12:45	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 12:45	2037-26-5	M5
4-Bromofluorobenzene (S)	100	%	78-121	1		05/13/24 12:45	460-00-4	M5
Dibromofluoromethane (S)	96	%	74-128	1		05/13/24 12:45	1868-53-7	M5
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis						
Acetone	ND	ug/L	20.0	1		05/09/24 13:47	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/09/24 13:47	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/09/24 13:47	107-13-1	
Benzene	137	ug/L	1.0	1		05/09/24 13:47	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/09/24 13:47	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/09/24 13:47	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/09/24 13:47	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/09/24 13:47	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/09/24 13:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/09/24 13:47	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/09/24 13:47	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/09/24 13:47	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/09/24 13:47	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/09/24 13:47	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/09/24 13:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/09/24 13:47	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/09/24 13:47	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/09/24 13:47	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/09/24 13:47	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/09/24 13:47	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/09/24 13:47	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/09/24 13:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/09/24 13:47	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/09/24 13:47	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/09/24 13:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/09/24 13:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/09/24 13:47	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/09/24 13:47	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/09/24 13:47	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/09/24 13:47	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-11	Lab ID: 50371968011	Collected: 04/30/24 12:50	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/09/24 13:47	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/09/24 13:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/09/24 13:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/09/24 13:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/09/24 13:47	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/09/24 13:47	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/09/24 13:47	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/09/24 13:47	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/09/24 13:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/09/24 13:47	10061-02-6	
Ethylbenzene	11.7	ug/L	1.0	1		05/09/24 13:47	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/09/24 13:47	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/09/24 13:47	87-68-3	
n-Hexane	105	ug/L	50.0	10		05/09/24 14:15	110-54-3	C0,HS
2-Hexanone	ND	ug/L	20.0	1		05/09/24 13:47	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/09/24 13:47	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/09/24 13:47	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/09/24 13:47	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/09/24 13:47	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/09/24 13:47	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/09/24 13:47	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/09/24 13:47	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/09/24 13:47	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/09/24 13:47	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/09/24 13:47	103-65-1	
Styrene	ND	ug/L	1.0	1		05/09/24 13:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/09/24 13:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/09/24 13:47	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/09/24 13:47	127-18-4	
Toluene	29.2	ug/L	1.0	1		05/09/24 13:47	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/09/24 13:47	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/09/24 13:47	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/09/24 13:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/09/24 13:47	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/09/24 13:47	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/09/24 13:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/09/24 13:47	96-18-4	
1,2,4-Trimethylbenzene	5.6	ug/L	5.0	1		05/09/24 13:47	95-63-6	
1,3,5-Trimethylbenzene	5.3	ug/L	5.0	1		05/09/24 13:47	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/09/24 13:47	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/09/24 13:47	75-01-4	
Xylene (Total)	53.3	ug/L	3.0	1		05/09/24 13:47	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	102	%.	79-124	1		05/09/24 13:47	460-00-4	
Dibromofluoromethane (S)	82	%.	82-128	1		05/09/24 13:47	1868-53-7	
Toluene-d8 (S)	102	%.	73-122	1		05/09/24 13:47	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-12	Lab ID: 50371968012	Collected: 04/30/24 17:17	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>		Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville						
n-Nonane	ND	ug/L	4.0	1		05/03/24 18:05	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	102	%	80-120	1		05/03/24 18:05	17060-07-0	
4-Bromofluorobenzene (S)	101	%	80-120	1		05/03/24 18:05	460-00-4	
Toluene-d8 (S)	86	%	80-120	1		05/03/24 18:05	2037-26-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260B Pace Analytical Services - New Orleans						
n-Heptane	ND	ug/L	5.0	1		05/13/24 13:03	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	99	%	76-124	1		05/13/24 13:03	2037-26-5	M5
4-Bromofluorobenzene (S)	99	%	78-121	1		05/13/24 13:03	460-00-4	M5
Dibromofluoromethane (S)	96	%	74-128	1		05/13/24 13:03	1868-53-7	M5
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis						
Acetone	ND	ug/L	20.0	1		05/14/24 15:14	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/14/24 15:14	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/14/24 15:14	107-13-1	
Benzene	272	ug/L	1.0	1		05/14/24 15:14	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/14/24 15:14	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/14/24 15:14	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/14/24 15:14	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/14/24 15:14	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/14/24 15:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/14/24 15:14	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/14/24 15:14	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/14/24 15:14	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/14/24 15:14	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/14/24 15:14	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/14/24 15:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/14/24 15:14	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/14/24 15:14	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/14/24 15:14	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/14/24 15:14	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/14/24 15:14	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/14/24 15:14	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/14/24 15:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/14/24 15:14	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/14/24 15:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/14/24 15:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/14/24 15:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/14/24 15:14	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/14/24 15:14	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/14/24 15:14	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/14/24 15:14	75-34-3	

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-12	Lab ID: 50371968012	Collected: 04/30/24 17:17	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260						
		Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/14/24 15:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/14/24 15:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/14/24 15:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/14/24 15:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/14/24 15:14	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/14/24 15:14	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/14/24 15:14	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/14/24 15:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/14/24 15:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/14/24 15:14	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/14/24 15:14	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/14/24 15:14	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/14/24 15:14	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/14/24 15:14	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/14/24 15:14	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/14/24 15:14	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/14/24 15:14	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/14/24 15:14	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/14/24 15:14	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/14/24 15:14	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/14/24 15:14	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/14/24 15:14	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/14/24 15:14	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/14/24 15:14	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/14/24 15:14	103-65-1	
Styrene	ND	ug/L	1.0	1		05/14/24 15:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/14/24 15:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/14/24 15:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/14/24 15:14	127-18-4	
Toluene	3.4	ug/L	1.0	1		05/14/24 15:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/14/24 15:14	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/14/24 15:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/14/24 15:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/14/24 15:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/14/24 15:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/14/24 15:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/14/24 15:14	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/14/24 15:14	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/14/24 15:14	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/14/24 15:14	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/14/24 15:14	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/14/24 15:14	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	103	%.	79-124	1		05/14/24 15:14	460-00-4	HS
Dibromofluoromethane (S)	111	%.	82-128	1		05/14/24 15:14	1868-53-7	
Toluene-d8 (S)	98	%.	73-122	1		05/14/24 15:14	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-13	Lab ID: 50371968013	Collected: 05/01/24 09:10	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 18:24	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	103	%	80-120	1		05/03/24 18:24	17060-07-0	
4-Bromofluorobenzene (S)	97	%	80-120	1		05/03/24 18:24	460-00-4	
Toluene-d8 (S)	87	%	80-120	1		05/03/24 18:24	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	32.6	ug/L	5.0	1		05/13/24 13:22	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	102	%	76-124	1		05/13/24 13:22	2037-26-5	M5
4-Bromofluorobenzene (S)	120	%	78-121	1		05/13/24 13:22	460-00-4	M5
Dibromofluoromethane (S)	96	%	74-128	1		05/13/24 13:22	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/14/24 15:42	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/14/24 15:42	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/14/24 15:42	107-13-1	
Benzene	ND	ug/L	1.0	1		05/14/24 15:42	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/14/24 15:42	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/14/24 15:42	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/14/24 15:42	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/14/24 15:42	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/14/24 15:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/14/24 15:42	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/14/24 15:42	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/14/24 15:42	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/14/24 15:42	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/14/24 15:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/14/24 15:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/14/24 15:42	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/14/24 15:42	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/14/24 15:42	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/14/24 15:42	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/14/24 15:42	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/14/24 15:42	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/14/24 15:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/14/24 15:42	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/14/24 15:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/14/24 15:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/14/24 15:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/14/24 15:42	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/14/24 15:42	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/14/24 15:42	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/14/24 15:42	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-13	Lab ID: 50371968013	Collected: 05/01/24 09:10	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260						
		Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/14/24 15:42	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/14/24 15:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/14/24 15:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/14/24 15:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/14/24 15:42	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/14/24 15:42	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/14/24 15:42	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/14/24 15:42	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/14/24 15:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/14/24 15:42	10061-02-6	
Ethylbenzene	2.8	ug/L	1.0	1		05/14/24 15:42	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/14/24 15:42	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/14/24 15:42	87-68-3	
n-Hexane	11.8	ug/L	5.0	1		05/14/24 15:42	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/14/24 15:42	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/14/24 15:42	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/14/24 15:42	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/14/24 15:42	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/14/24 15:42	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/14/24 15:42	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/14/24 15:42	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/14/24 15:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/14/24 15:42	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/14/24 15:42	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/14/24 15:42	103-65-1	
Styrene	ND	ug/L	1.0	1		05/14/24 15:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/14/24 15:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/14/24 15:42	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/14/24 15:42	127-18-4	
Toluene	ND	ug/L	1.0	1		05/14/24 15:42	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/14/24 15:42	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/14/24 15:42	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/14/24 15:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/14/24 15:42	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/14/24 15:42	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/14/24 15:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/14/24 15:42	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/14/24 15:42	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/14/24 15:42	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/14/24 15:42	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/14/24 15:42	75-01-4	
Xylene (Total)	6.5	ug/L	3.0	1		05/14/24 15:42	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	104	%.	79-124	1		05/14/24 15:42	460-00-4	HS
Dibromofluoromethane (S)	111	%.	82-128	1		05/14/24 15:42	1868-53-7	
Toluene-d8 (S)	99	%.	73-122	1		05/14/24 15:42	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-14	Lab ID: 50371968014	Collected: 05/01/24 08:58	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 18:44	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	100	%	80-120	1		05/03/24 18:44	17060-07-0	
4-Bromofluorobenzene (S)	97	%	80-120	1		05/03/24 18:44	460-00-4	
Toluene-d8 (S)	85	%	80-120	1		05/03/24 18:44	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 13:40	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	76-124	1		05/13/24 13:40	2037-26-5	M5
4-Bromofluorobenzene (S)	98	%	78-121	1		05/13/24 13:40	460-00-4	M5
Dibromofluoromethane (S)	98	%	74-128	1		05/13/24 13:40	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 20:42	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 20:42	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 20:42	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 20:42	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 20:42	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 20:42	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 20:42	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 20:42	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 20:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 20:42	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:42	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:42	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:42	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 20:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 20:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 20:42	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 20:42	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 20:42	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 20:42	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 20:42	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 20:42	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 20:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 20:42	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 20:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:42	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 20:42	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 20:42	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 20:42	75-34-3	

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### ANALYTICAL RESULTS

Project: MPL Putnam  
 Pace Project No.: 50371968

Sample: MW-14 Lab ID: 50371968014 Collected: 05/01/24 08:58 Received: 05/01/24 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 20:42	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:42	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:42	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:42	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:42	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 20:42	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 20:42	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 20:42	87-68-3	
n-Hexane	144	ug/L	5.0	1		05/08/24 20:42	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 20:42	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 20:42	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 20:42	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 20:42	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 20:42	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 20:42	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 20:42	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 20:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 20:42	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 20:42	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 20:42	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 20:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 20:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 20:42	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 20:42	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 20:42	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:42	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:42	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 20:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 20:42	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 20:42	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 20:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 20:42	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 20:42	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 20:42	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 20:42	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 20:42	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 20:42	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	100	%.	79-124	1		05/08/24 20:42	460-00-4	
Dibromofluoromethane (S)	104	%.	82-128	1		05/08/24 20:42	1868-53-7	
Toluene-d8 (S)	101	%.	73-122	1		05/08/24 20:42	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-15	Lab ID: 50371968015	Collected: 04/30/24 10:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/06/24 17:01	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	102	%	80-120	1		05/06/24 17:01	17060-07-0	
4-Bromofluorobenzene (S)	98	%	80-120	1		05/06/24 17:01	460-00-4	
Toluene-d8 (S)	83	%	80-120	1		05/06/24 17:01	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 13:58	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 13:58	2037-26-5	M5
4-Bromofluorobenzene (S)	103	%	78-121	1		05/13/24 13:58	460-00-4	M5
Dibromofluoromethane (S)	97	%	74-128	1		05/13/24 13:58	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 16:44	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 16:44	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 16:44	107-13-1	
Benzene	8.2	ug/L	1.0	1		05/08/24 16:44	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 16:44	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 16:44	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 16:44	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 16:44	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 16:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 16:44	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:44	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:44	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:44	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 16:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 16:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 16:44	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 16:44	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 16:44	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 16:44	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 16:44	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 16:44	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 16:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 16:44	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 16:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:44	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 16:44	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 16:44	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 16:44	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-15	Lab ID: 50371968015	Collected: 04/30/24 10:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260						
		Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 16:44	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:44	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:44	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:44	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:44	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:44	10061-02-6	
Ethylbenzene	1.6	ug/L	1.0	1		05/08/24 16:44	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 16:44	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 16:44	87-68-3	
n-Hexane	146	ug/L	5.0	1		05/08/24 16:44	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 16:44	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 16:44	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 16:44	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 16:44	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 16:44	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 16:44	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 16:44	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 16:44	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 16:44	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 16:44	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 16:44	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 16:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 16:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 16:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 16:44	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 16:44	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:44	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:44	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 16:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 16:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 16:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 16:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 16:44	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 16:44	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 16:44	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 16:44	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 16:44	75-01-4	
Xylene (Total)	4.4	ug/L	3.0	1		05/08/24 16:44	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	99	%.	79-124	1		05/08/24 16:44	460-00-4	
Dibromofluoromethane (S)	102	%.	82-128	1		05/08/24 16:44	1868-53-7	
Toluene-d8 (S)	98	%.	73-122	1		05/08/24 16:44	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-16	Lab ID: 50371968016	Collected: 05/01/24 07:45	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/06/24 17:21	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	101	%	80-120	1		05/06/24 17:21	17060-07-0	
4-Bromofluorobenzene (S)	101	%	80-120	1		05/06/24 17:21	460-00-4	
Toluene-d8 (S)	87	%	80-120	1		05/06/24 17:21	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 14:16	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 14:16	2037-26-5	M5
4-Bromofluorobenzene (S)	101	%	78-121	1		05/13/24 14:16	460-00-4	M5
Dibromofluoromethane (S)	96	%	74-128	1		05/13/24 14:16	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 17:12	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 17:12	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 17:12	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 17:12	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 17:12	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 17:12	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 17:12	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 17:12	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 17:12	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 17:12	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:12	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:12	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:12	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 17:12	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 17:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 17:12	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 17:12	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 17:12	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 17:12	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 17:12	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 17:12	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 17:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 17:12	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 17:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:12	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 17:12	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 17:12	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 17:12	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-16	Lab ID: 50371968016	Collected: 05/01/24 07:45	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 17:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:12	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:12	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:12	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:12	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:12	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 17:12	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 17:12	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 17:12	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 17:12	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 17:12	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 17:12	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 17:12	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 17:12	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 17:12	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 17:12	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 17:12	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 17:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 17:12	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 17:12	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 17:12	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 17:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 17:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 17:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 17:12	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 17:12	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:12	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 17:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 17:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 17:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 17:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 17:12	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 17:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 17:12	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 17:12	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 17:12	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 17:12	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	97	%.	79-124	1		05/08/24 17:12	460-00-4	
Dibromofluoromethane (S)	105	%.	82-128	1		05/08/24 17:12	1868-53-7	
Toluene-d8 (S)	98	%.	73-122	1		05/08/24 17:12	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-17	Lab ID: 50371968017	Collected: 04/30/24 09:10	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/06/24 17:41	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	97	%	80-120	1		05/06/24 17:41	17060-07-0	
4-Bromofluorobenzene (S)	100	%	80-120	1		05/06/24 17:41	460-00-4	
Toluene-d8 (S)	87	%	80-120	1		05/06/24 17:41	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	8.5	ug/L	5.0	1		05/13/24 14:35	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	76-124	1		05/13/24 14:35	2037-26-5	M5
4-Bromofluorobenzene (S)	98	%	78-121	1		05/13/24 14:35	460-00-4	M5
Dibromofluoromethane (S)	96	%	74-128	1		05/13/24 14:35	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 17:40	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 17:40	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 17:40	107-13-1	
Benzene	161	ug/L	1.0	1		05/08/24 17:40	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 17:40	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 17:40	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 17:40	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 17:40	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 17:40	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 17:40	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:40	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:40	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 17:40	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 17:40	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 17:40	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 17:40	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 17:40	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 17:40	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 17:40	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 17:40	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 17:40	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 17:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 17:40	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 17:40	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:40	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 17:40	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 17:40	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 17:40	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-17	Lab ID: 50371968017	Collected: 04/30/24 09:10	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 17:40	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 17:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:40	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:40	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 17:40	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:40	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 17:40	10061-02-6	
Ethylbenzene	2.3	ug/L	1.0	1		05/08/24 17:40	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 17:40	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 17:40	87-68-3	
n-Hexane	121	ug/L	5.0	1		05/08/24 17:40	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 17:40	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 17:40	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 17:40	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 17:40	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 17:40	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 17:40	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 17:40	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 17:40	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 17:40	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 17:40	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 17:40	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 17:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 17:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 17:40	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 17:40	127-18-4	
Toluene	35.3	ug/L	1.0	1		05/08/24 17:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 17:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 17:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 17:40	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 17:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 17:40	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 17:40	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 17:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 17:40	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 17:40	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 17:40	75-01-4	
Xylene (Total)	24.5	ug/L	3.0	1		05/08/24 17:40	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	103	%.	79-124	1		05/08/24 17:40	460-00-4	
Dibromofluoromethane (S)	102	%.	82-128	1		05/08/24 17:40	1868-53-7	
Toluene-d8 (S)	102	%.	73-122	1		05/08/24 17:40	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-18	Lab ID: 50371968018	Collected: 04/30/24 12:45	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 20:04	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		05/03/24 20:04	17060-07-0	
4-Bromofluorobenzene (S)	100	%	80-120	1		05/03/24 20:04	460-00-4	
Toluene-d8 (S)	90	%	80-120	1		05/03/24 20:04	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 14:53	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 14:53	2037-26-5	M5
4-Bromofluorobenzene (S)	101	%	78-121	1		05/13/24 14:53	460-00-4	M5
Dibromofluoromethane (S)	97	%	74-128	1		05/13/24 14:53	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 18:08	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 18:08	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 18:08	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 18:08	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 18:08	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 18:08	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 18:08	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 18:08	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 18:08	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 18:08	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 18:08	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 18:08	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 18:08	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 18:08	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 18:08	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 18:08	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 18:08	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 18:08	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 18:08	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 18:08	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 18:08	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 18:08	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 18:08	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 18:08	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:08	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:08	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:08	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 18:08	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 18:08	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 18:08	75-34-3	

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**ANALYTICAL RESULTS**

Project: MPL Putnam  
 Pace Project No.: 50371968

**Sample: MW-18**      **Lab ID: 50371968018**      Collected: 04/30/24 12:45      Received: 05/01/24 14:00      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 18:08	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 18:08	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 18:08	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 18:08	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 18:08	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 18:08	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 18:08	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 18:08	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 18:08	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 18:08	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 18:08	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 18:08	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 18:08	87-68-3	
n-Hexane	<b>23.0</b>	ug/L	5.0	1		05/08/24 18:08	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 18:08	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 18:08	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 18:08	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 18:08	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 18:08	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 18:08	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 18:08	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 18:08	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 18:08	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 18:08	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 18:08	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 18:08	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 18:08	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 18:08	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 18:08	127-18-4	
Toluene	<b>1.4</b>	ug/L	1.0	1		05/08/24 18:08	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:08	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:08	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 18:08	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 18:08	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 18:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 18:08	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 18:08	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 18:08	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 18:08	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 18:08	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 18:08	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 18:08	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98	%.	79-124	1		05/08/24 18:08	460-00-4	
Dibromofluoromethane (S)	105	%.	82-128	1		05/08/24 18:08	1868-53-7	
Toluene-d8 (S)	99	%.	73-122	1		05/08/24 18:08	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: MW-19	Lab ID: 50371968019	Collected: 04/30/24 16:45	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 20:23	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		05/03/24 20:23	17060-07-0	
4-Bromofluorobenzene (S)	102	%	80-120	1		05/03/24 20:23	460-00-4	
Toluene-d8 (S)	87	%	80-120	1		05/03/24 20:23	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 15:11	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 15:11	2037-26-5	M5
4-Bromofluorobenzene (S)	100	%	78-121	1		05/13/24 15:11	460-00-4	M5
Dibromofluoromethane (S)	99	%	74-128	1		05/13/24 15:11	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 18:36	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 18:36	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 18:36	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 18:36	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 18:36	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 18:36	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 18:36	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 18:36	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 18:36	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 18:36	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 18:36	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 18:36	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 18:36	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 18:36	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 18:36	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 18:36	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 18:36	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 18:36	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 18:36	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 18:36	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 18:36	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 18:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 18:36	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 18:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:36	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 18:36	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 18:36	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 18:36	75-34-3	

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**ANALYTICAL RESULTS**

Project: MPL Putnam  
 Pace Project No.: 50371968

**Sample: MW-19**      **Lab ID: 50371968019**      Collected: 04/30/24 16:45      Received: 05/01/24 14:00      Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 18:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 18:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 18:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 18:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 18:36	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 18:36	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 18:36	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 18:36	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 18:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 18:36	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 18:36	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 18:36	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 18:36	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 18:36	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 18:36	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 18:36	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 18:36	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 18:36	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 18:36	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 18:36	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 18:36	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 18:36	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 18:36	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 18:36	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 18:36	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 18:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 18:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 18:36	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 18:36	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 18:36	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:36	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 18:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 18:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 18:36	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 18:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 18:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 18:36	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 18:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 18:36	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 18:36	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 18:36	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 18:36	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	100	%.	79-124	1		05/08/24 18:36	460-00-4	
Dibromofluoromethane (S)	105	%.	82-128	1		05/08/24 18:36	1868-53-7	
Toluene-d8 (S)	99	%.	73-122	1		05/08/24 18:36	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: DUP-01	Lab ID: 50371968020	Collected: 04/30/24 15:57	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/03/24 20:43	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	103	%	80-120	1		05/03/24 20:43	17060-07-0	
4-Bromofluorobenzene (S)	99	%	80-120	1		05/03/24 20:43	460-00-4	
Toluene-d8 (S)	88	%	80-120	1		05/03/24 20:43	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	27.4	ug/L	5.0	1		05/13/24 15:30	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 15:30	2037-26-5	M5
4-Bromofluorobenzene (S)	102	%	78-121	1		05/13/24 15:30	460-00-4	M5
Dibromofluoromethane (S)	96	%	74-128	1		05/13/24 15:30	1868-53-7	M5
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/09/24 14:43	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/09/24 14:43	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/09/24 14:43	107-13-1	
Benzene	128	ug/L	1.0	1		05/09/24 14:43	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/09/24 14:43	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/09/24 14:43	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/09/24 14:43	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/09/24 14:43	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/09/24 14:43	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/09/24 14:43	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/09/24 14:43	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/09/24 14:43	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/09/24 14:43	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/09/24 14:43	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/09/24 14:43	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/09/24 14:43	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/09/24 14:43	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/09/24 14:43	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/09/24 14:43	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/09/24 14:43	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/09/24 14:43	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/09/24 14:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/09/24 14:43	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/09/24 14:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/09/24 14:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/09/24 14:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/09/24 14:43	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/09/24 14:43	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/09/24 14:43	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/09/24 14:43	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: DUP-01	Lab ID: 50371968020	Collected: 04/30/24 15:57	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/09/24 14:43	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/09/24 14:43	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/09/24 14:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/09/24 14:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/09/24 14:43	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/09/24 14:43	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/09/24 14:43	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/09/24 14:43	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/09/24 14:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/09/24 14:43	10061-02-6	
Ethylbenzene	9.3	ug/L	1.0	1		05/09/24 14:43	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/09/24 14:43	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/09/24 14:43	87-68-3	
n-Hexane	591	ug/L	50.0	10		05/09/24 15:11	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/09/24 14:43	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/09/24 14:43	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/09/24 14:43	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/09/24 14:43	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/09/24 14:43	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/09/24 14:43	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/09/24 14:43	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/09/24 14:43	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/09/24 14:43	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/09/24 14:43	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/09/24 14:43	103-65-1	
Styrene	ND	ug/L	1.0	1		05/09/24 14:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/09/24 14:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/09/24 14:43	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/09/24 14:43	127-18-4	
Toluene	24.5	ug/L	1.0	1		05/09/24 14:43	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/09/24 14:43	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/09/24 14:43	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/09/24 14:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/09/24 14:43	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/09/24 14:43	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/09/24 14:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/09/24 14:43	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/09/24 14:43	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/09/24 14:43	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/09/24 14:43	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/09/24 14:43	75-01-4	
Xylene (Total)	45.3	ug/L	3.0	1		05/09/24 14:43	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	102	%.	79-124	1		05/09/24 14:43	460-00-4	
Dibromofluoromethane (S)	83	%.	82-128	1		05/09/24 14:43	1868-53-7	
Toluene-d8 (S)	103	%.	73-122	1		05/09/24 14:43	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: Trip Blank	Lab ID: 50371968021	Collected: 05/01/24 08:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/06/24 18:40	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	102	%	80-120	1		05/06/24 18:40	17060-07-0	
4-Bromofluorobenzene (S)	98	%	80-120	1		05/06/24 18:40	460-00-4	
Toluene-d8 (S)	86	%	80-120	1		05/06/24 18:40	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 19:51	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	98	%	76-124	1		05/13/24 19:51	2037-26-5	
4-Bromofluorobenzene (S)	99	%	78-121	1		05/13/24 19:51	460-00-4	
Dibromofluoromethane (S)	97	%	74-128	1		05/13/24 19:51	1868-53-7	
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 15:20	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 15:20	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 15:20	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 15:20	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 15:20	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 15:20	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 15:20	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 15:20	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 15:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 15:20	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 15:20	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 15:20	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 15:20	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 15:20	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 15:20	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 15:20	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 15:20	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 15:20	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 15:20	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 15:20	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 15:20	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 15:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 15:20	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 15:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 15:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 15:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 15:20	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 15:20	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 15:20	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 15:20	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50371968

Sample: Trip Blank	Lab ID: 50371968021	Collected: 05/01/24 08:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 15:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 15:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 15:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 15:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 15:20	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 15:20	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 15:20	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 15:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 15:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 15:20	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 15:20	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 15:20	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 15:20	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 15:20	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 15:20	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 15:20	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 15:20	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 15:20	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 15:20	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 15:20	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 15:20	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 15:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 15:20	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 15:20	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 15:20	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 15:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 15:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 15:20	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 15:20	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 15:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 15:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 15:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 15:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 15:20	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 15:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 15:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 15:20	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 15:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 15:20	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 15:20	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 15:20	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 15:20	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	100	%.	79-124	1		05/08/24 15:20	460-00-4	
Dibromofluoromethane (S)	103	%.	82-128	1		05/08/24 15:20	1868-53-7	
Toluene-d8 (S)	99	%.	73-122	1		05/08/24 15:20	2037-26-5	

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QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

QC Batch:	328583	Analysis Method:	EPA 8260B
QC Batch Method:	EPA 8260B	Analysis Description:	8260 MSV
		Laboratory:	Pace Analytical Services - New Orleans

Associated Lab Samples: 50371968001, 50371968002, 50371968003, 50371968004, 50371968005, 50371968006, 50371968007, 50371968008, 50371968009, 50371968010, 50371968011, 50371968012, 50371968013, 50371968014, 50371968015, 50371968016, 50371968017, 50371968018, 50371968019, 50371968020

METHOD BLANK: 1575692 Matrix: Water

Associated Lab Samples: 50371968001, 50371968002, 50371968003, 50371968004, 50371968005, 50371968006, 50371968007, 50371968008, 50371968009, 50371968010, 50371968011, 50371968012, 50371968013, 50371968014, 50371968015, 50371968016, 50371968017, 50371968018, 50371968019, 50371968020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/L	ND	5.0	05/13/24 09:06	M5
4-Bromofluorobenzene (S)	%	99	78-121	05/13/24 09:06	M5
Dibromofluoromethane (S)	%	97	74-128	05/13/24 09:06	M5
Toluene-d8 (S)	%	100	76-124	05/13/24 09:06	M5

LABORATORY CONTROL SAMPLE: 1575693

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Bromofluorobenzene (S)	%			98	78-121	M5
Dibromofluoromethane (S)	%			96	74-128	M5
Toluene-d8 (S)	%			99	76-124	M5

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### QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

QC Batch: 328635

Analysis Method: EPA 8260B

QC Batch Method: EPA 8260B

Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - New Orleans

Associated Lab Samples: 50371968021

METHOD BLANK: 1575881

Matrix: Water

Associated Lab Samples: 50371968021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/L	ND	5.0	05/13/24 19:13	
4-Bromofluorobenzene (S)	%.	97	78-121	05/13/24 19:13	
Dibromofluoromethane (S)	%.	106	74-128	05/13/24 19:13	
Toluene-d8 (S)	%.	98	76-124	05/13/24 19:13	

LABORATORY CONTROL SAMPLE: 1575882

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Bromofluorobenzene (S)	%.			93	78-121	
Dibromofluoromethane (S)	%.			102	74-128	
Toluene-d8 (S)	%.			100	76-124	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

QC Batch:	346776	Analysis Method:	EPA 8260C/5030C
QC Batch Method:	EPA 8260C/5030C	Analysis Description:	8260 MSV
		Laboratory:	Pace Analytical Services - Melville
Associated Lab Samples:	50371968001, 50371968002, 50371968003, 50371968004, 50371968005, 50371968006, 50371968007, 50371968008, 50371968009, 50371968010, 50371968011, 50371968012, 50371968013, 50371968014, 50371968018, 50371968019, 50371968020		

METHOD BLANK:	1791519	Matrix:	Water
Associated Lab Samples:	50371968001, 50371968002, 50371968003, 50371968004, 50371968005, 50371968006, 50371968007, 50371968008, 50371968009, 50371968010, 50371968011, 50371968012, 50371968013, 50371968014, 50371968018, 50371968019, 50371968020		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Nonane	ug/L	ND	4.0	05/03/24 13:03	N3
1,2-Dichloroethane-d4 (S)	%	101	80-120	05/03/24 13:03	
4-Bromofluorobenzene (S)	%	101	80-120	05/03/24 13:03	
Toluene-d8 (S)	%	88	80-120	05/03/24 13:03	

LABORATORY CONTROL SAMPLE: 1791520						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Nonane	ug/L	50	51.6	103	24-143	N3
1,2-Dichloroethane-d4 (S)	%			95	80-120	
4-Bromofluorobenzene (S)	%			101	80-120	
Toluene-d8 (S)	%			88	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1791975													1791976		
Parameter	Units	50371968001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual			
n-Nonane	ug/L	ND	50	50	56.9	51.2	114	102	10-200	10	20	N3			
1,2-Dichloroethane-d4 (S)	%						96	95	80-120		20				
4-Bromofluorobenzene (S)	%						103	102	80-120		20				
Toluene-d8 (S)	%						84	87	80-120		20				

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

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QC Batch:	346969	Analysis Method:	EPA 8260C/5030C
QC Batch Method:	EPA 8260C/5030C	Analysis Description:	8260 MSV
		Laboratory:	Pace Analytical Services - Melville

Associated Lab Samples: 50371968015, 50371968016, 50371968017, 50371968021

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METHOD BLANK: 1792807 Matrix: Water  
 Associated Lab Samples: 50371968015, 50371968016, 50371968017, 50371968021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Nonane	ug/L	ND	4.0	05/06/24 15:55	N3
1,2-Dichloroethane-d4 (S)	%	99	80-120	05/06/24 15:55	
4-Bromofluorobenzene (S)	%	98	80-120	05/06/24 15:55	
Toluene-d8 (S)	%	84	80-120	05/06/24 15:55	

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LABORATORY CONTROL SAMPLE: 1792808

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Nonane	ug/L	50	50.3	101	24-143	N3
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			103	80-120	
Toluene-d8 (S)	%			85	80-120	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

QC Batch: 787863

Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260

Analysis Description: 8260 MSV Low Level

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968001, 50371968002

METHOD BLANK: 3604053

Matrix: Water

Associated Lab Samples: 50371968001, 50371968002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/02/24 23:00	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/02/24 23:00	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/02/24 23:00	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/02/24 23:00	
1,1-Dichloroethane	ug/L	ND	1.0	05/02/24 23:00	
1,1-Dichloroethene	ug/L	ND	1.0	05/02/24 23:00	
1,1-Dichloropropene	ug/L	ND	1.0	05/02/24 23:00	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/02/24 23:00	
1,2,3-Trichloropropane	ug/L	ND	1.0	05/02/24 23:00	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/02/24 23:00	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	05/02/24 23:00	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/02/24 23:00	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/02/24 23:00	
1,2-Dichloroethane	ug/L	ND	1.0	05/02/24 23:00	
1,2-Dichloropropane	ug/L	ND	1.0	05/02/24 23:00	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	05/02/24 23:00	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/02/24 23:00	
1,3-Dichloropropane	ug/L	ND	1.0	05/02/24 23:00	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/02/24 23:00	
1-Methylnaphthalene	ug/L	ND	20.0	05/02/24 23:00	
2,2-Dichloropropane	ug/L	ND	1.0	05/02/24 23:00	
2-Butanone (MEK)	ug/L	ND	20.0	05/02/24 23:00	
2-Chlorotoluene	ug/L	ND	1.0	05/02/24 23:00	
2-Hexanone	ug/L	ND	20.0	05/02/24 23:00	
2-Methylnaphthalene	ug/L	ND	20.0	05/02/24 23:00	
4-Chlorotoluene	ug/L	ND	1.0	05/02/24 23:00	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20.0	05/02/24 23:00	
Acetone	ug/L	ND	20.0	05/02/24 23:00	
Acrolein	ug/L	ND	20.0	05/02/24 23:00	
Acrylonitrile	ug/L	ND	100	05/02/24 23:00	
Benzene	ug/L	ND	1.0	05/02/24 23:00	
Bromobenzene	ug/L	ND	1.0	05/02/24 23:00	
Bromochloromethane	ug/L	ND	1.0	05/02/24 23:00	
Bromodichloromethane	ug/L	ND	1.0	05/02/24 23:00	
Bromoform	ug/L	ND	1.0	05/02/24 23:00	
Bromomethane	ug/L	ND	5.0	05/02/24 23:00	
Carbon disulfide	ug/L	ND	5.0	05/02/24 23:00	
Carbon tetrachloride	ug/L	ND	1.0	05/02/24 23:00	
Chlorobenzene	ug/L	ND	1.0	05/02/24 23:00	
Chloroethane	ug/L	ND	2.0	05/02/24 23:00	

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## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

METHOD BLANK: 3604053

Matrix: Water

Associated Lab Samples: 50371968001, 50371968002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloroform	ug/L	ND	1.0	05/02/24 23:00	
Chloromethane	ug/L	ND	2.0	05/02/24 23:00	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/02/24 23:00	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/02/24 23:00	
Dibromochloromethane	ug/L	ND	1.0	05/02/24 23:00	
Dibromomethane	ug/L	ND	1.0	05/02/24 23:00	
Dichlorodifluoromethane	ug/L	ND	2.0	05/02/24 23:00	
Ethyl methacrylate	ug/L	ND	20.0	05/02/24 23:00	
Ethylbenzene	ug/L	ND	1.0	05/02/24 23:00	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/02/24 23:00	
Iodomethane	ug/L	ND	5.0	05/02/24 23:00	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	05/02/24 23:00	
Methyl-tert-butyl ether	ug/L	ND	4.0	05/02/24 23:00	
Methylene Chloride	ug/L	ND	5.0	05/02/24 23:00	
n-Butylbenzene	ug/L	ND	1.0	05/02/24 23:00	
n-Hexane	ug/L	ND	5.0	05/02/24 23:00	
n-Propylbenzene	ug/L	ND	1.0	05/02/24 23:00	
Naphthalene	ug/L	ND	1.0	05/02/24 23:00	
p-Isopropyltoluene	ug/L	ND	1.0	05/02/24 23:00	
sec-Butylbenzene	ug/L	ND	1.0	05/02/24 23:00	
Styrene	ug/L	ND	1.0	05/02/24 23:00	
tert-Butylbenzene	ug/L	ND	1.0	05/02/24 23:00	
Tetrachloroethene	ug/L	ND	1.0	05/02/24 23:00	
Toluene	ug/L	ND	1.0	05/02/24 23:00	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/02/24 23:00	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/02/24 23:00	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	05/02/24 23:00	
Trichloroethene	ug/L	ND	1.0	05/02/24 23:00	
Trichlorofluoromethane	ug/L	ND	2.0	05/02/24 23:00	
Vinyl acetate	ug/L	ND	20.0	05/02/24 23:00	
Vinyl chloride	ug/L	ND	1.0	05/02/24 23:00	
Xylene (Total)	ug/L	ND	3.0	05/02/24 23:00	
4-Bromofluorobenzene (S)	%	100	79-124	05/02/24 23:00	
Dibromofluoromethane (S)	%	103	82-128	05/02/24 23:00	
Toluene-d8 (S)	%	94	73-122	05/02/24 23:00	

LABORATORY CONTROL SAMPLE: 3604054

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.6	103	81-130	
1,1,1-Trichloroethane	ug/L	50	48.7	97	71-126	
1,1,2,2-Tetrachloroethane	ug/L	50	50.2	100	70-126	
1,1,2-Trichloroethane	ug/L	50	51.0	102	79-125	
1,1-Dichloroethane	ug/L	50	48.2	96	79-120	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

LABORATORY CONTROL SAMPLE: 3604054

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	50	39.5	79	71-130	
1,1-Dichloropropene	ug/L	50	48.9	98	78-144	
1,2,3-Trichlorobenzene	ug/L	50	52.4	105	57-146	
1,2,3-Trichloropropane	ug/L	50	53.5	107	74-127	
1,2,4-Trichlorobenzene	ug/L	50	53.1	106	62-136	
1,2,4-Trimethylbenzene	ug/L	50	50.5	101	69-120	
1,2-Dibromoethane (EDB)	ug/L	50	53.5	107	80-120	
1,2-Dichlorobenzene	ug/L	50	50.6	101	79-123	
1,2-Dichloroethane	ug/L	50	43.4	87	72-123	
1,2-Dichloropropane	ug/L	50	51.6	103	76-125	
1,3,5-Trimethylbenzene	ug/L	50	49.7	99	71-120	
1,3-Dichlorobenzene	ug/L	50	50.8	102	78-117	
1,3-Dichloropropane	ug/L	50	49.0	98	77-126	
1,4-Dichlorobenzene	ug/L	50	47.5	95	79-116	
1-Methylnaphthalene	ug/L	50	61.0	122	50-190	
2,2-Dichloropropane	ug/L	50	36.1	72	48-138	
2-Butanone (MEK)	ug/L	250	244	98	67-135	
2-Chlorotoluene	ug/L	50	47.1	94	75-122	
2-Hexanone	ug/L	250	242	97	65-135	
2-Methylnaphthalene	ug/L	50	59.7	119	55-184	
4-Chlorotoluene	ug/L	50	50.0	100	77-120	
4-Methyl-2-pentanone (MIBK)	ug/L	250	244	97	69-136	
Acetone	ug/L	250	157	63	34-156	
Acrolein	ug/L	1000	805	81	59-191	
Acrylonitrile	ug/L	250	259	104	67-146	
Benzene	ug/L	50	49.0	98	76-122	
Bromobenzene	ug/L	50	47.5	95	75-121	
Bromochloromethane	ug/L	50	43.1	86	73-119	
Bromodichloromethane	ug/L	50	49.2	98	80-126	
Bromoform	ug/L	50	57.6	115	77-124	
Bromomethane	ug/L	50	32.5	65	10-175	
Carbon disulfide	ug/L	50	35.9	72	69-121	
Carbon tetrachloride	ug/L	50	51.3	103	73-127	
Chlorobenzene	ug/L	50	49.1	98	76-118	
Chloroethane	ug/L	50	36.1	72	36-162	
Chloroform	ug/L	50	47.3	95	78-121	
Chloromethane	ug/L	50	35.5	71	37-143	
cis-1,2-Dichloroethene	ug/L	50	50.7	101	77-123	
cis-1,3-Dichloropropene	ug/L	50	48.0	96	76-132	
Dibromochloromethane	ug/L	50	52.9	106	79-130	
Dibromomethane	ug/L	50	50.9	102	79-124	
Dichlorodifluoromethane	ug/L	50	39.7	79	29-126	
Ethyl methacrylate	ug/L	50	56.1	112	78-137	
Ethylbenzene	ug/L	50	50.1	100	76-120	
Hexachloro-1,3-butadiene	ug/L	50	49.9	100	60-131	
Iodomethane	ug/L	50	21.5	43	10-148	
Isopropylbenzene (Cumene)	ug/L	50	50.3	101	71-124	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

LABORATORY CONTROL SAMPLE: 3604054

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methyl-tert-butyl ether	ug/L	50	49.1	98	71-121	
Methylene Chloride	ug/L	50	37.3	75	71-121	
n-Butylbenzene	ug/L	50	46.3	93	68-131	
n-Hexane	ug/L	50	43.5	87	51-126	
n-Propylbenzene	ug/L	50	48.7	97	67-127	
Naphthalene	ug/L	50	56.0	112	62-143	
p-Isopropyltoluene	ug/L	50	49.9	100	72-124	
sec-Butylbenzene	ug/L	50	50.0	100	71-126	
Styrene	ug/L	50	51.5	103	80-121	
tert-Butylbenzene	ug/L	50	51.8	104	71-128	
Tetrachloroethene	ug/L	50	51.6	103	71-122	
Toluene	ug/L	50	47.6	95	74-118	
trans-1,2-Dichloroethene	ug/L	50	51.3	103	75-122	
trans-1,3-Dichloropropene	ug/L	50	47.5	95	77-126	
trans-1,4-Dichloro-2-butene	ug/L	50	41.6J	83	53-136	
Trichloroethene	ug/L	50	50.1	100	74-125	
Trichlorofluoromethane	ug/L	50	47.9	96	64-138	
Vinyl acetate	ug/L	200	247	124	74-154	
Vinyl chloride	ug/L	50	41.3	83	55-139	
Xylene (Total)	ug/L	100	99.5	99	73-119	
4-Bromofluorobenzene (S)	%			98	79-124	
Dibromofluoromethane (S)	%			101	82-128	
Toluene-d8 (S)	%			96	73-122	

MATRIX SPIKE SAMPLE: 3604056

Parameter	Units	50371968002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	50	54.0	108	47-139	
1,1,1-Trichloroethane	ug/L	ND	50	56.2	112	47-145	
1,1,2,2-Tetrachloroethane	ug/L	ND	50	47.4	95	49-133	
1,1,2-Trichloroethane	ug/L	ND	50	50.7	101	52-136	
1,1-Dichloroethane	ug/L	ND	50	50.9	102	52-137	
1,1-Dichloroethene	ug/L	ND	50	47.0	94	53-144	
1,1-Dichloropropene	ug/L	ND	50	53.1	106	49-150	
1,2,3-Trichlorobenzene	ug/L	ND	50	50.2	100	20-153	
1,2,3-Trichloropropane	ug/L	ND	50	50.7	101	47-134	
1,2,4-Trichlorobenzene	ug/L	ND	50	50.5	101	23-141	
1,2,4-Trimethylbenzene	ug/L	ND	50	52.3	105	41-131	
1,2-Dibromoethane (EDB)	ug/L	ND	50	53.3	107	55-133	
1,2-Dichlorobenzene	ug/L	ND	50	50.4	101	43-133	
1,2-Dichloroethane	ug/L	ND	50	48.2	96	50-138	
1,2-Dichloropropane	ug/L	ND	50	52.2	104	54-139	
1,3,5-Trimethylbenzene	ug/L	ND	50	51.7	103	39-133	
1,3-Dichlorobenzene	ug/L	ND	50	50.5	101	41-131	
1,3-Dichloropropane	ug/L	ND	50	49.3	99	50-136	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

MATRIX SPIKE SAMPLE:		3604056		50371968002		Spike	MS	MS	% Rec	Qualifiers
Parameter	Units	Result	Conc.	Result	% Rec	Result	% Rec	Limits		
1,4-Dichlorobenzene	ug/L	ND	50	48.8	98			41-131		
1-Methylnaphthalene	ug/L	ND	50	49.3	99			10-188		
2,2-Dichloropropane	ug/L	ND	50	33.3	67			17-141		
2-Butanone (MEK)	ug/L	ND	250	231	92			45-138		
2-Chlorotoluene	ug/L	ND	50	49.0	98			36-141		
2-Hexanone	ug/L	ND	250	234	94			45-135		
2-Methylnaphthalene	ug/L	ND	50	50.5	101			10-197		
4-Chlorotoluene	ug/L	ND	50	48.6	97			38-134		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	250	233	93			46-138		
Acetone	ug/L	ND	250	174	70			25-151		
Acrolein	ug/L	ND	1000	641	64			36-168		
Acrylonitrile	ug/L	ND	250	235	94			47-147		
Benzene	ug/L	ND	50	51.8	104			53-138		
Bromobenzene	ug/L	ND	50	49.4	99			47-130		
Bromochloromethane	ug/L	ND	50	46.3	93			52-130		
Bromodichloromethane	ug/L	ND	50	53.7	107			50-146		
Bromoform	ug/L	ND	50	56.0	112			45-132		
Bromomethane	ug/L	ND	50	27.6	55			10-173		
Carbon disulfide	ug/L	ND	50	41.8	84			47-133		
Carbon tetrachloride	ug/L	ND	50	60.8	122			43-148		
Chlorobenzene	ug/L	ND	50	50.4	101			52-131		
Chloroethane	ug/L	ND	50	40.1	80			25-169		
Chloroform	ug/L	ND	50	52.2	104			54-138		
Chloromethane	ug/L	ND	50	38.7	77			33-137		
cis-1,2-Dichloroethene	ug/L	ND	50	52.1	104			50-141		
cis-1,3-Dichloropropene	ug/L	ND	50	46.6	93			47-135		
Dibromochloromethane	ug/L	ND	50	55.1	110			48-139		
Dibromomethane	ug/L	ND	50	53.3	107			51-141		
Dichlorodifluoromethane	ug/L	ND	50	47.4	95			15-130		
Ethyl methacrylate	ug/L	ND	50	52.5	105			51-142		
Ethylbenzene	ug/L	ND	50	51.8	104			50-136		
Hexachloro-1,3-butadiene	ug/L	ND	50	47.7	95			15-141		
Iodomethane	ug/L	ND	50	14.1	28			10-145		
Isopropylbenzene (Cumene)	ug/L	ND	50	54.8	110			46-137		
Methyl-tert-butyl ether	ug/L	ND	50	48.8	98			47-135		
Methylene Chloride	ug/L	ND	50	38.7	77			48-131		
n-Butylbenzene	ug/L	ND	50	47.5	95			30-138		
n-Hexane	ug/L	ND	50	43.2	86			35-137		
n-Propylbenzene	ug/L	ND	50	50.6	101			37-135		
Naphthalene	ug/L	ND	50	50.7	101			34-152		
p-Isopropyltoluene	ug/L	ND	50	51.4	103			35-136		
sec-Butylbenzene	ug/L	ND	50	51.9	104			36-137		
Styrene	ug/L	ND	50	53.2	106			46-136		
tert-Butylbenzene	ug/L	ND	50	53.6	107			40-137		
Tetrachloroethene	ug/L	ND	50	54.8	110			44-138		
Toluene	ug/L	ND	50	49.3	99			52-132		
trans-1,2-Dichloroethene	ug/L	ND	50	53.2	106			50-137		

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

MATRIX SPIKE SAMPLE: 3604056		50371968002	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
trans-1,3-Dichloropropene	ug/L	ND	50	47.1	94	46-130	
trans-1,4-Dichloro-2-butene	ug/L	ND	50	41.5J	83	24-134	
Trichloroethene	ug/L	ND	50	56.1	112	49-140	
Trichlorofluoromethane	ug/L	ND	50	57.7	115	44-153	
Vinyl acetate	ug/L	ND	200	174	87	32-142	
Vinyl chloride	ug/L	ND	50	46.8	94	41-147	
Xylene (Total)	ug/L	ND	100	104	104	44-138	
4-Bromofluorobenzene (S)	%				102	79-124	
Dibromofluoromethane (S)	%				105	82-128	
Toluene-d8 (S)	%				95	73-122	

SAMPLE DUPLICATE: 3604055

Parameter	Units	50371968001	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		20	
1,1,1-Trichloroethane	ug/L	ND	ND		20	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		20	
1,1,2-Trichloroethane	ug/L	ND	ND		20	
1,1-Dichloroethane	ug/L	ND	ND		20	
1,1-Dichloroethene	ug/L	ND	ND		20	
1,1-Dichloropropene	ug/L	ND	ND		20	
1,2,3-Trichlorobenzene	ug/L	ND	ND		20	
1,2,3-Trichloropropane	ug/L	ND	ND		20	
1,2,4-Trichlorobenzene	ug/L	ND	ND		20	
1,2,4-Trimethylbenzene	ug/L	ND	ND		20	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1,2-Dichlorobenzene	ug/L	ND	ND		20	
1,2-Dichloroethane	ug/L	ND	ND		20	
1,2-Dichloropropane	ug/L	ND	ND		20	
1,3,5-Trimethylbenzene	ug/L	ND	ND		20	
1,3-Dichlorobenzene	ug/L	ND	ND		20	
1,3-Dichloropropane	ug/L	ND	ND		20	
1,4-Dichlorobenzene	ug/L	ND	ND		20	
1-Methylnaphthalene	ug/L	ND	ND		20	
2,2-Dichloropropane	ug/L	ND	ND		20	
2-Butanone (MEK)	ug/L	ND	ND		20	
2-Chlorotoluene	ug/L	ND	ND		20	
2-Hexanone	ug/L	ND	ND		20	
2-Methylnaphthalene	ug/L	ND	ND		20	
4-Chlorotoluene	ug/L	ND	ND		20	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		20	
Acetone	ug/L	ND	ND		20	
Acrolein	ug/L	ND	ND		20	
Acrylonitrile	ug/L	ND	ND		20	
Benzene	ug/L	ND	ND		20	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

SAMPLE DUPLICATE: 3604055

Parameter	Units	50371968001 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromobenzene	ug/L	ND	ND		20	
Bromochloromethane	ug/L	ND	ND		20	
Bromodichloromethane	ug/L	ND	ND		20	
Bromoform	ug/L	ND	ND		20	
Bromomethane	ug/L	ND	ND		20	
Carbon disulfide	ug/L	ND	ND		20	
Carbon tetrachloride	ug/L	ND	ND		20	
Chlorobenzene	ug/L	ND	ND		20	
Chloroethane	ug/L	ND	ND		20	
Chloroform	ug/L	ND	ND		20	
Chloromethane	ug/L	ND	ND		20	
cis-1,2-Dichloroethene	ug/L	ND	ND		20	
cis-1,3-Dichloropropene	ug/L	ND	ND		20	
Dibromochloromethane	ug/L	ND	ND		20	
Dibromomethane	ug/L	ND	ND		20	
Dichlorodifluoromethane	ug/L	ND	ND		20	
Ethyl methacrylate	ug/L	ND	ND		20	
Ethylbenzene	ug/L	ND	ND		20	
Hexachloro-1,3-butadiene	ug/L	ND	ND		20	
Iodomethane	ug/L	ND	ND		20	
Isopropylbenzene (Cumene)	ug/L	ND	ND		20	
Methyl-tert-butyl ether	ug/L	ND	ND		20	
Methylene Chloride	ug/L	ND	ND		20	
n-Butylbenzene	ug/L	ND	ND		20	
n-Hexane	ug/L	ND	ND		20	
n-Propylbenzene	ug/L	ND	ND		20	
Naphthalene	ug/L	ND	ND		20	
p-Isopropyltoluene	ug/L	ND	ND		20	
sec-Butylbenzene	ug/L	ND	ND		20	
Styrene	ug/L	ND	ND		20	
tert-Butylbenzene	ug/L	ND	ND		20	
Tetrachloroethene	ug/L	ND	ND		20	
Toluene	ug/L	ND	ND		20	
trans-1,2-Dichloroethene	ug/L	ND	ND		20	
trans-1,3-Dichloropropene	ug/L	ND	ND		20	
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		20	
Trichloroethene	ug/L	ND	ND		20	
Trichlorofluoromethane	ug/L	ND	ND		20	
Vinyl acetate	ug/L	ND	ND		20	
Vinyl chloride	ug/L	ND	ND		20	
Xylene (Total)	ug/L	ND	ND		20	
4-Bromofluorobenzene (S)	%	99	99			
Dibromofluoromethane (S)	%	105	104			
Toluene-d8 (S)	%	95	96			

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### QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

QC Batch: 788343

Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260

Analysis Description: 8260 MSV Low Level

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968003, 50371968004, 50371968005, 50371968006, 50371968007, 50371968008, 50371968009, 50371968010, 50371968014

METHOD BLANK: 3606403

Matrix: Water

Associated Lab Samples: 50371968003, 50371968004, 50371968005, 50371968006, 50371968007, 50371968008, 50371968009, 50371968010, 50371968014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/08/24 11:21	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/08/24 11:21	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/08/24 11:21	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/08/24 11:21	
1,1-Dichloroethane	ug/L	ND	1.0	05/08/24 11:21	
1,1-Dichloroethene	ug/L	ND	1.0	05/08/24 11:21	
1,1-Dichloropropene	ug/L	ND	1.0	05/08/24 11:21	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/08/24 11:21	
1,2,3-Trichloropropane	ug/L	ND	1.0	05/08/24 11:21	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/08/24 11:21	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	05/08/24 11:21	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/08/24 11:21	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:21	
1,2-Dichloroethane	ug/L	ND	1.0	05/08/24 11:21	
1,2-Dichloropropane	ug/L	ND	1.0	05/08/24 11:21	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	05/08/24 11:21	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:21	
1,3-Dichloropropane	ug/L	ND	1.0	05/08/24 11:21	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:21	
1-Methylnaphthalene	ug/L	ND	20.0	05/08/24 11:21	
2,2-Dichloropropane	ug/L	ND	1.0	05/08/24 11:21	
2-Butanone (MEK)	ug/L	ND	20.0	05/08/24 11:21	
2-Chlorotoluene	ug/L	ND	1.0	05/08/24 11:21	
2-Hexanone	ug/L	ND	20.0	05/08/24 11:21	
2-Methylnaphthalene	ug/L	ND	20.0	05/08/24 11:21	
4-Chlorotoluene	ug/L	ND	1.0	05/08/24 11:21	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20.0	05/08/24 11:21	
Acetone	ug/L	ND	20.0	05/08/24 11:21	
Acrolein	ug/L	ND	20.0	05/08/24 11:21	
Acrylonitrile	ug/L	ND	100	05/08/24 11:21	
Benzene	ug/L	ND	1.0	05/08/24 11:21	
Bromobenzene	ug/L	ND	1.0	05/08/24 11:21	
Bromochloromethane	ug/L	ND	1.0	05/08/24 11:21	
Bromodichloromethane	ug/L	ND	1.0	05/08/24 11:21	
Bromoform	ug/L	ND	1.0	05/08/24 11:21	
Bromomethane	ug/L	ND	5.0	05/08/24 11:21	
Carbon disulfide	ug/L	ND	5.0	05/08/24 11:21	
Carbon tetrachloride	ug/L	ND	1.0	05/08/24 11:21	
Chlorobenzene	ug/L	ND	1.0	05/08/24 11:21	

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

METHOD BLANK: 3606403

Matrix: Water

Associated Lab Samples: 50371968003, 50371968004, 50371968005, 50371968006, 50371968007, 50371968008, 50371968009, 50371968010, 50371968014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloroethane	ug/L	ND	2.0	05/08/24 11:21	
Chloroform	ug/L	ND	1.0	05/08/24 11:21	
Chloromethane	ug/L	ND	2.0	05/08/24 11:21	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/08/24 11:21	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/08/24 11:21	
Dibromochloromethane	ug/L	ND	1.0	05/08/24 11:21	
Dibromomethane	ug/L	ND	1.0	05/08/24 11:21	
Dichlorodifluoromethane	ug/L	ND	2.0	05/08/24 11:21	
Ethyl methacrylate	ug/L	ND	20.0	05/08/24 11:21	
Ethylbenzene	ug/L	ND	1.0	05/08/24 11:21	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/08/24 11:21	
Iodomethane	ug/L	ND	5.0	05/08/24 11:21	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	05/08/24 11:21	
Methyl-tert-butyl ether	ug/L	ND	4.0	05/08/24 11:21	
Methylene Chloride	ug/L	ND	5.0	05/08/24 11:21	
n-Butylbenzene	ug/L	ND	1.0	05/08/24 11:21	
n-Hexane	ug/L	ND	5.0	05/08/24 11:21	
n-Propylbenzene	ug/L	ND	1.0	05/08/24 11:21	
Naphthalene	ug/L	ND	1.0	05/08/24 11:21	
p-Isopropyltoluene	ug/L	ND	1.0	05/08/24 11:21	
sec-Butylbenzene	ug/L	ND	1.0	05/08/24 11:21	
Styrene	ug/L	ND	1.0	05/08/24 11:21	
tert-Butylbenzene	ug/L	ND	1.0	05/08/24 11:21	
Tetrachloroethene	ug/L	ND	1.0	05/08/24 11:21	
Toluene	ug/L	ND	1.0	05/08/24 11:21	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/08/24 11:21	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/08/24 11:21	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	05/08/24 11:21	
Trichloroethene	ug/L	ND	1.0	05/08/24 11:21	
Trichlorofluoromethane	ug/L	ND	2.0	05/08/24 11:21	
Vinyl acetate	ug/L	ND	20.0	05/08/24 11:21	
Vinyl chloride	ug/L	ND	1.0	05/08/24 11:21	
Xylene (Total)	ug/L	ND	3.0	05/08/24 11:21	
4-Bromofluorobenzene (S)	%	94	79-124	05/08/24 11:21	1d
Dibromofluoromethane (S)	%	99	82-128	05/08/24 11:21	
Toluene-d8 (S)	%	99	73-122	05/08/24 11:21	

LABORATORY CONTROL SAMPLE: 3606404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.6	103	81-130	
1,1,1-Trichloroethane	ug/L	50	48.9	98	71-126	
1,1,2,2-Tetrachloroethane	ug/L	50	48.5	97	70-126	

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**REPORT OF LABORATORY ANALYSIS**

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

LABORATORY CONTROL SAMPLE: 3606404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,2-Trichloroethane	ug/L	50	54.3	109	79-125	
1,1-Dichloroethane	ug/L	50	50.7	101	79-120	
1,1-Dichloroethene	ug/L	50	52.6	105	71-130	
1,1-Dichloropropene	ug/L	50	54.5	109	78-144	
1,2,3-Trichlorobenzene	ug/L	50	50.6	101	57-146	
1,2,3-Trichloropropane	ug/L	50	51.8	104	74-127	
1,2,4-Trichlorobenzene	ug/L	50	49.6	99	62-136	
1,2,4-Trimethylbenzene	ug/L	50	50.0	100	69-120	
1,2-Dibromoethane (EDB)	ug/L	50	50.8	102	80-120	
1,2-Dichlorobenzene	ug/L	50	48.2	96	79-123	
1,2-Dichloroethane	ug/L	50	47.1	94	72-123	
1,2-Dichloropropane	ug/L	50	52.4	105	76-125	
1,3,5-Trimethylbenzene	ug/L	50	50.5	101	71-120	
1,3-Dichlorobenzene	ug/L	50	48.4	97	78-117	
1,3-Dichloropropane	ug/L	50	49.0	98	77-126	
1,4-Dichlorobenzene	ug/L	50	50.0	100	79-116	
1-Methylnaphthalene	ug/L	50	58.4	117	50-190	
2,2-Dichloropropane	ug/L	50	53.4	107	48-138	
2-Butanone (MEK)	ug/L	250	268	107	67-135	
2-Chlorotoluene	ug/L	50	47.1	94	75-122	
2-Hexanone	ug/L	250	266	106	65-135	
2-Methylnaphthalene	ug/L	50	59.0	118	55-184	
4-Chlorotoluene	ug/L	50	50.9	102	77-120	
4-Methyl-2-pentanone (MIBK)	ug/L	250	270	108	69-136	
Acetone	ug/L	250	245	98	34-156	
Acrolein	ug/L	1000	961	96	59-191	
Acrylonitrile	ug/L	250	276	110	67-146	
Benzene	ug/L	50	48.8	98	76-122	
Bromobenzene	ug/L	50	48.2	96	75-121	
Bromochloromethane	ug/L	50	53.2	106	73-119	
Bromodichloromethane	ug/L	50	51.0	102	80-126	
Bromoform	ug/L	50	53.7	107	77-124	
Bromomethane	ug/L	50	63.4	127	10-175	
Carbon disulfide	ug/L	50	47.1	94	69-121	
Carbon tetrachloride	ug/L	50	49.2	98	73-127	
Chlorobenzene	ug/L	50	49.1	98	76-118	
Chloroethane	ug/L	50	55.4	111	36-162	
Chloroform	ug/L	50	48.5	97	78-121	
Chloromethane	ug/L	50	50.9	102	37-143	
cis-1,2-Dichloroethene	ug/L	50	51.5	103	77-123	
cis-1,3-Dichloropropene	ug/L	50	53.9	108	76-132	
Dibromochloromethane	ug/L	50	52.4	105	79-130	
Dibromomethane	ug/L	50	51.7	103	79-124	
Dichlorodifluoromethane	ug/L	50	42.8	86	29-126	
Ethyl methacrylate	ug/L	50	60.0	120	78-137	
Ethylbenzene	ug/L	50	51.9	104	76-120	
Hexachloro-1,3-butadiene	ug/L	50	48.5	97	60-131	

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## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

LABORATORY CONTROL SAMPLE: 3606404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iodomethane	ug/L	50	66.3	133	10-148	
Isopropylbenzene (Cumene)	ug/L	50	52.9	106	71-124	
Methyl-tert-butyl ether	ug/L	50	49.5	99	71-121	
Methylene Chloride	ug/L	50	43.8	88	71-121	
n-Butylbenzene	ug/L	50	52.5	105	68-131	
n-Hexane	ug/L	50	54.7	109	51-126	
n-Propylbenzene	ug/L	50	50.0	100	67-127	
Naphthalene	ug/L	50	52.0	104	62-143	
p-Isopropyltoluene	ug/L	50	52.4	105	72-124	
sec-Butylbenzene	ug/L	50	52.8	106	71-126	
Styrene	ug/L	50	51.9	104	80-121	
tert-Butylbenzene	ug/L	50	52.8	106	71-128	
Tetrachloroethene	ug/L	50	54.8	110	71-122	
Toluene	ug/L	50	49.2	98	74-118	
trans-1,2-Dichloroethene	ug/L	50	54.6	109	75-122	
trans-1,3-Dichloropropene	ug/L	50	52.7	105	77-126	
trans-1,4-Dichloro-2-butene	ug/L	50	51.9J	104	53-136	
Trichloroethene	ug/L	50	48.9	98	74-125	
Trichlorofluoromethane	ug/L	50	44.9	90	64-138	
Vinyl acetate	ug/L	200	318	159	74-154 L1	
Vinyl chloride	ug/L	50	51.5	103	55-139	
Xylene (Total)	ug/L	150	150	100	73-119	
4-Bromofluorobenzene (S)	%			96	79-124	
Dibromofluoromethane (S)	%			99	82-128	
Toluene-d8 (S)	%			101	73-122	

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QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

QC Batch: 788348

Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260

Analysis Description: 8260 MSV Low Level

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968015, 50371968016, 50371968017, 50371968018, 50371968019, 50371968021

METHOD BLANK: 3606427

Matrix: Water

Associated Lab Samples: 50371968015, 50371968016, 50371968017, 50371968018, 50371968019, 50371968021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1-Dichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1-Dichloroethene	ug/L	ND	1.0	05/08/24 11:35	
1,1-Dichloropropene	ug/L	ND	1.0	05/08/24 11:35	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,2,3-Trichloropropane	ug/L	ND	1.0	05/08/24 11:35	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	05/08/24 11:35	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/08/24 11:35	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,2-Dichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,2-Dichloropropane	ug/L	ND	1.0	05/08/24 11:35	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	05/08/24 11:35	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,3-Dichloropropane	ug/L	ND	1.0	05/08/24 11:35	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1-Methylnaphthalene	ug/L	ND	20.0	05/08/24 11:35	
2,2-Dichloropropane	ug/L	ND	1.0	05/08/24 11:35	
2-Butanone (MEK)	ug/L	ND	20.0	05/08/24 11:35	
2-Chlorotoluene	ug/L	ND	1.0	05/08/24 11:35	
2-Hexanone	ug/L	ND	20.0	05/08/24 11:35	
2-Methylnaphthalene	ug/L	ND	20.0	05/08/24 11:35	
4-Chlorotoluene	ug/L	ND	1.0	05/08/24 11:35	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20.0	05/08/24 11:35	
Acetone	ug/L	ND	20.0	05/08/24 11:35	
Acrolein	ug/L	ND	20.0	05/08/24 11:35	
Acrylonitrile	ug/L	ND	100	05/08/24 11:35	
Benzene	ug/L	ND	1.0	05/08/24 11:35	
Bromobenzene	ug/L	ND	1.0	05/08/24 11:35	
Bromochloromethane	ug/L	ND	1.0	05/08/24 11:35	
Bromodichloromethane	ug/L	ND	1.0	05/08/24 11:35	
Bromoform	ug/L	ND	1.0	05/08/24 11:35	
Bromomethane	ug/L	ND	5.0	05/08/24 11:35	
Carbon disulfide	ug/L	ND	5.0	05/08/24 11:35	
Carbon tetrachloride	ug/L	ND	1.0	05/08/24 11:35	
Chlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
Chloroethane	ug/L	ND	2.0	05/08/24 11:35	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

METHOD BLANK: 3606427

Matrix: Water

Associated Lab Samples: 50371968015, 50371968016, 50371968017, 50371968018, 50371968019, 50371968021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloroform	ug/L	ND	1.0	05/08/24 11:35	
Chloromethane	ug/L	ND	2.0	05/08/24 11:35	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/08/24 11:35	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/08/24 11:35	
Dibromochloromethane	ug/L	ND	1.0	05/08/24 11:35	
Dibromomethane	ug/L	ND	1.0	05/08/24 11:35	
Dichlorodifluoromethane	ug/L	ND	2.0	05/08/24 11:35	
Ethyl methacrylate	ug/L	ND	20.0	05/08/24 11:35	
Ethylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/08/24 11:35	
Iodomethane	ug/L	ND	5.0	05/08/24 11:35	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	05/08/24 11:35	
Methyl-tert-butyl ether	ug/L	ND	4.0	05/08/24 11:35	
Methylene Chloride	ug/L	ND	5.0	05/08/24 11:35	
n-Butylbenzene	ug/L	ND	1.0	05/08/24 11:35	
n-Hexane	ug/L	ND	5.0	05/08/24 11:35	
n-Propylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Naphthalene	ug/L	ND	1.0	05/08/24 11:35	
p-Isopropyltoluene	ug/L	ND	1.0	05/08/24 11:35	
sec-Butylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Styrene	ug/L	ND	1.0	05/08/24 11:35	
tert-Butylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Tetrachloroethene	ug/L	ND	1.0	05/08/24 11:35	
Toluene	ug/L	ND	1.0	05/08/24 11:35	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/08/24 11:35	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/08/24 11:35	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	05/08/24 11:35	
Trichloroethene	ug/L	ND	1.0	05/08/24 11:35	
Trichlorofluoromethane	ug/L	ND	2.0	05/08/24 11:35	
Vinyl acetate	ug/L	ND	20.0	05/08/24 11:35	
Vinyl chloride	ug/L	ND	1.0	05/08/24 11:35	
Xylene (Total)	ug/L	ND	3.0	05/08/24 11:35	
4-Bromofluorobenzene (S)	%	96	79-124	05/08/24 11:35	1d
Dibromofluoromethane (S)	%	98	82-128	05/08/24 11:35	
Toluene-d8 (S)	%	98	73-122	05/08/24 11:35	

LABORATORY CONTROL SAMPLE: 3606428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.6	107	81-130	
1,1,1-Trichloroethane	ug/L	50	51.0	102	71-126	
1,1,2,2-Tetrachloroethane	ug/L	50	48.5	97	70-126	
1,1,2-Trichloroethane	ug/L	50	54.6	109	79-125	
1,1-Dichloroethane	ug/L	50	50.9	102	79-120	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

LABORATORY CONTROL SAMPLE: 3606428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	50	53.4	107	71-130	
1,1-Dichloropropene	ug/L	50	56.6	113	78-144	
1,2,3-Trichlorobenzene	ug/L	50	49.3	99	57-146	
1,2,3-Trichloropropane	ug/L	50	54.0	108	74-127	
1,2,4-Trichlorobenzene	ug/L	50	52.8	106	62-136	
1,2,4-Trimethylbenzene	ug/L	50	52.1	104	69-120	
1,2-Dibromoethane (EDB)	ug/L	50	52.1	104	80-120	
1,2-Dichlorobenzene	ug/L	50	50.1	100	79-123	
1,2-Dichloroethane	ug/L	50	47.4	95	72-123	
1,2-Dichloropropane	ug/L	50	49.4	99	76-125	
1,3,5-Trimethylbenzene	ug/L	50	52.2	104	71-120	
1,3-Dichlorobenzene	ug/L	50	52.2	104	78-117	
1,3-Dichloropropane	ug/L	50	52.1	104	77-126	
1,4-Dichlorobenzene	ug/L	50	52.1	104	79-116	
1-Methylnaphthalene	ug/L	50	58.6	117	50-190	
2,2-Dichloropropane	ug/L	50	55.8	112	48-138	
2-Butanone (MEK)	ug/L	250	263	105	67-135	
2-Chlorotoluene	ug/L	50	50.3	101	75-122	
2-Hexanone	ug/L	250	263	105	65-135	
2-Methylnaphthalene	ug/L	50	57.6	115	55-184	
4-Chlorotoluene	ug/L	50	51.1	102	77-120	
4-Methyl-2-pentanone (MIBK)	ug/L	250	265	106	69-136	
Acetone	ug/L	250	230	92	34-156	
Acrolein	ug/L	1000	903	90	59-191	
Acrylonitrile	ug/L	250	255	102	67-146	
Benzene	ug/L	50	52.0	104	76-122	
Bromobenzene	ug/L	50	46.7	93	75-121	
Bromochloromethane	ug/L	50	52.2	104	73-119	
Bromodichloromethane	ug/L	50	52.9	106	80-126	
Bromoform	ug/L	50	51.9	104	77-124	
Bromomethane	ug/L	50	38.8	78	10-175	
Carbon disulfide	ug/L	50	50.0	100	69-121	
Carbon tetrachloride	ug/L	50	51.7	103	73-127	
Chlorobenzene	ug/L	50	51.9	104	76-118	
Chloroethane	ug/L	50	55.7	111	36-162	
Chloroform	ug/L	50	50.7	101	78-121	
Chloromethane	ug/L	50	52.7	105	37-143	
cis-1,2-Dichloroethene	ug/L	50	54.1	108	77-123	
cis-1,3-Dichloropropene	ug/L	50	55.5	111	76-132	
Dibromochloromethane	ug/L	50	53.0	106	79-130	
Dibromomethane	ug/L	50	50.5	101	79-124	
Dichlorodifluoromethane	ug/L	50	44.4	89	29-126	
Ethyl methacrylate	ug/L	50	56.8	114	78-137	
Ethylbenzene	ug/L	50	54.4	109	76-120	
Hexachloro-1,3-butadiene	ug/L	50	51.4	103	60-131	
Iodomethane	ug/L	50	66.9	134	10-148	
Isopropylbenzene (Cumene)	ug/L	50	53.6	107	71-124	

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## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

LABORATORY CONTROL SAMPLE: 3606428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methyl-tert-butyl ether	ug/L	50	50.0	100	71-121	
Methylene Chloride	ug/L	50	44.3	89	71-121	
n-Butylbenzene	ug/L	50	52.4	105	68-131	
n-Hexane	ug/L	50	55.0	110	51-126	
n-Propylbenzene	ug/L	50	51.8	104	67-127	
Naphthalene	ug/L	50	51.3	103	62-143	
p-Isopropyltoluene	ug/L	50	53.1	106	72-124	
sec-Butylbenzene	ug/L	50	53.1	106	71-126	
Styrene	ug/L	50	54.4	109	80-121	
tert-Butylbenzene	ug/L	50	57.8	116	71-128	
Tetrachloroethene	ug/L	50	54.3	109	71-122	
Toluene	ug/L	50	51.6	103	74-118	
trans-1,2-Dichloroethene	ug/L	50	53.4	107	75-122	
trans-1,3-Dichloropropene	ug/L	50	55.3	111	77-126	
trans-1,4-Dichloro-2-butene	ug/L	50	49.9J	100	53-136	
Trichloroethene	ug/L	50	50.6	101	74-125	
Trichlorofluoromethane	ug/L	50	50.2	100	64-138	
Vinyl acetate	ug/L	200	314	157	74-154	L1
Vinyl chloride	ug/L	50	53.4	107	55-139	
Xylene (Total)	ug/L	150	157	105	73-119	
4-Bromofluorobenzene (S)	%			98	79-124	
Dibromofluoromethane (S)	%			99	82-128	
Toluene-d8 (S)	%			101	73-122	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

QC Batch: 788972

Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260

Analysis Description: 8260 MSV Low Level

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968011, 50371968020

METHOD BLANK: 3609335

Matrix: Water

Associated Lab Samples: 50371968011, 50371968020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/09/24 11:27	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/09/24 11:27	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/09/24 11:27	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/09/24 11:27	
1,1-Dichloroethane	ug/L	ND	1.0	05/09/24 11:27	
1,1-Dichloroethene	ug/L	ND	1.0	05/09/24 11:27	
1,1-Dichloropropene	ug/L	ND	1.0	05/09/24 11:27	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/09/24 11:27	
1,2,3-Trichloropropane	ug/L	ND	1.0	05/09/24 11:27	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/09/24 11:27	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	05/09/24 11:27	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/09/24 11:27	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/09/24 11:27	
1,2-Dichloroethane	ug/L	ND	1.0	05/09/24 11:27	
1,2-Dichloropropane	ug/L	ND	1.0	05/09/24 11:27	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	05/09/24 11:27	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/09/24 11:27	
1,3-Dichloropropane	ug/L	ND	1.0	05/09/24 11:27	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/09/24 11:27	
1-Methylnaphthalene	ug/L	ND	20.0	05/09/24 11:27	
2,2-Dichloropropane	ug/L	ND	1.0	05/09/24 11:27	
2-Butanone (MEK)	ug/L	ND	20.0	05/09/24 11:27	
2-Chlorotoluene	ug/L	ND	1.0	05/09/24 11:27	
2-Hexanone	ug/L	ND	20.0	05/09/24 11:27	
2-Methylnaphthalene	ug/L	ND	20.0	05/09/24 11:27	
4-Chlorotoluene	ug/L	ND	1.0	05/09/24 11:27	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20.0	05/09/24 11:27	
Acetone	ug/L	ND	20.0	05/09/24 11:27	
Acrolein	ug/L	ND	20.0	05/09/24 11:27	
Acrylonitrile	ug/L	ND	100	05/09/24 11:27	
Benzene	ug/L	ND	1.0	05/09/24 11:27	
Bromobenzene	ug/L	ND	1.0	05/09/24 11:27	
Bromochloromethane	ug/L	ND	1.0	05/09/24 11:27	
Bromodichloromethane	ug/L	ND	1.0	05/09/24 11:27	
Bromoform	ug/L	ND	1.0	05/09/24 11:27	
Bromomethane	ug/L	ND	5.0	05/09/24 11:27	
Carbon disulfide	ug/L	ND	5.0	05/09/24 11:27	
Carbon tetrachloride	ug/L	ND	1.0	05/09/24 11:27	
Chlorobenzene	ug/L	ND	1.0	05/09/24 11:27	
Chloroethane	ug/L	ND	2.0	05/09/24 11:27	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

METHOD BLANK: 3609335

Matrix: Water

Associated Lab Samples: 50371968011, 50371968020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloroform	ug/L	ND	1.0	05/09/24 11:27	
Chloromethane	ug/L	ND	2.0	05/09/24 11:27	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/09/24 11:27	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/09/24 11:27	
Dibromochloromethane	ug/L	ND	1.0	05/09/24 11:27	
Dibromomethane	ug/L	ND	1.0	05/09/24 11:27	
Dichlorodifluoromethane	ug/L	ND	2.0	05/09/24 11:27	
Ethyl methacrylate	ug/L	ND	20.0	05/09/24 11:27	
Ethylbenzene	ug/L	ND	1.0	05/09/24 11:27	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/09/24 11:27	
Iodomethane	ug/L	ND	5.0	05/09/24 11:27	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	05/09/24 11:27	
Methyl-tert-butyl ether	ug/L	ND	4.0	05/09/24 11:27	
Methylene Chloride	ug/L	ND	5.0	05/09/24 11:27	
n-Butylbenzene	ug/L	ND	1.0	05/09/24 11:27	
n-Hexane	ug/L	ND	5.0	05/09/24 11:27	
n-Propylbenzene	ug/L	ND	1.0	05/09/24 11:27	
Naphthalene	ug/L	ND	1.0	05/09/24 11:27	
p-Isopropyltoluene	ug/L	ND	1.0	05/09/24 11:27	
sec-Butylbenzene	ug/L	ND	1.0	05/09/24 11:27	
Styrene	ug/L	ND	1.0	05/09/24 11:27	
tert-Butylbenzene	ug/L	ND	1.0	05/09/24 11:27	
Tetrachloroethene	ug/L	ND	1.0	05/09/24 11:27	
Toluene	ug/L	ND	1.0	05/09/24 11:27	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/09/24 11:27	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/09/24 11:27	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	05/09/24 11:27	
Trichloroethene	ug/L	ND	1.0	05/09/24 11:27	
Trichlorofluoromethane	ug/L	ND	2.0	05/09/24 11:27	
Vinyl acetate	ug/L	ND	20.0	05/09/24 11:27	
Vinyl chloride	ug/L	ND	1.0	05/09/24 11:27	
Xylene (Total)	ug/L	ND	3.0	05/09/24 11:27	
4-Bromofluorobenzene (S)	%	99	79-124	05/09/24 11:27	
Dibromofluoromethane (S)	%	105	82-128	05/09/24 11:27	
Toluene-d8 (S)	%	99	73-122	05/09/24 11:27	

LABORATORY CONTROL SAMPLE: 3609336

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.0	106	81-130	
1,1,1-Trichloroethane	ug/L	50	55.1	110	71-126	
1,1,2,2-Tetrachloroethane	ug/L	50	47.3	95	70-126	
1,1,2-Trichloroethane	ug/L	50	53.0	106	79-125	
1,1-Dichloroethane	ug/L	50	51.0	102	79-120	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

LABORATORY CONTROL SAMPLE: 3609336

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	50	53.9	108	71-130	
1,1-Dichloropropene	ug/L	50	56.6	113	78-144	
1,2,3-Trichlorobenzene	ug/L	50	49.6	99	57-146	
1,2,3-Trichloropropane	ug/L	50	53.4	107	74-127	
1,2,4-Trichlorobenzene	ug/L	50	48.3	97	62-136	
1,2,4-Trimethylbenzene	ug/L	50	49.5	99	69-120	
1,2-Dibromoethane (EDB)	ug/L	50	50.9	102	80-120	
1,2-Dichlorobenzene	ug/L	50	46.8	94	79-123	
1,2-Dichloroethane	ug/L	50	53.7	107	72-123	
1,2-Dichloropropane	ug/L	50	50.2	100	76-125	
1,3,5-Trimethylbenzene	ug/L	50	50.4	101	71-120	
1,3-Dichlorobenzene	ug/L	50	48.6	97	78-117	
1,3-Dichloropropane	ug/L	50	49.1	98	77-126	
1,4-Dichlorobenzene	ug/L	50	49.6	99	79-116	
1-Methylnaphthalene	ug/L	50	57.8	116	50-190	
2,2-Dichloropropane	ug/L	50	55.8	112	48-138	
2-Butanone (MEK)	ug/L	250	267	107	67-135	
2-Chlorotoluene	ug/L	50	48.7	97	75-122	
2-Hexanone	ug/L	250	257	103	65-135	
2-Methylnaphthalene	ug/L	50	57.8	116	55-184	
4-Chlorotoluene	ug/L	50	49.6	99	77-120	
4-Methyl-2-pentanone (MIBK)	ug/L	250	263	105	69-136	
Acetone	ug/L	250	274	109	34-156	
Acrolein	ug/L	1000	936	94	59-191	
Acrylonitrile	ug/L	250	258	103	67-146	
Benzene	ug/L	50	48.0	96	76-122	
Bromobenzene	ug/L	50	49.2	98	75-121	
Bromochloromethane	ug/L	50	50.0	100	73-119	
Bromodichloromethane	ug/L	50	55.6	111	80-126	
Bromoform	ug/L	50	54.3	109	77-124	
Bromomethane	ug/L	50	62.4	125	10-175	
Carbon disulfide	ug/L	50	48.1	96	69-121	
Carbon tetrachloride	ug/L	50	56.4	113	73-127	
Chlorobenzene	ug/L	50	49.3	99	76-118	
Chloroethane	ug/L	50	55.2	110	36-162	
Chloroform	ug/L	50	52.0	104	78-121	
Chloromethane	ug/L	50	46.4	93	37-143	
cis-1,2-Dichloroethene	ug/L	50	50.8	102	77-123	
cis-1,3-Dichloropropene	ug/L	50	53.2	106	76-132	
Dibromochloromethane	ug/L	50	54.7	109	79-130	
Dibromomethane	ug/L	50	53.1	106	79-124	
Dichlorodifluoromethane	ug/L	50	46.2	92	29-126	
Ethyl methacrylate	ug/L	50	58.5	117	78-137	
Ethylbenzene	ug/L	50	52.4	105	76-120	
Hexachloro-1,3-butadiene	ug/L	50	51.4	103	60-131	
Iodomethane	ug/L	50	61.0	122	10-148	
Isopropylbenzene (Cumene)	ug/L	50	53.6	107	71-124	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

LABORATORY CONTROL SAMPLE: 3609336

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methyl-tert-butyl ether	ug/L	50	50.6	101	71-121	
Methylene Chloride	ug/L	50	44.1	88	71-121	
n-Butylbenzene	ug/L	50	51.1	102	68-131	
n-Hexane	ug/L	50	49.8	100	51-126	
n-Propylbenzene	ug/L	50	49.3	99	67-127	
Naphthalene	ug/L	50	51.0	102	62-143	
p-Isopropyltoluene	ug/L	50	51.9	104	72-124	
sec-Butylbenzene	ug/L	50	51.4	103	71-126	
Styrene	ug/L	50	52.1	104	80-121	
tert-Butylbenzene	ug/L	50	51.7	103	71-128	
Tetrachloroethene	ug/L	50	54.6	109	71-122	
Toluene	ug/L	50	48.6	97	74-118	
trans-1,2-Dichloroethene	ug/L	50	54.0	108	75-122	
trans-1,3-Dichloropropene	ug/L	50	53.1	106	77-126	
trans-1,4-Dichloro-2-butene	ug/L	50	55.4J	111	53-136	
Trichloroethene	ug/L	50	50.0	100	74-125	
Trichlorofluoromethane	ug/L	50	56.2	112	64-138	
Vinyl acetate	ug/L	200	305	152	74-154	
Vinyl chloride	ug/L	50	50.8	102	55-139	
Xylene (Total)	ug/L	150	150	100	73-119	
4-Bromofluorobenzene (S)	%			102	79-124	
Dibromofluoromethane (S)	%			106	82-128	
Toluene-d8 (S)	%			101	73-122	

MATRIX SPIKE SAMPLE: 3609338

Parameter	Units	50372118002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	50	51.9	104	47-139	
1,1,1-Trichloroethane	ug/L	<1.0	50	58.7	117	47-145	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	43.2	86	49-133	
1,1,2-Trichloroethane	ug/L	<1.0	50	49.5	99	52-136	
1,1-Dichloroethane	ug/L	<1.0	50	50.2	100	52-137	
1,1-Dichloroethene	ug/L	<1.0	50	53.0	106	53-144	
1,1-Dichloropropene	ug/L	<1.0	50	57.0	114	49-150	
1,2,3-Trichlorobenzene	ug/L	<1.0	50	45.7	91	20-153	
1,2,3-Trichloropropane	ug/L	<1.0	50	51.5	103	47-134	
1,2,4-Trichlorobenzene	ug/L	<1.0	50	45.3	91	23-141	
1,2,4-Trimethylbenzene	ug/L	<5.0	50	48.2	96	41-131	
1,2-Dibromoethane (EDB)	ug/L	<1.0	50	48.0	96	55-133	
1,2-Dichlorobenzene	ug/L	<1.0	50	44.7	89	43-133	
1,2-Dichloroethane	ug/L	<1.0	50	57.0	114	50-138	
1,2-Dichloropropane	ug/L	<1.0	50	45.6	91	54-139	
1,3,5-Trimethylbenzene	ug/L	<5.0	50	49.4	99	39-133	
1,3-Dichlorobenzene	ug/L	<1.0	50	45.5	91	41-131	
1,3-Dichloropropane	ug/L	<1.0	50	47.0	94	50-136	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

MATRIX SPIKE SAMPLE: 3609338		50372118002	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	<1.0	50	44.7	89	41-131	
1-Methylnaphthalene	ug/L	<20.0	50	45.1	90	10-188	
2,2-Dichloropropane	ug/L	<1.0	50	55.4	111	17-141	
2-Butanone (MEK)	ug/L	<5.0	250	228	91	45-138	
2-Chlorotoluene	ug/L	<1.0	50	46.5	93	36-141	
2-Hexanone	ug/L	<5.0	250	225	90	45-135	
2-Methylnaphthalene	ug/L	<20.0	50	45.7	91	10-197	
4-Chlorotoluene	ug/L	<1.0	50	45.8	92	38-134	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	250	230	92	46-138	
Acetone	ug/L	<20.0	250	254	101	25-151	
Acrolein	ug/L	<20.0	1000	768	77	36-168	
Acrylonitrile	ug/L	<5.0	250	224	89	47-147	
Benzene	ug/L	<1.0	50	46.6	93	53-138	
Bromobenzene	ug/L	<1.0	50	48.8	98	47-130	
Bromochloromethane	ug/L	<1.0	50	48.2	96	52-130	
Bromodichloromethane	ug/L	<1.0	50	56.0	112	50-146	
Bromoform	ug/L	<1.0	50	50.7	101	45-132	
Bromomethane	ug/L	<5.0	50	23.8	48	10-173	
Carbon disulfide	ug/L	<5.0	50	45.9	92	47-133	
Carbon tetrachloride	ug/L	<1.0	50	60.8	122	43-148	
Chlorobenzene	ug/L	<1.0	50	46.0	92	52-131	
Chloroethane	ug/L	<5.0	50	57.0	114	25-169	
Chloroform	ug/L	<1.0	50	53.1	106	54-138	
Chloromethane	ug/L	<5.0	50	35.8	72	33-137	
cis-1,2-Dichloroethene	ug/L	<1.0	50	49.8	100	50-141	
cis-1,3-Dichloropropene	ug/L	<1.0	50	48.1	96	47-135	
Dibromochloromethane	ug/L	<1.0	50	53.3	107	48-139	
Dibromomethane	ug/L	<1.0	50	52.5	105	51-141	
Dichlorodifluoromethane	ug/L	<2.0	50	49.3	99	15-130	
Ethyl methacrylate	ug/L	<20.0	50	52.1	104	51-142	
Ethylbenzene	ug/L	<1.0	50	49.8	100	50-136	
Hexachloro-1,3-butadiene	ug/L	<1.0	50	49.8	100	15-141	
Iodomethane	ug/L	<1.0	50	26.5	53	10-145	
Isopropylbenzene (Cumene)	ug/L	<1.0	50	52.8	106	46-137	
Methyl-tert-butyl ether	ug/L	<4.0	50	48.5	97	47-135	
Methylene Chloride	ug/L	<5.0	50	40.3	81	48-131	
n-Butylbenzene	ug/L	<1.0	50	49.5	99	30-138	
n-Hexane	ug/L	<5.0	50	46.5	93	35-137	
n-Propylbenzene	ug/L	<1.0	50	47.7	95	37-135	
Naphthalene	ug/L	<1.0	50	45.2	90	34-152	
p-Isopropyltoluene	ug/L	<1.0	50	49.7	99	35-136	
sec-Butylbenzene	ug/L	<1.0	50	49.5	99	36-137	
Styrene	ug/L	<1.0	50	49.9	100	46-136	
tert-Butylbenzene	ug/L	<1.0	50	50.7	101	40-137	
Tetrachloroethene	ug/L	<1.0	50	51.6	103	44-138	
Toluene	ug/L	<1.0	50	45.8	92	52-132	
trans-1,2-Dichloroethene	ug/L	<1.0	50	51.8	104	50-137	

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## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

MATRIX SPIKE SAMPLE: 3609338		50372118002	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
trans-1,3-Dichloropropene	ug/L	<1.0	50	52.5	105	46-130	
trans-1,4-Dichloro-2-butene	ug/L	<5.0	50	51.5J	103	24-134	
Trichloroethene	ug/L	<1.0	50	49.0	98	49-140	
Trichlorofluoromethane	ug/L	<1.0	50	60.6	121	44-153	
Vinyl acetate	ug/L	<5.0	200	264	132	32-142	
Vinyl chloride	ug/L	<1.0	50	47.9	96	41-147	
Xylene (Total)	ug/L	<3.0	150	143	95	44-138	
4-Bromofluorobenzene (S)	%				107	79-124	
Dibromofluoromethane (S)	%				108	82-128	
Toluene-d8 (S)	%				101	73-122	

SAMPLE DUPLICATE: 3609337

Parameter	Units	50372118001	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
1,1,1,2-Tetrachloroethane	ug/L	<1.0	ND		20	
1,1,1-Trichloroethane	ug/L	<1.0	ND		20	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	ND		20	
1,1,2-Trichloroethane	ug/L	<1.0	ND		20	
1,1-Dichloroethane	ug/L	<1.0	ND		20	
1,1-Dichloroethene	ug/L	<1.0	ND		20	
1,1-Dichloropropene	ug/L	<1.0	ND		20	
1,2,3-Trichlorobenzene	ug/L	<1.0	ND		20	
1,2,3-Trichloropropane	ug/L	<1.0	ND		20	
1,2,4-Trichlorobenzene	ug/L	<1.0	ND		20	
1,2,4-Trimethylbenzene	ug/L	<5.0	ND		20	
1,2-Dibromoethane (EDB)	ug/L	<1.0	ND		20	
1,2-Dichlorobenzene	ug/L	<1.0	ND		20	
1,2-Dichloroethane	ug/L	<1.0	ND		20	
1,2-Dichloropropane	ug/L	<1.0	ND		20	
1,3,5-Trimethylbenzene	ug/L	<5.0	ND		20	
1,3-Dichlorobenzene	ug/L	<1.0	ND		20	
1,3-Dichloropropane	ug/L	<1.0	ND		20	
1,4-Dichlorobenzene	ug/L	<1.0	ND		20	
1-Methylnaphthalene	ug/L	<20.0	ND		20	
2,2-Dichloropropane	ug/L	<1.0	ND		20	
2-Butanone (MEK)	ug/L	<5.0	ND		20	
2-Chlorotoluene	ug/L	<1.0	ND		20	
2-Hexanone	ug/L	<5.0	ND		20	
2-Methylnaphthalene	ug/L	<20.0	ND		20	
4-Chlorotoluene	ug/L	<1.0	ND		20	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	ND		20	
Acetone	ug/L	<20.0	ND		20	
Acrolein	ug/L	<20.0	ND		20	
Acrylonitrile	ug/L	<5.0	ND		20	
Benzene	ug/L	<1.0	ND		20	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

SAMPLE DUPLICATE: 3609337

Parameter	Units	50372118001 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromobenzene	ug/L	<1.0	ND		20	
Bromochloromethane	ug/L	<1.0	ND		20	
Bromodichloromethane	ug/L	<1.0	ND		20	
Bromoform	ug/L	<1.0	ND		20	
Bromomethane	ug/L	<5.0	ND		20	
Carbon disulfide	ug/L	<5.0	ND		20	
Carbon tetrachloride	ug/L	<1.0	ND		20	
Chlorobenzene	ug/L	<1.0	ND		20	
Chloroethane	ug/L	<5.0	ND		20	
Chloroform	ug/L	<1.0	ND		20	
Chloromethane	ug/L	<5.0	ND		20	
cis-1,2-Dichloroethene	ug/L	<1.0	ND		20	
cis-1,3-Dichloropropene	ug/L	<1.0	ND		20	
Dibromochloromethane	ug/L	<1.0	ND		20	
Dibromomethane	ug/L	<1.0	ND		20	
Dichlorodifluoromethane	ug/L	<2.0	ND		20	
Ethyl methacrylate	ug/L	<20.0	ND		20	
Ethylbenzene	ug/L	<1.0	ND		20	
Hexachloro-1,3-butadiene	ug/L	<1.0	ND		20	
Iodomethane	ug/L	<1.0	ND		20	
Isopropylbenzene (Cumene)	ug/L	<1.0	ND		20	
Methyl-tert-butyl ether	ug/L	<4.0	ND		20	
Methylene Chloride	ug/L	<5.0	ND		20	
n-Butylbenzene	ug/L	<1.0	ND		20	
n-Hexane	ug/L	<5.0	ND		20	
n-Propylbenzene	ug/L	<1.0	ND		20	
Naphthalene	ug/L	<1.0	ND		20	
p-Isopropyltoluene	ug/L	<1.0	ND		20	
sec-Butylbenzene	ug/L	<1.0	ND		20	
Styrene	ug/L	<1.0	ND		20	
tert-Butylbenzene	ug/L	<1.0	ND		20	
Tetrachloroethene	ug/L	<1.0	ND		20	
Toluene	ug/L	<1.0	ND		20	
trans-1,2-Dichloroethene	ug/L	<1.0	ND		20	
trans-1,3-Dichloropropene	ug/L	<1.0	ND		20	
trans-1,4-Dichloro-2-butene	ug/L	<5.0	ND		20	
Trichloroethene	ug/L	<1.0	ND		20	
Trichlorofluoromethane	ug/L	<1.0	ND		20	
Vinyl acetate	ug/L	<5.0	ND		20	
Vinyl chloride	ug/L	<1.0	ND		20	
Xylene (Total)	ug/L	<3.0	ND		20	
4-Bromofluorobenzene (S)	%	100	101			
Dibromofluoromethane (S)	%	108	110			
Toluene-d8 (S)	%	98	98			

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QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

QC Batch: 789844

Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260

Analysis Description: 8260 MSV Low Level

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968012, 50371968013

METHOD BLANK: 3613797

Matrix: Water

Associated Lab Samples: 50371968012, 50371968013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/14/24 13:22	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/14/24 13:22	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/14/24 13:22	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/14/24 13:22	
1,1-Dichloroethane	ug/L	ND	1.0	05/14/24 13:22	
1,1-Dichloroethene	ug/L	ND	1.0	05/14/24 13:22	
1,1-Dichloropropene	ug/L	ND	1.0	05/14/24 13:22	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/14/24 13:22	
1,2,3-Trichloropropane	ug/L	ND	1.0	05/14/24 13:22	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/14/24 13:22	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	05/14/24 13:22	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/14/24 13:22	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/14/24 13:22	
1,2-Dichloroethane	ug/L	ND	1.0	05/14/24 13:22	
1,2-Dichloropropane	ug/L	ND	1.0	05/14/24 13:22	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	05/14/24 13:22	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/14/24 13:22	
1,3-Dichloropropane	ug/L	ND	1.0	05/14/24 13:22	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/14/24 13:22	
1-Methylnaphthalene	ug/L	ND	20.0	05/14/24 13:22	
2,2-Dichloropropane	ug/L	ND	1.0	05/14/24 13:22	
2-Butanone (MEK)	ug/L	ND	20.0	05/14/24 13:22	
2-Chlorotoluene	ug/L	ND	1.0	05/14/24 13:22	
2-Hexanone	ug/L	ND	20.0	05/14/24 13:22	
2-Methylnaphthalene	ug/L	ND	20.0	05/14/24 13:22	
4-Chlorotoluene	ug/L	ND	1.0	05/14/24 13:22	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20.0	05/14/24 13:22	
Acetone	ug/L	ND	20.0	05/14/24 13:22	
Acrolein	ug/L	ND	20.0	05/14/24 13:22	
Acrylonitrile	ug/L	ND	100	05/14/24 13:22	
Benzene	ug/L	ND	1.0	05/14/24 13:22	
Bromobenzene	ug/L	ND	1.0	05/14/24 13:22	
Bromochloromethane	ug/L	ND	1.0	05/14/24 13:22	
Bromodichloromethane	ug/L	ND	1.0	05/14/24 13:22	
Bromoform	ug/L	ND	1.0	05/14/24 13:22	
Bromomethane	ug/L	ND	5.0	05/14/24 13:22	
Carbon disulfide	ug/L	ND	5.0	05/14/24 13:22	
Carbon tetrachloride	ug/L	ND	1.0	05/14/24 13:22	
Chlorobenzene	ug/L	ND	1.0	05/14/24 13:22	
Chloroethane	ug/L	ND	2.0	05/14/24 13:22	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

METHOD BLANK: 3613797

Matrix: Water

Associated Lab Samples: 50371968012, 50371968013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloroform	ug/L	ND	1.0	05/14/24 13:22	
Chloromethane	ug/L	ND	2.0	05/14/24 13:22	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/14/24 13:22	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/14/24 13:22	
Dibromochloromethane	ug/L	ND	1.0	05/14/24 13:22	
Dibromomethane	ug/L	ND	1.0	05/14/24 13:22	
Dichlorodifluoromethane	ug/L	ND	2.0	05/14/24 13:22	
Ethyl methacrylate	ug/L	ND	20.0	05/14/24 13:22	
Ethylbenzene	ug/L	ND	1.0	05/14/24 13:22	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/14/24 13:22	
Iodomethane	ug/L	ND	5.0	05/14/24 13:22	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	05/14/24 13:22	
Methyl-tert-butyl ether	ug/L	ND	4.0	05/14/24 13:22	
Methylene Chloride	ug/L	ND	5.0	05/14/24 13:22	
n-Butylbenzene	ug/L	ND	1.0	05/14/24 13:22	
n-Hexane	ug/L	ND	5.0	05/14/24 13:22	
n-Propylbenzene	ug/L	ND	1.0	05/14/24 13:22	
Naphthalene	ug/L	ND	1.0	05/14/24 13:22	
p-Isopropyltoluene	ug/L	ND	1.0	05/14/24 13:22	
sec-Butylbenzene	ug/L	ND	1.0	05/14/24 13:22	
Styrene	ug/L	ND	1.0	05/14/24 13:22	
tert-Butylbenzene	ug/L	ND	1.0	05/14/24 13:22	
Tetrachloroethene	ug/L	ND	1.0	05/14/24 13:22	
Toluene	ug/L	ND	1.0	05/14/24 13:22	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/14/24 13:22	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/14/24 13:22	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	05/14/24 13:22	
Trichloroethene	ug/L	ND	1.0	05/14/24 13:22	
Trichlorofluoromethane	ug/L	ND	2.0	05/14/24 13:22	
Vinyl acetate	ug/L	ND	20.0	05/14/24 13:22	
Vinyl chloride	ug/L	ND	1.0	05/14/24 13:22	
Xylene (Total)	ug/L	ND	3.0	05/14/24 13:22	
4-Bromofluorobenzene (S)	%	102	79-124	05/14/24 13:22	
Dibromofluoromethane (S)	%	112	82-128	05/14/24 13:22	
Toluene-d8 (S)	%	99	73-122	05/14/24 13:22	

LABORATORY CONTROL SAMPLE: 3613798

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.4	111	81-130	
1,1,1-Trichloroethane	ug/L	50	56.6	113	71-126	
1,1,2,2-Tetrachloroethane	ug/L	50	48.4	97	70-126	
1,1,2-Trichloroethane	ug/L	50	52.7	105	79-125	
1,1-Dichloroethane	ug/L	50	48.6	97	79-120	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

LABORATORY CONTROL SAMPLE: 3613798

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	50	53.1	106	71-130	
1,1-Dichloropropene	ug/L	50	54.0	108	78-144	
1,2,3-Trichlorobenzene	ug/L	50	54.2	108	57-146	
1,2,3-Trichloropropane	ug/L	50	57.7	115	74-127	
1,2,4-Trichlorobenzene	ug/L	50	51.9	104	62-136	
1,2,4-Trimethylbenzene	ug/L	50	51.1	102	69-120	
1,2-Dibromoethane (EDB)	ug/L	50	53.5	107	80-120	
1,2-Dichlorobenzene	ug/L	50	49.7	99	79-123	
1,2-Dichloroethane	ug/L	50	56.9	114	72-123	
1,2-Dichloropropane	ug/L	50	47.8	96	76-125	
1,3,5-Trimethylbenzene	ug/L	50	51.2	102	71-120	
1,3-Dichlorobenzene	ug/L	50	50.8	102	78-117	
1,3-Dichloropropane	ug/L	50	49.1	98	77-126	
1,4-Dichlorobenzene	ug/L	50	50.0	100	79-116	
1-Methylnaphthalene	ug/L	50	59.7	119	50-190	
2,2-Dichloropropane	ug/L	50	53.6	107	48-138	
2-Butanone (MEK)	ug/L	250	270	108	67-135	
2-Chlorotoluene	ug/L	50	47.8	96	75-122	
2-Hexanone	ug/L	250	266	107	65-135	
2-Methylnaphthalene	ug/L	50	61.0	122	55-184	
4-Chlorotoluene	ug/L	50	49.5	99	77-120	
4-Methyl-2-pentanone (MIBK)	ug/L	250	269	107	69-136	
Acetone	ug/L	250	296	118	34-156	
Acrolein	ug/L	1000	959	96	59-191	
Acrylonitrile	ug/L	250	263	105	67-146	
Benzene	ug/L	50	46.3	93	76-122	
Bromobenzene	ug/L	50	50.1	100	75-121	
Bromochloromethane	ug/L	50	45.1	90	73-119	
Bromodichloromethane	ug/L	50	57.5	115	80-126	
Bromoform	ug/L	50	58.6	117	77-124	
Bromomethane	ug/L	50	14.7	29	10-175	
Carbon disulfide	ug/L	50	43.6	87	69-121	
Carbon tetrachloride	ug/L	50	56.6	113	73-127	
Chlorobenzene	ug/L	50	48.5	97	76-118	
Chloroethane	ug/L	50	53.5	107	36-162	
Chloroform	ug/L	50	52.7	105	78-121	
Chloromethane	ug/L	50	32.0	64	37-143	
cis-1,2-Dichloroethene	ug/L	50	51.3	103	77-123	
cis-1,3-Dichloropropene	ug/L	50	51.3	103	76-132	
Dibromochloromethane	ug/L	50	59.0	118	79-130	
Dibromomethane	ug/L	50	55.4	111	79-124	
Dichlorodifluoromethane	ug/L	50	39.4	79	29-126	
Ethyl methacrylate	ug/L	50	59.2	118	78-137	
Ethylbenzene	ug/L	50	49.9	100	76-120	
Hexachloro-1,3-butadiene	ug/L	50	52.3	105	60-131	
Iodomethane	ug/L	50	12.8	26	10-148	
Isopropylbenzene (Cumene)	ug/L	50	53.7	107	71-124	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

LABORATORY CONTROL SAMPLE: 3613798

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methyl-tert-butyl ether	ug/L	50	54.6	109	71-121	
Methylene Chloride	ug/L	50	44.9	90	71-121	
n-Butylbenzene	ug/L	50	50.8	102	68-131	
n-Hexane	ug/L	50	43.2	86	51-126	
n-Propylbenzene	ug/L	50	48.3	97	67-127	
Naphthalene	ug/L	50	55.2	110	62-143	
p-Isopropyltoluene	ug/L	50	52.9	106	72-124	
sec-Butylbenzene	ug/L	50	51.9	104	71-126	
Styrene	ug/L	50	53.0	106	80-121	
tert-Butylbenzene	ug/L	50	52.7	105	71-128	
Tetrachloroethene	ug/L	50	54.5	109	71-122	
Toluene	ug/L	50	46.7	93	74-118	
trans-1,2-Dichloroethene	ug/L	50	51.8	104	75-122	
trans-1,3-Dichloropropene	ug/L	50	53.1	106	77-126	
trans-1,4-Dichloro-2-butene	ug/L	50	50.9J	102	53-136	
Trichloroethene	ug/L	50	49.2	98	74-125	
Trichlorofluoromethane	ug/L	50	54.9	110	64-138	
Vinyl acetate	ug/L	200	331	166	74-154 L1	
Vinyl chloride	ug/L	50	44.1	88	55-139	
Xylene (Total)	ug/L	150	146	97	73-119	
4-Bromofluorobenzene (S)	%			103	79-124	
Dibromofluoromethane (S)	%			109	82-128	
Toluene-d8 (S)	%			100	73-122	

MATRIX SPIKE SAMPLE: 3613800

Parameter	Units	50372777020 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<1.0	50	44.9	90	47-139	
1,1,1-Trichloroethane	ug/L	<1.0	50	49.6	99	47-145	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	50	33.1	66	49-133	
1,1,2-Trichloroethane	ug/L	<1.0	50	39.7	79	52-136	
1,1-Dichloroethane	ug/L	<1.0	50	40.7	81	52-137	
1,1-Dichloroethene	ug/L	<1.0	50	44.4	89	53-144	
1,1-Dichloropropene	ug/L	<1.0	50	46.8	94	49-150	
1,2,3-Trichlorobenzene	ug/L	<1.0	50	37.9	76	20-153	
1,2,3-Trichloropropane	ug/L	<1.0	50	42.2	84	47-134	
1,2,4-Trichlorobenzene	ug/L	<1.0	50	36.6	73	23-141	
1,2,4-Trimethylbenzene	ug/L	<5.0	50	39.6	79	41-131	
1,2-Dibromoethane (EDB)	ug/L	<1.0	50	40.1	80	55-133	
1,2-Dichlorobenzene	ug/L	<1.0	50	37.5	75	43-133	
1,2-Dichloroethane	ug/L	<1.0	50	48.5	97	50-138	
1,2-Dichloropropane	ug/L	<1.0	50	36.6	73	54-139	
1,3,5-Trimethylbenzene	ug/L	<5.0	50	40.1	80	39-133	
1,3-Dichlorobenzene	ug/L	<1.0	50	37.6	75	41-131	
1,3-Dichloropropane	ug/L	<1.0	50	36.6	73	50-136	

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**REPORT OF LABORATORY ANALYSIS**

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

MATRIX SPIKE SAMPLE:		3613800		50372777020		Spike		MS		MS		% Rec		Qualifiers	
Parameter	Units	Result	Conc.	Result	% Rec	Result	% Rec	Limits							
1,4-Dichlorobenzene	ug/L	<1.0	50	37.7	75	41-131									
1-Methylnaphthalene	ug/L	<20.0	50	34.9	70	10-188									
2,2-Dichloropropane	ug/L	<1.0	50	43.8	88	17-141									
2-Butanone (MEK)	ug/L	<5.0	250	194	78	45-138									
2-Chlorotoluene	ug/L	<1.0	50	37.9	76	36-141									
2-Hexanone	ug/L	<5.0	250	185	74	45-135									
2-Methylnaphthalene	ug/L	<20.0	50	35.7	71	10-197									
4-Chlorotoluene	ug/L	<1.0	50	38.3	77	38-134									
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	250	188	75	46-138									
Acetone	ug/L	<20.0	250	215	86	25-151									
Acrolein	ug/L	<20.0	1000	624	62	36-168									
Acrylonitrile	ug/L	<5.0	250	177	71	47-147									
Benzene	ug/L	<1.0	50	39.1	78	53-138									
Bromobenzene	ug/L	<1.0	50	40.0	80	47-130									
Bromochloromethane	ug/L	<1.0	50	36.4	73	52-130									
Bromodichloromethane	ug/L	<1.0	50	46.5	93	50-146									
Bromoform	ug/L	<1.0	50	42.7	85	45-132									
Bromomethane	ug/L	<5.0	50	5.8	12	10-173									
Carbon disulfide	ug/L	<1.0	50	37.7	75	47-133									
Carbon tetrachloride	ug/L	<1.0	50	53.0	106	43-148									
Chlorobenzene	ug/L	<1.0	50	38.7	77	52-131									
Chloroethane	ug/L	<5.0	50	43.4	87	25-169									
Chloroform	ug/L	<1.0	50	45.4	91	54-138									
Chloromethane	ug/L	<5.0	50	21.2	42	33-137									
cis-1,2-Dichloroethene	ug/L	<1.0	50	40.7	81	50-141									
cis-1,3-Dichloropropene	ug/L	<1.0	50	37.9	76	47-135									
Dibromochloromethane	ug/L	<1.0	50	46.0	92	48-139									
Dibromomethane	ug/L	<1.0	50	41.5	83	51-141									
Dichlorodifluoromethane	ug/L	<2.0	50	26.1	52	15-130									
Ethyl methacrylate	ug/L	<20.0	50	41.8	84	51-142									
Ethylbenzene	ug/L	<1.0	50	41.0	82	50-136									
Hexachloro-1,3-butadiene	ug/L	<1.0	50	40.1	80	15-141									
Iodomethane	ug/L	<1.0	50	4.2J	8	10-145 M1									
Isopropylbenzene (Cumene)	ug/L	<1.0	50	44.7	89	46-137									
Methyl-tert-butyl ether	ug/L	<4.0	50	41.8	84	47-135									
Methylene Chloride	ug/L	<5.0	50	33.0	66	48-131									
n-Butylbenzene	ug/L	<1.0	50	39.8	80	30-138									
n-Hexane	ug/L	<5.0	50	33.8	68	35-137									
n-Propylbenzene	ug/L	<1.0	50	38.7	77	37-135									
Naphthalene	ug/L	<1.0	50	37.6	75	34-152									
p-Isopropyltoluene	ug/L	<1.0	50	41.2	82	35-136									
sec-Butylbenzene	ug/L	<1.0	50	39.9	80	36-137									
Styrene	ug/L	<1.0	50	41.2	82	46-136									
tert-Butylbenzene	ug/L	<1.0	50	41.9	84	40-137									
Tetrachloroethene	ug/L	<1.0	50	45.1	90	44-138									
Toluene	ug/L	<1.0	50	37.9	76	52-132									
trans-1,2-Dichloroethene	ug/L	<1.0	50	43.0	86	50-137									

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## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50371968

MATRIX SPIKE SAMPLE: 3613800		50372777020	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
trans-1,3-Dichloropropene	ug/L	<1.0	50	41.8	84	46-130	
trans-1,4-Dichloro-2-butene	ug/L	<5.0	50	35.8J	72	24-134	
Trichloroethene	ug/L	<1.0	50	41.6	83	49-140	
Trichlorofluoromethane	ug/L	<1.0	50	49.9	100	44-153	
Vinyl acetate	ug/L	<5.0	200	223	112	32-142	
Vinyl chloride	ug/L	<1.0	50	34.4	69	41-147	
Xylene (Total)	ug/L	<2.0	150	120	80	44-138	
4-Bromofluorobenzene (S)	%				109	79-124	
Dibromofluoromethane (S)	%				112	82-128	
Toluene-d8 (S)	%				101	73-122	

SAMPLE DUPLICATE: 3613799

Parameter	Units	50372777019	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
1,1,1,2-Tetrachloroethane	ug/L	<1.0	ND		20	
1,1,1-Trichloroethane	ug/L	<1.0	ND		20	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	ND		20	
1,1,2-Trichloroethane	ug/L	<1.0	ND		20	
1,1-Dichloroethane	ug/L	<1.0	ND		20	
1,1-Dichloroethene	ug/L	<1.0	ND		20	
1,1-Dichloropropene	ug/L	<1.0	ND		20	
1,2,3-Trichlorobenzene	ug/L	<1.0	ND		20	
1,2,3-Trichloropropane	ug/L	<1.0	ND		20	
1,2,4-Trichlorobenzene	ug/L	<1.0	ND		20	
1,2,4-Trimethylbenzene	ug/L	<5.0	ND		20	
1,2-Dibromoethane (EDB)	ug/L	<1.0	ND		20	
1,2-Dichlorobenzene	ug/L	<1.0	ND		20	
1,2-Dichloroethane	ug/L	<1.0	ND		20	
1,2-Dichloropropane	ug/L	<1.0	ND		20	
1,3,5-Trimethylbenzene	ug/L	<5.0	ND		20	
1,3-Dichlorobenzene	ug/L	<1.0	ND		20	
1,3-Dichloropropane	ug/L	<1.0	ND		20	
1,4-Dichlorobenzene	ug/L	<1.0	ND		20	
1-Methylnaphthalene	ug/L	<20.0	ND		20	
2,2-Dichloropropane	ug/L	<1.0	ND		20	
2-Butanone (MEK)	ug/L	<5.0	ND		20	
2-Chlorotoluene	ug/L	<1.0	ND		20	
2-Hexanone	ug/L	<5.0	ND		20	
2-Methylnaphthalene	ug/L	<20.0	ND		20	
4-Chlorotoluene	ug/L	<1.0	ND		20	
4-Methyl-2-pentanone (MIBK)	ug/L	<5.0	ND		20	
Acetone	ug/L	<20.0	ND		20	
Acrolein	ug/L	<20.0	ND		20	
Acrylonitrile	ug/L	<5.0	ND		20	
Benzene	ug/L	<1.0	ND		20	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50371968

SAMPLE DUPLICATE: 3613799

Parameter	Units	50372777019 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromobenzene	ug/L	<1.0	ND		20	
Bromochloromethane	ug/L	<1.0	ND		20	
Bromodichloromethane	ug/L	<1.0	ND		20	
Bromoform	ug/L	<1.0	ND		20	
Bromomethane	ug/L	<5.0	ND		20	
Carbon disulfide	ug/L	<1.0	ND		20	
Carbon tetrachloride	ug/L	<1.0	ND		20	
Chlorobenzene	ug/L	<1.0	ND		20	
Chloroethane	ug/L	<5.0	ND		20	
Chloroform	ug/L	<1.0	ND		20	
Chloromethane	ug/L	<5.0	ND		20	
cis-1,2-Dichloroethene	ug/L	<1.0	ND		20	
cis-1,3-Dichloropropene	ug/L	<1.0	ND		20	
Dibromochloromethane	ug/L	<1.0	ND		20	
Dibromomethane	ug/L	<1.0	ND		20	
Dichlorodifluoromethane	ug/L	<2.0	ND		20	
Ethyl methacrylate	ug/L	<20.0	ND		20	
Ethylbenzene	ug/L	<1.0	ND		20	
Hexachloro-1,3-butadiene	ug/L	<1.0	ND		20	
Iodomethane	ug/L	<1.0	ND		20	
Isopropylbenzene (Cumene)	ug/L	<1.0	ND		20	
Methyl-tert-butyl ether	ug/L	<4.0	ND		20	
Methylene Chloride	ug/L	<5.0	ND		20	
n-Butylbenzene	ug/L	<1.0	ND		20	
n-Hexane	ug/L	<5.0	ND		20	
n-Propylbenzene	ug/L	<1.0	ND		20	
Naphthalene	ug/L	<1.0	ND		20	
p-Isopropyltoluene	ug/L	<1.0	ND		20	
sec-Butylbenzene	ug/L	<1.0	ND		20	
Styrene	ug/L	<1.0	ND		20	
tert-Butylbenzene	ug/L	<1.0	ND		20	
Tetrachloroethene	ug/L	<1.0	ND		20	
Toluene	ug/L	<1.0	ND		20	
trans-1,2-Dichloroethene	ug/L	<1.0	ND		20	
trans-1,3-Dichloropropene	ug/L	<1.0	ND		20	
trans-1,4-Dichloro-2-butene	ug/L	<5.0	ND		20	
Trichloroethene	ug/L	<1.0	ND		20	
Trichlorofluoromethane	ug/L	<1.0	ND		20	
Vinyl acetate	ug/L	<5.0	ND		20	
Vinyl chloride	ug/L	<1.0	ND		20	
Xylene (Total)	ug/L	<2.0	ND		20	
4-Bromofluorobenzene (S)	%	102	103			
Dibromofluoromethane (S)	%	115	112			
Toluene-d8 (S)	%	97	97			

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### QUALIFIERS

Project: MPL Putnam

Pace Project No.: 50371968

#### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

#### BATCH QUALIFIERS

Batch: 328583

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 328928

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

#### ANALYTE QUALIFIERS

1d Neither matrix spike nor matrix precision data could be provided for this analytical batch due to insufficient sample volume.

C0 Result confirmed by second analysis.

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

N3 Accreditation is not offered by the relevant laboratory accrediting body for this parameter.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MPL Putnam

Pace Project No.: 50371968

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50371968001	MW-01	EPA 8260B	328583		
50371968002	MW-02	EPA 8260B	328583		
50371968003	MW-03	EPA 8260B	328583		
50371968004	MW-04	EPA 8260B	328583		
50371968005	MW-05	EPA 8260B	328583		
50371968006	MW-06	EPA 8260B	328583		
50371968007	MW-07	EPA 8260B	328583		
50371968008	MW-08	EPA 8260B	328583		
50371968009	MW-09	EPA 8260B	328583		
50371968010	MW-10	EPA 8260B	328583		
50371968011	MW-11	EPA 8260B	328583		
50371968012	MW-12	EPA 8260B	328583		
50371968013	MW-13	EPA 8260B	328583		
50371968014	MW-14	EPA 8260B	328583		
50371968015	MW-15	EPA 8260B	328583		
50371968016	MW-16	EPA 8260B	328583		
50371968017	MW-17	EPA 8260B	328583		
50371968018	MW-18	EPA 8260B	328583		
50371968019	MW-19	EPA 8260B	328583		
50371968020	DUP-01	EPA 8260B	328583		
50371968021	Trip Blank	EPA 8260B	328635		
50371968001	MW-01	EPA 8260C/5030C	346776		
50371968002	MW-02	EPA 8260C/5030C	346776		
50371968003	MW-03	EPA 8260C/5030C	346776		
50371968004	MW-04	EPA 8260C/5030C	346776		
50371968005	MW-05	EPA 8260C/5030C	346776		
50371968006	MW-06	EPA 8260C/5030C	346776		
50371968007	MW-07	EPA 8260C/5030C	346776		
50371968008	MW-08	EPA 8260C/5030C	346776		
50371968009	MW-09	EPA 8260C/5030C	346776		
50371968010	MW-10	EPA 8260C/5030C	346776		
50371968011	MW-11	EPA 8260C/5030C	346776		
50371968012	MW-12	EPA 8260C/5030C	346776		
50371968013	MW-13	EPA 8260C/5030C	346776		
50371968014	MW-14	EPA 8260C/5030C	346776		
50371968015	MW-15	EPA 8260C/5030C	346969		
50371968016	MW-16	EPA 8260C/5030C	346969		
50371968017	MW-17	EPA 8260C/5030C	346969		
50371968018	MW-18	EPA 8260C/5030C	346776		
50371968019	MW-19	EPA 8260C/5030C	346776		
50371968020	DUP-01	EPA 8260C/5030C	346776		
50371968021	Trip Blank	EPA 8260C/5030C	346969		
50371968001	MW-01	EPA 5030B/8260	787863		
50371968002	MW-02	EPA 5030B/8260	787863		
50371968003	MW-03	EPA 5030B/8260	788343		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MPL Putnam

Pace Project No.: 50371968

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50371968004	MW-04	EPA 5030B/8260	788343		
50371968005	MW-05	EPA 5030B/8260	788343		
50371968006	MW-06	EPA 5030B/8260	788343		
50371968007	MW-07	EPA 5030B/8260	788343		
50371968008	MW-08	EPA 5030B/8260	788343		
50371968009	MW-09	EPA 5030B/8260	788343		
50371968010	MW-10	EPA 5030B/8260	788343		
50371968011	MW-11	EPA 5030B/8260	788972		
50371968012	MW-12	EPA 5030B/8260	789844		
50371968013	MW-13	EPA 5030B/8260	789844		
50371968014	MW-14	EPA 5030B/8260	788343		
50371968015	MW-15	EPA 5030B/8260	788348		
50371968016	MW-16	EPA 5030B/8260	788348		
50371968017	MW-17	EPA 5030B/8260	788348		
50371968018	MW-18	EPA 5030B/8260	788348		
50371968019	MW-19	EPA 5030B/8260	788348		
50371968020	DUP-01	EPA 5030B/8260	788972		
50371968021	Trip Blank	EPA 5030B/8260	788348		

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Scan QR Code for instructions

Company Name: Antea Group MI\_Marathon  
 Street Address: 40000 Grand River, Novi, MI 48375  
 Customer Project #:   
 Project Name: MPL Putnam  
 Site Collection Info/Facility ID (as applicable):

Contact/Report To: Jason Phillips  
 Phone #: (248)699-0244  
 E-Mail: jason.phillips@anteagroup.us  
 Cc E-Mail:  
 Invoice To: Accounts Payable  
 Invoice E-Mail: tina.sayer@pacelabs.com  
 Purchase Order # (if applicable):  
 Quote #:

Specify Container Size \*\*  
 Identify Container Preservative Type\*\*\*  
 Analysis Requested

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET  
 Data Deliverables:  
 [ ] Level II [ ] Level III [ ] Level IV  
 [ ] EQUIS  
 [ ] Other

County / State origin of sample(s): Indiana  
 Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No  
 Rush (Pre-approval required):  
 [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other  
 Date Results Requested:  
 Field Filtered (if applicable): [ ] Yes [ ] No  
 Analysis:

8260 MSV Low Level  
 Heptane 8260-Pace NOLA  
 Nonane 8260-Pace Melville NY  
 Proj. Mgr: Tina Sayer  
 AcctNum / Client ID:  
 Table #:  
 Profile / Template: 11031  
 Prelog / Bottle Ord. ID: EZ 3060219  
 Sample Comment  
 Preservation non-conformance identified for sample

\* Matrix Codes (Insert in Matrix box below): Drinking Water (GW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start		Collected or Composite End		# Cont.	Res. Chlorine	
			Date	Time	Date	Time		Results	Units
MW-11	GW	6	4/30/24	1250	—	—	3		
MW-12	GW	6	4/30/24	1717	—	—	3		
MW-13	GW	6	5/01/24	0910	—	—	3		
MW-14	GW	6	5/01/24	0858	—	—	3		
MW-15	GW	6	4/30/24	1000	—	—	3		
MW-16	GW	6	5/01/24	0745	—	—	3		
MW-17	GW	6	4/30/24	0910	—	—	3		
MW-18	GW	6	4/30/24	1245	—	—	3		
MW-19	GW	6	4/30/24	1615	—	—	3		
Dup-01	GW	6	—	—	—	—	3		

Additional Instructions from Pace:  
 DI terracores have a 48 hour hold time

Collected By: (Printed Name) Amanda Strayton  
 Signature: *[Signature]*

Customer Remarks / Special Conditions / Possible Hazards:  
 # Coolers: 3 Thermometer ID: H Correction Factor (°C): 0.0 Obs. Temp. (°C): 1.1 Corrected Temp. (°C): 1.1 On Ice: Y

Relinquished by/Company: (Signature) Antea Group *[Signature]*  
 Date/Time: 5/1/24 1400  
 Relinquished by/Company: (Signature)  
 Date/Time:  
 Relinquished by/Company: (Signature)  
 Date/Time:  
 Relinquished by/Company: (Signature)  
 Date/Time:

Received by/Company: (Signature) *[Signature]*  
 Date/Time:  
 Received by/Company: (Signature)  
 Date/Time:  
 Received by/Company: (Signature)  
 Date/Time:  
 Received by/Company: (Signature)  
 Date/Time:

Tracking Number:  
 Delivered by: [X] Person [ ] Courier  
 [ ] FedEx [ ] UPS [ ] Other  
 Page: 1 of 1



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Scan QR Code for instructions

Company Name: Antea Group MI\_Marathon  
 Street Address: 40000 Grand River, Novi, MI 48375

Customer Project #:   
 Project Name: MPL Putnam

Site Collection Info/Facility ID (as applicable):

Contact/Report To: Jason Phillips  
 Phone #: (248)699-0244  
 E-Mail: jason.phillips@anteagroup.us  
 Cc E-Mail:

Invoice To: Accounts Payable  
 Invoice E-Mail: tina.sayer@pacelabs.com

Purchase Order # (if applicable):  
 Quote #:

Specify Container Size \*\*  
 Identify Container Preservative Type\*\*\*  
 Analysis Requested

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET  
 Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV  
 [ ] EQUIS  
 [ ] Other

County / State origin of sample(s): Indiana

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):  
 [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other \_\_\_\_\_

Date Results Requested: \_\_\_\_\_  
 Field Filtered (if applicable): [ ] Yes [ ] No  
 Analysis:

8260 MSV Low Level  
 Heptane 8260-Pace NOLA  
 Nonane 8260-Pace Melville NY

Proj. Mgr:  
**Tina Sayer**  
 AcctNum / Client ID:  
 Table #:  
 Profile / Template:  
**11031**  
 Prelog / Bottle Ord. ID:  
**EZ 3060219**  
 Sample Comment

Lab Use Only  
 Preservation non-conformance identified for sample

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start		Collected or Composite End		# Cont.	Res. Chlorine		8260 MSV Low Level	Heptane 8260-Pace NOLA	Nonane 8260-Pace Melville NY	Sample Comment
			Date	Time	Date	Time		Results	Units				
SS-03-RB	SED	6	5/10/24	1020	—	—				X			031
SS-03-LB	SED	6	5/10/24	1025	—	—				X			032
SS-04-RB	SED	6	5/10/24	1030	—	—				X			033
SS-04-LB	SED	6	5/10/24	1035	—	—				X			034
Dup-03	SED	6	—	—	—	—				X			035

Additional Instructions from Pace\*:  
**DI terracores have a 48 hour hold time**

Relinquished by/Company: (Signature)  
*Antea Group*  
 Date/Time: 5/11/24 1400

Collected By: (Printed Name) **Amanda Strayton**  
 Signature: *Amanda Strayton*

Relinquished by/Company: (Signature)  
*Jeff Evans*  
 Date/Time: 5/11/24 1400

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers	Thermometer ID	Correction Factor (°C)	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice
3	H	0.0	1.1	1.1	Y

Tracking Number:  
 Delivered by: [X] In-Person [ ] Courier  
 [ ] FedEx [ ] UPS [ ] Other

Page: 1 of 1



**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 05/01/24 1410 JF

1. Courier:  FED EX |  UPS |  CLIENT |  PACE |  NOW/JETT |  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes |  No  
 (If yes)Seals Intact:  Yes |  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): 1.1 | 1.1 | 0.8 | 0.8 | 0.6 | 0.6  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap |  Bubble Bags  
 None |  Other \_\_\_\_\_

6. Ice Type:  Wet |  Blue |  None

7. Was the PM notified of out of temp cooler?:  Yes |  No  
 Cooler temp should be above freezing to 6°C

8. EZ Bottle Order?  Yes |  No

If yes but not on COC what is the EZ Bottle Order Number?: EZ 3060219

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			<input checked="" type="checkbox"/>
Short Hold Time Analysis (48 hours or less)? Analysis: <u>DI</u>	<input checked="" type="checkbox"/>		Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>1445</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?	<input checked="" type="checkbox"/>		
Extra labels on Terracore Vials? (soils only)		<input checked="" type="checkbox"/>	Trip Blank Custody Seals?:	<input checked="" type="checkbox"/>		

COMMENTS: UG9H trip blanks sent with terracores - JF 5/1/24. Also, a set of UG9H trip blanks was sent with SW but not recorded on COC - JF 5/1/24  
One UG9H from sample point MW-14 was received empty - JF 5/1/24















# Pace Container Order #3104650

**Addresses**  
**Order By :**  
 Company Antea Group MI\_Marathon  
 Contact Jason Phillips  
 Email jason.phillips@anteagroup.us  
 Address 40000 Grand River  
 Address 2 Suite 504  
 City Novi  
 State MI Zip 48375  
 Phone (248)699-0244

**Ship To :**  
 Company Hold for Client Pick Up  
 Contact  
 Email  
 Address  
 Address 2  
 City  
 State Zip  
 Phone

**Return To:**  
 Company Indianapolis, IN (Pace Analytical  
 Contact Tina Sayer  
 Email tina.sayer@pacelabs.com  
 Address 7726 Moller Road  
 Address 2  
 City Indianapolis  
 State IN Zip 46268  
 Phone (317)228-3127

**Info**  
 Project Name MPL Putnam Due Date 04/29/2024 Profile 11031 Quote  
 Project Manager Gaines, Amanda Return Date Carrier Client Pick Up Location IN

**Return Shipping Labels**  
 Return Label Type  
 No Shipper  
 With Shipper

**Bottle Labels**  
 Blank  
 Pre-Printed No Sample IDs  
 Pre-Printed With Sample IDs

**Bottles**  
 Boxed Cases  
 Individually Wrapped  
 Grouped By Sample ID/Matrix

**Trip Blanks**  
 Include Trip Blanks

**Misc**  
 Sampling Instructions  
 Custody Seal  
 Temp. Blanks  
 Coolers 2 extra sm  
 Syringes  
 Extra Bubble Wrap  
 Short Hold/Rush Stickers  
 DI Water  
 USDA Regulated Soils  
 Dry Weight

**COC Options**  
 Number of Blanks  
 Pre-Printed 3

# of Samp Matrix	Analysis	Qty / Samp	Container	Total	# of QC	Lot #	Notes
5	WT 8260 MSV Low Level	3	40mL clear VOA vial HCl	15			
5	WT Heptane 8260-Pace NOLA	3	40mL clear VOA vial HCl	15			
5	WT Nonane 8260- Pace Melville NY	3	40mL clear VOA vial HCl	15			
1	WT 8260 MSV Low Level	3	40mL clear vial HCl +DI Water	3			
1	WT Heptane 8260-Pace NOLA	3	40mL clear vial HCl +DI Water	3			
1	WT Nonane 8260- Pace Melville NY	3	40mL clear vial HCl +DI Water	3			

**Hazard Shipping Placard In Place : N/A**

\*Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.  
 Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.  
 Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.  
 Payment term are net 30 days.  
 Please include the proposal number on the chain of custody to ensure proper billing.

**LAB USE:**  
 Ship Date : 04/26/2024  
 Prepared By: TRH  
 Verified By: LLA

**CLIENT USE (Optional):**  
 Date Rec'd:  
 Received By:

**Sample Notes :**  
 Please return samples on ice

## Appendix C – Sediment Laboratory Analytical Data



June 13, 2024

Mr. Jason Phillips  
Antea Group  
40000 Grand River  
Suite 504  
Novi, MI 48375

RE: Project: MPL Putnam  
Pace Project No.: 50373379

Dear Mr. Phillips:

Enclosed are the analytical results for sample(s) received by the laboratory on May 01, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Melville
- Pace Analytical Services - New Orleans

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

Sincerely,

Amanda Gaines  
amanda.gaines@pacelabs.com  
(317)228-3100  
Project Manager

Enclosures

cc: AGDataView  
Blake Ford, Antea Group



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: MPL Putnam

Pace Project No.: 50373379

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#### Pace Analytical Services New Orleans

Florida Department of Health (NELAC): E87595

Illinois Environmental Protection Agency: 2000662023-7

Kansas Department of Health and Environment (NELAC): E-10266

Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006

Texas Commission on Env. Quality (NELAC): T104704405-23-18

U.S. Dept. of Agriculture Foreign Soil Import: 525-23-117-89728

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Washington Dept of Ecology #: C1081

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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#### Pace Analytical Services Long Island

575 Broad Hollow Rd, Melville, NY 11747

Connecticut Certification #: PH-0435

Delaware Certification # NY 10478

Maryland Certification #: 208

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

New Jersey Certification #: NY158

New York Certification #: 10478 Primary Accrediting Body

Pennsylvania Certification #: 68-00350

Rhode Island Certification #: LAO00340

Virginia Certification # 460302

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### SAMPLE SUMMARY

Project: MPL Putnam

Pace Project No.: 50373379

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50371968027	SS-01-RB	Solid	05/01/24 10:00	05/01/24 14:00
50371968028	SS-01-LB	Solid	05/01/24 10:05	05/01/24 14:00
50371968029	SS-02-RB	Solid	05/01/24 10:10	05/01/24 14:00
50371968030	SS-02-LB	Solid	05/01/24 10:15	05/01/24 14:00
50371968031	SS-03-RB	Solid	05/01/24 10:20	05/01/24 14:00
50371968032	SS-03-LB	Solid	05/01/24 10:25	05/01/24 14:00
50371968033	SS-04-RB	Solid	05/01/24 10:30	05/01/24 14:00
50371968034	SS-04-LB	Solid	05/01/24 10:35	05/01/24 14:00
50371968035	DUP-03	Solid	05/01/24 08:00	05/01/24 14:00
50371968037	Trip Blank (SED)	Water	05/01/24 08:00	05/01/24 14:00

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### SAMPLE ANALYTE COUNT

Project: MPL Putnam

Pace Project No.: 50373379

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50371968027	SS-01-RB	EPA 8260	JRP	4	PASI-N
		EPA 8260D	KGG	4	PASI-L
		EPA 8260	SLB	75	PASI-I
		SM 2540G	QAK	1	PASI-I
50371968028	SS-01-LB	EPA 8260	JRP	4	PASI-N
		EPA 8260D	KGG	4	PASI-L
		EPA 8260	SLB	75	PASI-I
		SM 2540G	QAK	1	PASI-I
50371968029	SS-02-RB	EPA 8260C	KGG	4	PASI-L
		EPA 8260	SLB	75	PASI-I
		EPA 8260	JRP	4	PASI-N
		SM 2540G	QAK	1	PASI-I
50371968030	SS-02-LB	EPA 8260	JRP	4	PASI-N
		EPA 8260D	KGG	4	PASI-L
		EPA 8260	SLB	75	PASI-I
		SM 2540G	QAK	1	PASI-I
50371968031	SS-03-RB	EPA 8260	JRP	4	PASI-N
		EPA 8260D	KGG	4	PASI-L
		EPA 8260	BES	75	PASI-I
		SM 2540G	QAK	1	PASI-I
50371968032	SS-03-LB	EPA 8260	JRP	4	PASI-N
		EPA 8260D	KGG	4	PASI-L
		EPA 8260	BES	75	PASI-I
		SM 2540G	QAK	1	PASI-I
50371968033	SS-04-RB	EPA 8260	JRP	4	PASI-N
		EPA 8260D	KGG	4	PASI-L
		EPA 8260	BES	75	PASI-I
		SM 2540G	QAK	1	PASI-I
50371968034	SS-04-LB	EPA 8260	JRP	4	PASI-N
		EPA 8260D	KGG	4	PASI-L
		EPA 8260	BES	75	PASI-I
		SM 2540G	QAK	1	PASI-I
50371968035	DUP-03	EPA 8260C	KGG	4	PASI-L
		EPA 8260	TMW	75	PASI-I
		EPA 8260	JRP	4	PASI-N
		SM 2540G	QAK	1	PASI-I
50371968037	Trip Blank (SED)	EPA 8260B	JRP	4	PASI-N

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### SAMPLE ANALYTE COUNT

Project: MPL Putnam  
Pace Project No.: 50373379

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I

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PASI-I = Pace Analytical Services - Indianapolis  
PASI-L = Pace Analytical Services - Melville  
PASI-N = Pace Analytical Services - New Orleans

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-01-RB Lab ID: 50371968027 Collected: 05/01/24 10:00 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - New Orleans						
n-Heptane	ND	ug/kg	6.0	1	05/13/24 11:05	05/13/24 12:15	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	99	%	75-125	1	05/13/24 11:05	05/13/24 12:15	2037-26-5	
4-Bromofluorobenzene (S)	98	%	64-139	1	05/13/24 11:05	05/13/24 12:15	460-00-4	
Dibromofluoromethane (S)	103	%	66-143	1	05/13/24 11:05	05/13/24 12:15	1868-53-7	
<b>8260D MSV 5035A-L Low Level</b>		Analytical Method: EPA 8260D Preparation Method: EPA 5035A-L Pace Analytical Services - Melville						
n-Nonane	ND	ug/kg	2.1	1	05/06/24 06:45	05/06/24 11:35	111-84-2	N3
<b>Surrogates</b>								
Toluene-d8 (S)	95	%	69-117	1	05/06/24 06:45	05/06/24 11:35	2037-26-5	
4-Bromofluorobenzene (S)	101	%	69-121	1	05/06/24 06:45	05/06/24 11:35	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	77-120	1	05/06/24 06:45	05/06/24 11:35	17060-07-0	
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Acetone	ND	mg/kg	0.13	1		05/07/24 17:26	67-64-1	
Acrolein	ND	mg/kg	0.13	1		05/07/24 17:26	107-02-8	
Acrylonitrile	ND	mg/kg	0.13	1		05/07/24 17:26	107-13-1	
Benzene	ND	mg/kg	0.0064	1		05/07/24 17:26	71-43-2	
Bromobenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	108-86-1	
Bromochloromethane	ND	mg/kg	0.0064	1		05/07/24 17:26	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0064	1		05/07/24 17:26	75-27-4	
Bromoform	ND	mg/kg	0.0064	1		05/07/24 17:26	75-25-2	
Bromomethane	ND	mg/kg	0.0064	1		05/07/24 17:26	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.032	1		05/07/24 17:26	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	98-06-6	
Carbon disulfide	ND	mg/kg	0.013	1		05/07/24 17:26	75-15-0	
Carbon tetrachloride	ND	mg/kg	0.0064	1		05/07/24 17:26	56-23-5	
Chlorobenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	108-90-7	
Chloroethane	ND	mg/kg	0.0064	1		05/07/24 17:26	75-00-3	
Chloroform	ND	mg/kg	0.0064	1		05/07/24 17:26	67-66-3	
Chloromethane	ND	mg/kg	0.0064	1		05/07/24 17:26	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0064	1		05/07/24 17:26	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0064	1		05/07/24 17:26	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0064	1		05/07/24 17:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0064	1		05/07/24 17:26	106-93-4	
Dibromomethane	ND	mg/kg	0.0064	1		05/07/24 17:26	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.13	1		05/07/24 17:26	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0064	1		05/07/24 17:26	75-71-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-01-RB Lab ID: 50371968027 Collected: 05/01/24 10:00 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
1,1-Dichloroethane	ND	mg/kg	0.0064	1		05/07/24 17:26	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0064	1		05/07/24 17:26	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0064	1		05/07/24 17:26	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0064	1		05/07/24 17:26	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0064	1		05/07/24 17:26	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0064	1		05/07/24 17:26	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0064	1		05/07/24 17:26	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0064	1		05/07/24 17:26	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0064	1		05/07/24 17:26	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0064	1		05/07/24 17:26	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0064	1		05/07/24 17:26	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	100-41-4	
Ethyl methacrylate	ND	mg/kg	0.13	1		05/07/24 17:26	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0064	1		05/07/24 17:26	87-68-3	
n-Hexane	ND	mg/kg	0.0064	1		05/07/24 17:26	110-54-3	
2-Hexanone	ND	mg/kg	0.13	1		05/07/24 17:26	591-78-6	
Iodomethane	ND	mg/kg	0.13	1		05/07/24 17:26	74-88-4	L1
Isopropylbenzene (Cumene)	ND	mg/kg	0.0064	1		05/07/24 17:26	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0064	1		05/07/24 17:26	99-87-6	
Methylene Chloride	ND	mg/kg	0.026	1		05/07/24 17:26	75-09-2	
1-Methylnaphthalene	ND	mg/kg	0.013	1		05/07/24 17:26	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.013	1		05/07/24 17:26	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.032	1		05/07/24 17:26	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0064	1		05/07/24 17:26	1634-04-4	
Naphthalene	ND	mg/kg	0.0064	1		05/07/24 17:26	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	103-65-1	
Styrene	ND	mg/kg	0.0064	1		05/07/24 17:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0064	1		05/07/24 17:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0064	1		05/07/24 17:26	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0064	1		05/07/24 17:26	127-18-4	
Toluene	ND	mg/kg	0.0064	1		05/07/24 17:26	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0064	1		05/07/24 17:26	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0064	1		05/07/24 17:26	79-00-5	
Trichloroethene	ND	mg/kg	0.0064	1		05/07/24 17:26	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0064	1		05/07/24 17:26	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0064	1		05/07/24 17:26	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0064	1		05/07/24 17:26	108-67-8	
Vinyl acetate	ND	mg/kg	0.13	1		05/07/24 17:26	108-05-4	
Vinyl chloride	ND	mg/kg	0.0064	1		05/07/24 17:26	75-01-4	
Xylene (Total)	ND	mg/kg	0.013	1		05/07/24 17:26	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	117	%	75-135	1		05/07/24 17:26	1868-53-7	

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: **SS-01-RB** Lab ID: **50371968027** Collected: 05/01/24 10:00 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
<b>Surrogates</b>								
Toluene-d8 (S)	97	%.	65-148	1		05/07/24 17:26	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	63-132	1		05/07/24 17:26	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	<b>19.9</b>	%	0.10	1		05/10/24 14:12		N2

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-01-LB Lab ID: 50371968028 Collected: 05/01/24 10:05 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - New Orleans						
n-Heptane	ND	ug/kg	4.9	1	05/13/24 11:05	05/13/24 12:34	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	75-125	1	05/13/24 11:05	05/13/24 12:34	2037-26-5	
4-Bromofluorobenzene (S)	102	%	64-139	1	05/13/24 11:05	05/13/24 12:34	460-00-4	
Dibromofluoromethane (S)	106	%	66-143	1	05/13/24 11:05	05/13/24 12:34	1868-53-7	
<b>8260D MSV 5035A-L Low Level</b>		Analytical Method: EPA 8260D Preparation Method: EPA 5035A-L Pace Analytical Services - Melville						
n-Nonane	ND	ug/kg	1.2	1	05/06/24 06:45	05/06/24 11:56	111-84-2	N3
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	69-117	1	05/06/24 06:45	05/06/24 11:56	2037-26-5	
4-Bromofluorobenzene (S)	93	%	69-121	1	05/06/24 06:45	05/06/24 11:56	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	77-120	1	05/06/24 06:45	05/06/24 11:56	17060-07-0	
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Acetone	ND	mg/kg	0.14	1		05/07/24 17:56	67-64-1	
Acrolein	ND	mg/kg	0.14	1		05/07/24 17:56	107-02-8	
Acrylonitrile	ND	mg/kg	0.14	1		05/07/24 17:56	107-13-1	
Benzene	ND	mg/kg	0.0072	1		05/07/24 17:56	71-43-2	
Bromobenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	108-86-1	
Bromochloromethane	ND	mg/kg	0.0072	1		05/07/24 17:56	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0072	1		05/07/24 17:56	75-27-4	
Bromoform	ND	mg/kg	0.0072	1		05/07/24 17:56	75-25-2	
Bromomethane	ND	mg/kg	0.0072	1		05/07/24 17:56	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.036	1		05/07/24 17:56	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	98-06-6	
Carbon disulfide	ND	mg/kg	0.014	1		05/07/24 17:56	75-15-0	
Carbon tetrachloride	ND	mg/kg	0.0072	1		05/07/24 17:56	56-23-5	
Chlorobenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	108-90-7	
Chloroethane	ND	mg/kg	0.0072	1		05/07/24 17:56	75-00-3	
Chloroform	ND	mg/kg	0.0072	1		05/07/24 17:56	67-66-3	
Chloromethane	ND	mg/kg	0.0072	1		05/07/24 17:56	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0072	1		05/07/24 17:56	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0072	1		05/07/24 17:56	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0072	1		05/07/24 17:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0072	1		05/07/24 17:56	106-93-4	
Dibromomethane	ND	mg/kg	0.0072	1		05/07/24 17:56	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.14	1		05/07/24 17:56	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0072	1		05/07/24 17:56	75-71-8	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-01-LB Lab ID: 50371968028 Collected: 05/01/24 10:05 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
1,1-Dichloroethane	ND	mg/kg	0.0072	1		05/07/24 17:56	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0072	1		05/07/24 17:56	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0072	1		05/07/24 17:56	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0072	1		05/07/24 17:56	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0072	1		05/07/24 17:56	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0072	1		05/07/24 17:56	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0072	1		05/07/24 17:56	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0072	1		05/07/24 17:56	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0072	1		05/07/24 17:56	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0072	1		05/07/24 17:56	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0072	1		05/07/24 17:56	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	100-41-4	
Ethyl methacrylate	ND	mg/kg	0.14	1		05/07/24 17:56	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0072	1		05/07/24 17:56	87-68-3	
n-Hexane	ND	mg/kg	0.0072	1		05/07/24 17:56	110-54-3	
2-Hexanone	ND	mg/kg	0.14	1		05/07/24 17:56	591-78-6	
Iodomethane	ND	mg/kg	0.14	1		05/07/24 17:56	74-88-4	L1
Isopropylbenzene (Cumene)	ND	mg/kg	0.0072	1		05/07/24 17:56	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0072	1		05/07/24 17:56	99-87-6	
Methylene Chloride	ND	mg/kg	0.029	1		05/07/24 17:56	75-09-2	
1-Methylnaphthalene	ND	mg/kg	0.014	1		05/07/24 17:56	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.014	1		05/07/24 17:56	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.036	1		05/07/24 17:56	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0072	1		05/07/24 17:56	1634-04-4	
Naphthalene	ND	mg/kg	0.0072	1		05/07/24 17:56	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	103-65-1	
Styrene	ND	mg/kg	0.0072	1		05/07/24 17:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0072	1		05/07/24 17:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0072	1		05/07/24 17:56	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0072	1		05/07/24 17:56	127-18-4	
Toluene	ND	mg/kg	0.0072	1		05/07/24 17:56	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0072	1		05/07/24 17:56	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0072	1		05/07/24 17:56	79-00-5	
Trichloroethene	ND	mg/kg	0.0072	1		05/07/24 17:56	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0072	1		05/07/24 17:56	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0072	1		05/07/24 17:56	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0072	1		05/07/24 17:56	108-67-8	
Vinyl acetate	ND	mg/kg	0.14	1		05/07/24 17:56	108-05-4	
Vinyl chloride	ND	mg/kg	0.0072	1		05/07/24 17:56	75-01-4	
Xylene (Total)	ND	mg/kg	0.014	1		05/07/24 17:56	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	119	%	75-135	1		05/07/24 17:56	1868-53-7	

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: **SS-01-LB** Lab ID: **50371968028** Collected: 05/01/24 10:05 Received: 05/01/24 14:00 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
<b>Surrogates</b>								
Toluene-d8 (S)	99	%.	65-148	1		05/07/24 17:56	2037-26-5	
4-Bromofluorobenzene (S)	92	%.	63-132	1		05/07/24 17:56	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	<b>21.3</b>	%	0.10	1		05/13/24 16:05		N2

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### ANALYTICAL RESULTS

Project: MPL Putnam  
Pace Project No.: 50373379

Sample: **SS-02-RB** Lab ID: **50371968029** Collected: 05/01/24 10:10 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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**8260 MSV 5035A-H Med Level** Analytical Method: EPA 8260C Preparation Method: EPA 5035A-H/5030C  
Pace Analytical Services - Melville

n-Nonane	<b>8970</b>	ug/kg	108	1	05/07/24 05:54	05/07/24 08:03	111-84-2	N3
<b>Surrogates</b>								
Toluene-d8 (S)	98	%	69-117	1	05/07/24 05:54	05/07/24 08:03	2037-26-5	
4-Bromofluorobenzene (S)	102	%	69-121	1	05/07/24 05:54	05/07/24 08:03	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	77-120	1	05/07/24 05:54	05/07/24 08:03	17060-07-0	

**8260 MSV 5035A VOA** Analytical Method: EPA 8260  
Pace Analytical Services - Indianapolis

Acetone	ND	mg/kg	7.9	50		05/07/24 18:26	67-64-1	
Acrolein	ND	mg/kg	7.9	50		05/07/24 18:26	107-02-8	
Acrylonitrile	ND	mg/kg	7.9	50		05/07/24 18:26	107-13-1	
Benzene	<b>0.95</b>	mg/kg	0.39	50		05/07/24 18:26	71-43-2	
Bromobenzene	ND	mg/kg	0.39	50		05/07/24 18:26	108-86-1	
Bromochloromethane	ND	mg/kg	0.39	50		05/07/24 18:26	74-97-5	
Bromodichloromethane	ND	mg/kg	0.39	50		05/07/24 18:26	75-27-4	
Bromoform	ND	mg/kg	0.39	50		05/07/24 18:26	75-25-2	
Bromomethane	ND	mg/kg	0.39	50		05/07/24 18:26	74-83-9	
2-Butanone (MEK)	ND	mg/kg	2.0	50		05/07/24 18:26	78-93-3	
n-Butylbenzene	ND	mg/kg	0.39	50		05/07/24 18:26	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.39	50		05/07/24 18:26	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.39	50		05/07/24 18:26	98-06-6	
Carbon disulfide	ND	mg/kg	0.79	50		05/07/24 18:26	75-15-0	
Carbon tetrachloride	ND	mg/kg	0.39	50		05/07/24 18:26	56-23-5	
Chlorobenzene	ND	mg/kg	0.39	50		05/07/24 18:26	108-90-7	
Chloroethane	ND	mg/kg	0.39	50		05/07/24 18:26	75-00-3	
Chloroform	ND	mg/kg	0.39	50		05/07/24 18:26	67-66-3	
Chloromethane	ND	mg/kg	0.39	50		05/07/24 18:26	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.39	50		05/07/24 18:26	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.39	50		05/07/24 18:26	106-43-4	
Dibromochloromethane	ND	mg/kg	0.39	50		05/07/24 18:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.39	50		05/07/24 18:26	106-93-4	
Dibromomethane	ND	mg/kg	0.39	50		05/07/24 18:26	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.39	50		05/07/24 18:26	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.39	50		05/07/24 18:26	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.39	50		05/07/24 18:26	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	7.9	50		05/07/24 18:26	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.39	50		05/07/24 18:26	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.39	50		05/07/24 18:26	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.39	50		05/07/24 18:26	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.39	50		05/07/24 18:26	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.39	50		05/07/24 18:26	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.39	50		05/07/24 18:26	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.39	50		05/07/24 18:26	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.39	50		05/07/24 18:26	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.39	50		05/07/24 18:26	594-20-7	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-02-RB Lab ID: 50371968029 Collected: 05/01/24 10:10 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
1,1-Dichloropropene	ND	mg/kg	0.39	50		05/07/24 18:26	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.39	50		05/07/24 18:26	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.39	50		05/07/24 18:26	10061-02-6	
Ethylbenzene	ND	mg/kg	0.39	50		05/07/24 18:26	100-41-4	
Ethyl methacrylate	ND	mg/kg	7.9	50		05/07/24 18:26	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg	0.39	50		05/07/24 18:26	87-68-3	
n-Hexane	<b>63.6</b>	mg/kg	3.9	500		05/07/24 18:57	110-54-3	
2-Hexanone	ND	mg/kg	7.9	50		05/07/24 18:26	591-78-6	
Iodomethane	ND	mg/kg	7.9	50		05/07/24 18:26	74-88-4	L1
Isopropylbenzene (Cumene)	ND	mg/kg	0.39	50		05/07/24 18:26	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.39	50		05/07/24 18:26	99-87-6	
Methylene Chloride	ND	mg/kg	1.6	50		05/07/24 18:26	75-09-2	
1-Methylnaphthalene	ND	mg/kg	0.79	50		05/07/24 18:26	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.79	50		05/07/24 18:26	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	2.0	50		05/07/24 18:26	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.39	50		05/07/24 18:26	1634-04-4	
Naphthalene	ND	mg/kg	0.39	50		05/07/24 18:26	91-20-3	
n-Propylbenzene	ND	mg/kg	0.39	50		05/07/24 18:26	103-65-1	
Styrene	ND	mg/kg	0.39	50		05/07/24 18:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.39	50		05/07/24 18:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.39	50		05/07/24 18:26	79-34-5	
Tetrachloroethene	ND	mg/kg	0.39	50		05/07/24 18:26	127-18-4	
Toluene	<b>0.96</b>	mg/kg	0.39	50		05/07/24 18:26	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.39	50		05/07/24 18:26	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.39	50		05/07/24 18:26	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.39	50		05/07/24 18:26	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.39	50		05/07/24 18:26	79-00-5	
Trichloroethene	ND	mg/kg	0.39	50		05/07/24 18:26	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.39	50		05/07/24 18:26	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.39	50		05/07/24 18:26	96-18-4	
1,2,4-Trimethylbenzene	<b>0.43</b>	mg/kg	0.39	50		05/07/24 18:26	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.39	50		05/07/24 18:26	108-67-8	
Vinyl acetate	ND	mg/kg	7.9	50		05/07/24 18:26	108-05-4	
Vinyl chloride	ND	mg/kg	0.39	50		05/07/24 18:26	75-01-4	
Xylene (Total)	<b>2.0</b>	mg/kg	0.79	50		05/07/24 18:26	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	108	%	75-135	50		05/07/24 18:26	1868-53-7	
Toluene-d8 (S)	98	%	65-148	50		05/07/24 18:26	2037-26-5	
4-Bromofluorobenzene (S)	102	%	63-132	50		05/07/24 18:26	460-00-4	
<b>8260 MSV 5030 Med Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - New Orleans						
n-Heptane	<b>4530</b>	ug/kg	354	1	05/15/24 11:30	05/15/24 13:09	142-82-5	M5
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	75-125	1	05/15/24 11:30	05/15/24 13:09	2037-26-5	M5

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: **SS-02-RB** Lab ID: **50371968029** Collected: 05/01/24 10:10 Received: 05/01/24 14:00 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5030 Med Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - New Orleans						
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	100	%.	64-139	1	05/15/24 11:30	05/15/24 13:09	460-00-4	M5
Dibromofluoromethane (S)	97	%.	66-143	1	05/15/24 11:30	05/15/24 13:09	1868-53-7	M5
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	<b>33.3</b>	%	0.10	1		05/13/24 16:05		N2

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-02-LB Lab ID: 50371968030 Collected: 05/01/24 10:15 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - New Orleans						
n-Heptane	ND	ug/kg	8.1	1	05/13/24 11:05	05/14/24 10:26	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	75-125	1	05/13/24 11:05	05/14/24 10:26	2037-26-5	
4-Bromofluorobenzene (S)	102	%	64-139	1	05/13/24 11:05	05/14/24 10:26	460-00-4	
Dibromofluoromethane (S)	99	%	66-143	1	05/13/24 11:05	05/14/24 10:26	1868-53-7	
<b>8260D MSV 5035A-L Low Level</b>		Analytical Method: EPA 8260D Preparation Method: EPA 5035A-L Pace Analytical Services - Melville						
n-Nonane	ND	ug/kg	2.3	1	05/06/24 06:45	05/06/24 13:22	111-84-2	N3
<b>Surrogates</b>								
Toluene-d8 (S)	99	%	69-117	1	05/06/24 06:45	05/06/24 13:22	2037-26-5	
4-Bromofluorobenzene (S)	97	%	69-121	1	05/06/24 06:45	05/06/24 13:22	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	77-120	1	05/06/24 06:45	05/06/24 13:22	17060-07-0	
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Acetone	ND	mg/kg	0.12	1		05/07/24 19:27	67-64-1	
Acrolein	ND	mg/kg	0.12	1		05/07/24 19:27	107-02-8	
Acrylonitrile	ND	mg/kg	0.12	1		05/07/24 19:27	107-13-1	
Benzene	ND	mg/kg	0.0060	1		05/07/24 19:27	71-43-2	
Bromobenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	108-86-1	
Bromochloromethane	ND	mg/kg	0.0060	1		05/07/24 19:27	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0060	1		05/07/24 19:27	75-27-4	
Bromoform	ND	mg/kg	0.0060	1		05/07/24 19:27	75-25-2	
Bromomethane	ND	mg/kg	0.0060	1		05/07/24 19:27	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.030	1		05/07/24 19:27	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	98-06-6	
Carbon disulfide	ND	mg/kg	0.012	1		05/07/24 19:27	75-15-0	
Carbon tetrachloride	ND	mg/kg	0.0060	1		05/07/24 19:27	56-23-5	
Chlorobenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	108-90-7	
Chloroethane	ND	mg/kg	0.0060	1		05/07/24 19:27	75-00-3	
Chloroform	ND	mg/kg	0.0060	1		05/07/24 19:27	67-66-3	
Chloromethane	ND	mg/kg	0.0060	1		05/07/24 19:27	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0060	1		05/07/24 19:27	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0060	1		05/07/24 19:27	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0060	1		05/07/24 19:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0060	1		05/07/24 19:27	106-93-4	
Dibromomethane	ND	mg/kg	0.0060	1		05/07/24 19:27	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.12	1		05/07/24 19:27	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0060	1		05/07/24 19:27	75-71-8	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-02-LB Lab ID: 50371968030 Collected: 05/01/24 10:15 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
1,1-Dichloroethane	ND	mg/kg	0.0060	1		05/07/24 19:27	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0060	1		05/07/24 19:27	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0060	1		05/07/24 19:27	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0060	1		05/07/24 19:27	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0060	1		05/07/24 19:27	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0060	1		05/07/24 19:27	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0060	1		05/07/24 19:27	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0060	1		05/07/24 19:27	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0060	1		05/07/24 19:27	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0060	1		05/07/24 19:27	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0060	1		05/07/24 19:27	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	100-41-4	
Ethyl methacrylate	ND	mg/kg	0.12	1		05/07/24 19:27	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0060	1		05/07/24 19:27	87-68-3	
n-Hexane	ND	mg/kg	0.0060	1		05/07/24 19:27	110-54-3	
2-Hexanone	ND	mg/kg	0.12	1		05/07/24 19:27	591-78-6	
Iodomethane	ND	mg/kg	0.12	1		05/07/24 19:27	74-88-4	L1
Isopropylbenzene (Cumene)	ND	mg/kg	0.0060	1		05/07/24 19:27	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0060	1		05/07/24 19:27	99-87-6	
Methylene Chloride	ND	mg/kg	0.024	1		05/07/24 19:27	75-09-2	
1-Methylnaphthalene	ND	mg/kg	0.012	1		05/07/24 19:27	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.012	1		05/07/24 19:27	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.030	1		05/07/24 19:27	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0060	1		05/07/24 19:27	1634-04-4	
Naphthalene	ND	mg/kg	0.0060	1		05/07/24 19:27	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	103-65-1	
Styrene	ND	mg/kg	0.0060	1		05/07/24 19:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0060	1		05/07/24 19:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0060	1		05/07/24 19:27	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0060	1		05/07/24 19:27	127-18-4	
Toluene	ND	mg/kg	0.0060	1		05/07/24 19:27	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0060	1		05/07/24 19:27	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0060	1		05/07/24 19:27	79-00-5	
Trichloroethene	ND	mg/kg	0.0060	1		05/07/24 19:27	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0060	1		05/07/24 19:27	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0060	1		05/07/24 19:27	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0060	1		05/07/24 19:27	108-67-8	
Vinyl acetate	ND	mg/kg	0.12	1		05/07/24 19:27	108-05-4	
Vinyl chloride	ND	mg/kg	0.0060	1		05/07/24 19:27	75-01-4	
Xylene (Total)	ND	mg/kg	0.012	1		05/07/24 19:27	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	121	%	75-135	1		05/07/24 19:27	1868-53-7	

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: **SS-02-LB** Lab ID: **50371968030** Collected: 05/01/24 10:15 Received: 05/01/24 14:00 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
<b>Surrogates</b>								
Toluene-d8 (S)	100	%.	65-148	1		05/07/24 19:27	2037-26-5	
4-Bromofluorobenzene (S)	90	%.	63-132	1		05/07/24 19:27	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	<b>25.9</b>	%	0.10	1		05/13/24 16:05		N2

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-03-RB Lab ID: 50371968031 Collected: 05/01/24 10:20 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - New Orleans						
n-Heptane	ND	ug/kg	7.2	1	05/13/24 11:05	05/13/24 13:31	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	75-125	1	05/13/24 11:05	05/13/24 13:31	2037-26-5	
4-Bromofluorobenzene (S)	100	%	64-139	1	05/13/24 11:05	05/13/24 13:31	460-00-4	
Dibromofluoromethane (S)	101	%	66-143	1	05/13/24 11:05	05/13/24 13:31	1868-53-7	
<b>8260D MSV 5035A-L Low Level</b>		Analytical Method: EPA 8260D Preparation Method: EPA 5035A-L Pace Analytical Services - Melville						
n-Nonane	ND	ug/kg	1.6	1	05/06/24 06:45	05/06/24 13:43	111-84-2	N3
<b>Surrogates</b>								
Toluene-d8 (S)	96	%	69-117	1	05/06/24 06:45	05/06/24 13:43	2037-26-5	
4-Bromofluorobenzene (S)	101	%	69-121	1	05/06/24 06:45	05/06/24 13:43	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	77-120	1	05/06/24 06:45	05/06/24 13:43	17060-07-0	
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Acetone	ND	mg/kg	0.11	1		05/09/24 18:11	67-64-1	
Acrolein	ND	mg/kg	0.11	1		05/09/24 18:11	107-02-8	
Acrylonitrile	ND	mg/kg	0.11	1		05/09/24 18:11	107-13-1	
Benzene	ND	mg/kg	0.0055	1		05/09/24 18:11	71-43-2	
Bromobenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	108-86-1	
Bromochloromethane	ND	mg/kg	0.0055	1		05/09/24 18:11	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0055	1		05/09/24 18:11	75-27-4	
Bromoform	ND	mg/kg	0.0055	1		05/09/24 18:11	75-25-2	
Bromomethane	ND	mg/kg	0.0055	1		05/09/24 18:11	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.027	1		05/09/24 18:11	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	98-06-6	
Carbon disulfide	ND	mg/kg	0.011	1		05/09/24 18:11	75-15-0	
Carbon tetrachloride	ND	mg/kg	0.0055	1		05/09/24 18:11	56-23-5	
Chlorobenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	108-90-7	
Chloroethane	ND	mg/kg	0.0055	1		05/09/24 18:11	75-00-3	
Chloroform	ND	mg/kg	0.0055	1		05/09/24 18:11	67-66-3	
Chloromethane	ND	mg/kg	0.0055	1		05/09/24 18:11	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0055	1		05/09/24 18:11	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0055	1		05/09/24 18:11	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0055	1		05/09/24 18:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0055	1		05/09/24 18:11	106-93-4	
Dibromomethane	ND	mg/kg	0.0055	1		05/09/24 18:11	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.11	1		05/09/24 18:11	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0055	1		05/09/24 18:11	75-71-8	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-03-RB Lab ID: 50371968031 Collected: 05/01/24 10:20 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
1,1-Dichloroethane	ND	mg/kg	0.0055	1		05/09/24 18:11	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0055	1		05/09/24 18:11	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0055	1		05/09/24 18:11	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0055	1		05/09/24 18:11	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0055	1		05/09/24 18:11	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0055	1		05/09/24 18:11	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0055	1		05/09/24 18:11	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0055	1		05/09/24 18:11	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0055	1		05/09/24 18:11	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0055	1		05/09/24 18:11	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0055	1		05/09/24 18:11	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	100-41-4	
Ethyl methacrylate	ND	mg/kg	0.11	1		05/09/24 18:11	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0055	1		05/09/24 18:11	87-68-3	
n-Hexane	<b>0.0070</b>	mg/kg	0.0055	1		05/09/24 18:11	110-54-3	
2-Hexanone	ND	mg/kg	0.11	1		05/09/24 18:11	591-78-6	
Iodomethane	ND	mg/kg	0.11	1		05/09/24 18:11	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0055	1		05/09/24 18:11	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0055	1		05/09/24 18:11	99-87-6	
Methylene Chloride	ND	mg/kg	0.022	1		05/09/24 18:11	75-09-2	
1-Methylnaphthalene	ND	mg/kg	0.011	1		05/09/24 18:11	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.011	1		05/09/24 18:11	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.027	1		05/09/24 18:11	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0055	1		05/09/24 18:11	1634-04-4	
Naphthalene	ND	mg/kg	0.0055	1		05/09/24 18:11	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	103-65-1	
Styrene	ND	mg/kg	0.0055	1		05/09/24 18:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0055	1		05/09/24 18:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0055	1		05/09/24 18:11	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0055	1		05/09/24 18:11	127-18-4	
Toluene	ND	mg/kg	0.0055	1		05/09/24 18:11	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0055	1		05/09/24 18:11	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0055	1		05/09/24 18:11	79-00-5	
Trichloroethene	ND	mg/kg	0.0055	1		05/09/24 18:11	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0055	1		05/09/24 18:11	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0055	1		05/09/24 18:11	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0055	1		05/09/24 18:11	108-67-8	
Vinyl acetate	ND	mg/kg	0.11	1		05/09/24 18:11	108-05-4	
Vinyl chloride	ND	mg/kg	0.0055	1		05/09/24 18:11	75-01-4	
Xylene (Total)	ND	mg/kg	0.011	1		05/09/24 18:11	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	98	%	75-135	1		05/09/24 18:11	1868-53-7	

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: **SS-03-RB** Lab ID: **50371968031** Collected: 05/01/24 10:20 Received: 05/01/24 14:00 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
<b>Surrogates</b>								
Toluene-d8 (S)	98	%.	65-148	1		05/09/24 18:11	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	63-132	1		05/09/24 18:11	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	<b>18.6</b>	%	0.10	1		05/13/24 16:05		N2

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-03-LB Lab ID: 50371968032 Collected: 05/01/24 10:25 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - New Orleans						
n-Heptane	ND	ug/kg	5.5	1	05/13/24 11:05	05/13/24 13:50	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	75-125	1	05/13/24 11:05	05/13/24 13:50	2037-26-5	
4-Bromofluorobenzene (S)	104	%	64-139	1	05/13/24 11:05	05/13/24 13:50	460-00-4	
Dibromofluoromethane (S)	105	%	66-143	1	05/13/24 11:05	05/13/24 13:50	1868-53-7	
<b>8260D MSV 5035A-L Low Level</b>		Analytical Method: EPA 8260D Preparation Method: EPA 5035A-L Pace Analytical Services - Melville						
n-Nonane	ND	ug/kg	2.2	1	05/06/24 06:45	05/06/24 14:05	111-84-2	N3
<b>Surrogates</b>								
Toluene-d8 (S)	105	%	69-117	1	05/06/24 06:45	05/06/24 14:05	2037-26-5	
4-Bromofluorobenzene (S)	94	%	69-121	1	05/06/24 06:45	05/06/24 14:05	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	77-120	1	05/06/24 06:45	05/06/24 14:05	17060-07-0	
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Acetone	ND	mg/kg	0.15	1		05/09/24 18:45	67-64-1	
Acrolein	ND	mg/kg	0.15	1		05/09/24 18:45	107-02-8	
Acrylonitrile	ND	mg/kg	0.15	1		05/09/24 18:45	107-13-1	
Benzene	ND	mg/kg	0.0073	1		05/09/24 18:45	71-43-2	
Bromobenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	108-86-1	
Bromochloromethane	ND	mg/kg	0.0073	1		05/09/24 18:45	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0073	1		05/09/24 18:45	75-27-4	
Bromoform	ND	mg/kg	0.0073	1		05/09/24 18:45	75-25-2	
Bromomethane	ND	mg/kg	0.0073	1		05/09/24 18:45	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.036	1		05/09/24 18:45	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	98-06-6	
Carbon disulfide	ND	mg/kg	0.015	1		05/09/24 18:45	75-15-0	
Carbon tetrachloride	ND	mg/kg	0.0073	1		05/09/24 18:45	56-23-5	
Chlorobenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	108-90-7	
Chloroethane	ND	mg/kg	0.0073	1		05/09/24 18:45	75-00-3	
Chloroform	ND	mg/kg	0.0073	1		05/09/24 18:45	67-66-3	
Chloromethane	ND	mg/kg	0.0073	1		05/09/24 18:45	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0073	1		05/09/24 18:45	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0073	1		05/09/24 18:45	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0073	1		05/09/24 18:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0073	1		05/09/24 18:45	106-93-4	
Dibromomethane	ND	mg/kg	0.0073	1		05/09/24 18:45	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.15	1		05/09/24 18:45	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0073	1		05/09/24 18:45	75-71-8	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-03-LB Lab ID: 50371968032 Collected: 05/01/24 10:25 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
1,1-Dichloroethane	ND	mg/kg	0.0073	1		05/09/24 18:45	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0073	1		05/09/24 18:45	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0073	1		05/09/24 18:45	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0073	1		05/09/24 18:45	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0073	1		05/09/24 18:45	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0073	1		05/09/24 18:45	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0073	1		05/09/24 18:45	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0073	1		05/09/24 18:45	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0073	1		05/09/24 18:45	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0073	1		05/09/24 18:45	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0073	1		05/09/24 18:45	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	100-41-4	
Ethyl methacrylate	ND	mg/kg	0.15	1		05/09/24 18:45	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0073	1		05/09/24 18:45	87-68-3	
n-Hexane	ND	mg/kg	0.0073	1		05/09/24 18:45	110-54-3	
2-Hexanone	ND	mg/kg	0.15	1		05/09/24 18:45	591-78-6	
Iodomethane	ND	mg/kg	0.15	1		05/09/24 18:45	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0073	1		05/09/24 18:45	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0073	1		05/09/24 18:45	99-87-6	
Methylene Chloride	ND	mg/kg	0.029	1		05/09/24 18:45	75-09-2	
1-Methylnaphthalene	ND	mg/kg	0.015	1		05/09/24 18:45	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.015	1		05/09/24 18:45	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.036	1		05/09/24 18:45	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0073	1		05/09/24 18:45	1634-04-4	
Naphthalene	ND	mg/kg	0.0073	1		05/09/24 18:45	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	103-65-1	
Styrene	ND	mg/kg	0.0073	1		05/09/24 18:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0073	1		05/09/24 18:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0073	1		05/09/24 18:45	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0073	1		05/09/24 18:45	127-18-4	
Toluene	ND	mg/kg	0.0073	1		05/09/24 18:45	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0073	1		05/09/24 18:45	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0073	1		05/09/24 18:45	79-00-5	
Trichloroethene	ND	mg/kg	0.0073	1		05/09/24 18:45	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0073	1		05/09/24 18:45	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0073	1		05/09/24 18:45	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0073	1		05/09/24 18:45	108-67-8	
Vinyl acetate	ND	mg/kg	0.15	1		05/09/24 18:45	108-05-4	
Vinyl chloride	ND	mg/kg	0.0073	1		05/09/24 18:45	75-01-4	
Xylene (Total)	ND	mg/kg	0.015	1		05/09/24 18:45	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	105	%	75-135	1		05/09/24 18:45	1868-53-7	

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: **SS-03-LB** Lab ID: **50371968032** Collected: 05/01/24 10:25 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
<b>Surrogates</b>								
Toluene-d8 (S)	105	%.	65-148	1		05/09/24 18:45	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	63-132	1		05/09/24 18:45	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	<b>18.4</b>	%	0.10	1		05/14/24 12:29		N2

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-04-RB Lab ID: 50371968033 Collected: 05/01/24 10:30 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - New Orleans						
n-Heptane	ND	ug/kg	0.091	1	05/13/24 11:05	05/13/24 14:09	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	75-125	1	05/13/24 11:05	05/13/24 14:09	2037-26-5	
4-Bromofluorobenzene (S)	100	%	64-139	1	05/13/24 11:05	05/13/24 14:09	460-00-4	
Dibromofluoromethane (S)	106	%	66-143	1	05/13/24 11:05	05/13/24 14:09	1868-53-7	
<b>8260D MSV 5035A-L Low Level</b>		Analytical Method: EPA 8260D Preparation Method: EPA 5035A-L Pace Analytical Services - Melville						
n-Nonane	ND	ug/kg	1.9	1	05/06/24 06:45	05/06/24 14:26	111-84-2	N3
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	69-117	1	05/06/24 06:45	05/06/24 14:26	2037-26-5	
4-Bromofluorobenzene (S)	92	%	69-121	1	05/06/24 06:45	05/06/24 14:26	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	77-120	1	05/06/24 06:45	05/06/24 14:26	17060-07-0	
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Acetone	ND	mg/kg	0.15	1		05/09/24 19:19	67-64-1	
Acrolein	ND	mg/kg	0.15	1		05/09/24 19:19	107-02-8	
Acrylonitrile	ND	mg/kg	0.15	1		05/09/24 19:19	107-13-1	
Benzene	ND	mg/kg	0.0076	1		05/09/24 19:19	71-43-2	
Bromobenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	108-86-1	
Bromochloromethane	ND	mg/kg	0.0076	1		05/09/24 19:19	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0076	1		05/09/24 19:19	75-27-4	
Bromoform	ND	mg/kg	0.0076	1		05/09/24 19:19	75-25-2	
Bromomethane	ND	mg/kg	0.0076	1		05/09/24 19:19	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.038	1		05/09/24 19:19	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	98-06-6	
Carbon disulfide	ND	mg/kg	0.015	1		05/09/24 19:19	75-15-0	
Carbon tetrachloride	ND	mg/kg	0.0076	1		05/09/24 19:19	56-23-5	
Chlorobenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	108-90-7	
Chloroethane	ND	mg/kg	0.0076	1		05/09/24 19:19	75-00-3	
Chloroform	ND	mg/kg	0.0076	1		05/09/24 19:19	67-66-3	
Chloromethane	ND	mg/kg	0.0076	1		05/09/24 19:19	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0076	1		05/09/24 19:19	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0076	1		05/09/24 19:19	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0076	1		05/09/24 19:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0076	1		05/09/24 19:19	106-93-4	
Dibromomethane	ND	mg/kg	0.0076	1		05/09/24 19:19	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.15	1		05/09/24 19:19	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0076	1		05/09/24 19:19	75-71-8	

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: **SS-04-RB** Lab ID: **50371968033** Collected: 05/01/24 10:30 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
1,1-Dichloroethane	ND	mg/kg	0.0076	1		05/09/24 19:19	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0076	1		05/09/24 19:19	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0076	1		05/09/24 19:19	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0076	1		05/09/24 19:19	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0076	1		05/09/24 19:19	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0076	1		05/09/24 19:19	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0076	1		05/09/24 19:19	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0076	1		05/09/24 19:19	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0076	1		05/09/24 19:19	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0076	1		05/09/24 19:19	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0076	1		05/09/24 19:19	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	100-41-4	
Ethyl methacrylate	ND	mg/kg	0.15	1		05/09/24 19:19	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0076	1		05/09/24 19:19	87-68-3	
n-Hexane	ND	mg/kg	0.0076	1		05/09/24 19:19	110-54-3	
2-Hexanone	ND	mg/kg	0.15	1		05/09/24 19:19	591-78-6	
Iodomethane	ND	mg/kg	0.15	1		05/09/24 19:19	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0076	1		05/09/24 19:19	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0076	1		05/09/24 19:19	99-87-6	
Methylene Chloride	ND	mg/kg	0.030	1		05/09/24 19:19	75-09-2	
1-Methylnaphthalene	ND	mg/kg	0.015	1		05/09/24 19:19	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.015	1		05/09/24 19:19	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.038	1		05/09/24 19:19	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0076	1		05/09/24 19:19	1634-04-4	
Naphthalene	ND	mg/kg	0.0076	1		05/09/24 19:19	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	103-65-1	
Styrene	ND	mg/kg	0.0076	1		05/09/24 19:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0076	1		05/09/24 19:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0076	1		05/09/24 19:19	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0076	1		05/09/24 19:19	127-18-4	
Toluene	ND	mg/kg	0.0076	1		05/09/24 19:19	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0076	1		05/09/24 19:19	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0076	1		05/09/24 19:19	79-00-5	
Trichloroethene	ND	mg/kg	0.0076	1		05/09/24 19:19	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0076	1		05/09/24 19:19	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0076	1		05/09/24 19:19	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0076	1		05/09/24 19:19	108-67-8	
Vinyl acetate	ND	mg/kg	0.15	1		05/09/24 19:19	108-05-4	
Vinyl chloride	ND	mg/kg	0.0076	1		05/09/24 19:19	75-01-4	
Xylene (Total)	ND	mg/kg	0.015	1		05/09/24 19:19	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	97	%	75-135	1		05/09/24 19:19	1868-53-7	

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: **SS-04-RB** Lab ID: **50371968033** Collected: 05/01/24 10:30 Received: 05/01/24 14:00 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
<b>Surrogates</b>								
Toluene-d8 (S)	103	%.	65-148	1		05/09/24 19:19	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	63-132	1		05/09/24 19:19	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	<b>32.4</b>	%	0.10	1		05/14/24 12:29		N2

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-04-LB Lab ID: 50371968034 Collected: 05/01/24 10:35 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035 Low Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - New Orleans						
n-Heptane	ND	ug/kg	6.6	1	05/13/24 11:05	05/13/24 14:28	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	75-125	1	05/13/24 11:05	05/13/24 14:28	2037-26-5	
4-Bromofluorobenzene (S)	102	%	64-139	1	05/13/24 11:05	05/13/24 14:28	460-00-4	
Dibromofluoromethane (S)	107	%	66-143	1	05/13/24 11:05	05/13/24 14:28	1868-53-7	
<b>8260D MSV 5035A-L Low Level</b>		Analytical Method: EPA 8260D Preparation Method: EPA 5035A-L Pace Analytical Services - Melville						
n-Nonane	ND	ug/kg	1.7	1	05/06/24 06:45	05/06/24 14:47	111-84-2	N3
<b>Surrogates</b>								
Toluene-d8 (S)	107	%	69-117	1	05/06/24 06:45	05/06/24 14:47	2037-26-5	
4-Bromofluorobenzene (S)	89	%	69-121	1	05/06/24 06:45	05/06/24 14:47	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	77-120	1	05/06/24 06:45	05/06/24 14:47	17060-07-0	
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Acetone	ND	mg/kg	0.14	1		05/09/24 19:53	67-64-1	
Acrolein	ND	mg/kg	0.14	1		05/09/24 19:53	107-02-8	
Acrylonitrile	ND	mg/kg	0.14	1		05/09/24 19:53	107-13-1	
Benzene	ND	mg/kg	0.0068	1		05/09/24 19:53	71-43-2	
Bromobenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	108-86-1	
Bromochloromethane	ND	mg/kg	0.0068	1		05/09/24 19:53	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0068	1		05/09/24 19:53	75-27-4	
Bromoform	ND	mg/kg	0.0068	1		05/09/24 19:53	75-25-2	
Bromomethane	ND	mg/kg	0.0068	1		05/09/24 19:53	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.034	1		05/09/24 19:53	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	98-06-6	
Carbon disulfide	ND	mg/kg	0.014	1		05/09/24 19:53	75-15-0	
Carbon tetrachloride	ND	mg/kg	0.0068	1		05/09/24 19:53	56-23-5	
Chlorobenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	108-90-7	
Chloroethane	ND	mg/kg	0.0068	1		05/09/24 19:53	75-00-3	
Chloroform	ND	mg/kg	0.0068	1		05/09/24 19:53	67-66-3	
Chloromethane	ND	mg/kg	0.0068	1		05/09/24 19:53	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0068	1		05/09/24 19:53	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0068	1		05/09/24 19:53	106-43-4	
Dibromochloromethane	ND	mg/kg	0.0068	1		05/09/24 19:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0068	1		05/09/24 19:53	106-93-4	
Dibromomethane	ND	mg/kg	0.0068	1		05/09/24 19:53	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	0.14	1		05/09/24 19:53	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.0068	1		05/09/24 19:53	75-71-8	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: SS-04-LB Lab ID: 50371968034 Collected: 05/01/24 10:35 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
1,1-Dichloroethane	ND	mg/kg	0.0068	1		05/09/24 19:53	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0068	1		05/09/24 19:53	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0068	1		05/09/24 19:53	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0068	1		05/09/24 19:53	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0068	1		05/09/24 19:53	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0068	1		05/09/24 19:53	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0068	1		05/09/24 19:53	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0068	1		05/09/24 19:53	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0068	1		05/09/24 19:53	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0068	1		05/09/24 19:53	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0068	1		05/09/24 19:53	10061-02-6	
Ethylbenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	100-41-4	
Ethyl methacrylate	ND	mg/kg	0.14	1		05/09/24 19:53	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0068	1		05/09/24 19:53	87-68-3	
n-Hexane	ND	mg/kg	0.0068	1		05/09/24 19:53	110-54-3	
2-Hexanone	ND	mg/kg	0.14	1		05/09/24 19:53	591-78-6	
Iodomethane	ND	mg/kg	0.14	1		05/09/24 19:53	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0068	1		05/09/24 19:53	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0068	1		05/09/24 19:53	99-87-6	
Methylene Chloride	ND	mg/kg	0.027	1		05/09/24 19:53	75-09-2	
1-Methylnaphthalene	ND	mg/kg	0.014	1		05/09/24 19:53	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.014	1		05/09/24 19:53	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.034	1		05/09/24 19:53	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0068	1		05/09/24 19:53	1634-04-4	
Naphthalene	ND	mg/kg	0.0068	1		05/09/24 19:53	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	103-65-1	
Styrene	ND	mg/kg	0.0068	1		05/09/24 19:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0068	1		05/09/24 19:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0068	1		05/09/24 19:53	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0068	1		05/09/24 19:53	127-18-4	
Toluene	ND	mg/kg	0.0068	1		05/09/24 19:53	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0068	1		05/09/24 19:53	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0068	1		05/09/24 19:53	79-00-5	
Trichloroethene	ND	mg/kg	0.0068	1		05/09/24 19:53	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0068	1		05/09/24 19:53	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0068	1		05/09/24 19:53	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0068	1		05/09/24 19:53	108-67-8	
Vinyl acetate	ND	mg/kg	0.14	1		05/09/24 19:53	108-05-4	
Vinyl chloride	ND	mg/kg	0.0068	1		05/09/24 19:53	75-01-4	
Xylene (Total)	ND	mg/kg	0.014	1		05/09/24 19:53	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	100	%	75-135	1		05/09/24 19:53	1868-53-7	

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: **SS-04-LB** Lab ID: **50371968034** Collected: 05/01/24 10:35 Received: 05/01/24 14:00 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
<b>Surrogates</b>								
Toluene-d8 (S)	106	%.	65-148	1		05/09/24 19:53	2037-26-5	
4-Bromofluorobenzene (S)	92	%.	63-132	1		05/09/24 19:53	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	<b>28.6</b>	%	0.10	1		05/14/24 12:29		N2

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: DUP-03 Lab ID: 50371968035 Collected: 05/01/24 08:00 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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#### 8260 MSV 5035A-H Med Level

Analytical Method: EPA 8260C Preparation Method: EPA 5035A-H/5030C

Pace Analytical Services - Melville

n-Nonane	6090	ug/kg	92.9	1	05/07/24 05:54	05/07/24 08:24	111-84-2	N3
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	69-117	1	05/07/24 05:54	05/07/24 08:24	2037-26-5	
4-Bromofluorobenzene (S)	107	%	69-121	1	05/07/24 05:54	05/07/24 08:24	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	77-120	1	05/07/24 05:54	05/07/24 08:24	17060-07-0	

#### 8260 MSV 5035A VOA

Analytical Method: EPA 8260

Pace Analytical Services - Indianapolis

Acetone	ND	mg/kg	8.1	50		05/11/24 00:02	67-64-1	
Acrolein	ND	mg/kg	8.1	50		05/11/24 00:02	107-02-8	
Acrylonitrile	ND	mg/kg	8.1	50		05/11/24 00:02	107-13-1	
Benzene	1.0	mg/kg	0.40	50		05/11/24 00:02	71-43-2	
Bromobenzene	ND	mg/kg	0.40	50		05/11/24 00:02	108-86-1	
Bromochloromethane	ND	mg/kg	0.40	50		05/11/24 00:02	74-97-5	
Bromodichloromethane	ND	mg/kg	0.40	50		05/11/24 00:02	75-27-4	
Bromoform	ND	mg/kg	0.40	50		05/11/24 00:02	75-25-2	
Bromomethane	ND	mg/kg	0.40	50		05/11/24 00:02	74-83-9	
2-Butanone (MEK)	ND	mg/kg	2.0	50		05/11/24 00:02	78-93-3	
n-Butylbenzene	ND	mg/kg	0.40	50		05/11/24 00:02	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.40	50		05/11/24 00:02	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.40	50		05/11/24 00:02	98-06-6	
Carbon disulfide	ND	mg/kg	0.81	50		05/11/24 00:02	75-15-0	
Carbon tetrachloride	ND	mg/kg	0.40	50		05/11/24 00:02	56-23-5	
Chlorobenzene	ND	mg/kg	0.40	50		05/11/24 00:02	108-90-7	
Chloroethane	ND	mg/kg	0.40	50		05/11/24 00:02	75-00-3	
Chloroform	ND	mg/kg	0.40	50		05/11/24 00:02	67-66-3	
Chloromethane	ND	mg/kg	0.40	50		05/11/24 00:02	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.40	50		05/11/24 00:02	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.40	50		05/11/24 00:02	106-43-4	
Dibromochloromethane	ND	mg/kg	0.40	50		05/11/24 00:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.40	50		05/11/24 00:02	106-93-4	
Dibromomethane	ND	mg/kg	0.40	50		05/11/24 00:02	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.40	50		05/11/24 00:02	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.40	50		05/11/24 00:02	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.40	50		05/11/24 00:02	106-46-7	
trans-1,4-Dichloro-2-butene	ND	mg/kg	8.1	50		05/11/24 00:02	110-57-6	
Dichlorodifluoromethane	ND	mg/kg	0.40	50		05/11/24 00:02	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.40	50		05/11/24 00:02	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.40	50		05/11/24 00:02	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.40	50		05/11/24 00:02	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.40	50		05/11/24 00:02	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.40	50		05/11/24 00:02	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.40	50		05/11/24 00:02	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.40	50		05/11/24 00:02	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.40	50		05/11/24 00:02	594-20-7	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: DUP-03 Lab ID: 50371968035 Collected: 05/01/24 08:00 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
1,1-Dichloropropene	ND	mg/kg	0.40	50		05/11/24 00:02	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.40	50		05/11/24 00:02	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.40	50		05/11/24 00:02	10061-02-6	
Ethylbenzene	ND	mg/kg	0.40	50		05/11/24 00:02	100-41-4	
Ethyl methacrylate	ND	mg/kg	8.1	50		05/11/24 00:02	97-63-2	
Hexachloro-1,3-butadiene	ND	mg/kg	0.40	50		05/11/24 00:02	87-68-3	
n-Hexane	<b>103</b>	mg/kg	8.1	1000		05/13/24 21:38	110-54-3	
2-Hexanone	ND	mg/kg	8.1	50		05/11/24 00:02	591-78-6	
Iodomethane	ND	mg/kg	8.1	50		05/11/24 00:02	74-88-4	
Isopropylbenzene (Cumene)	ND	mg/kg	0.40	50		05/11/24 00:02	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.40	50		05/11/24 00:02	99-87-6	
Methylene Chloride	ND	mg/kg	1.6	50		05/11/24 00:02	75-09-2	
1-Methylnaphthalene	ND	mg/kg	0.81	50		05/11/24 00:02	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.81	50		05/11/24 00:02	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	2.0	50		05/11/24 00:02	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.40	50		05/11/24 00:02	1634-04-4	
Naphthalene	ND	mg/kg	0.40	50		05/11/24 00:02	91-20-3	
n-Propylbenzene	ND	mg/kg	0.40	50		05/11/24 00:02	103-65-1	
Styrene	ND	mg/kg	0.40	50		05/11/24 00:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.40	50		05/11/24 00:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.40	50		05/11/24 00:02	79-34-5	
Tetrachloroethene	ND	mg/kg	0.40	50		05/11/24 00:02	127-18-4	
Toluene	<b>1.3</b>	mg/kg	0.40	50		05/11/24 00:02	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.40	50		05/11/24 00:02	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.40	50		05/11/24 00:02	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.40	50		05/11/24 00:02	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.40	50		05/11/24 00:02	79-00-5	
Trichloroethene	ND	mg/kg	0.40	50		05/11/24 00:02	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.40	50		05/11/24 00:02	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.40	50		05/11/24 00:02	96-18-4	
1,2,4-Trimethylbenzene	<b>0.82</b>	mg/kg	0.40	50		05/11/24 00:02	95-63-6	
1,3,5-Trimethylbenzene	<b>0.60</b>	mg/kg	0.40	50		05/11/24 00:02	108-67-8	
Vinyl acetate	ND	mg/kg	8.1	50		05/11/24 00:02	108-05-4	
Vinyl chloride	ND	mg/kg	0.40	50		05/11/24 00:02	75-01-4	
Xylene (Total)	<b>3.4</b>	mg/kg	0.81	50		05/11/24 00:02	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	98	%	75-135	50		05/11/24 00:02	1868-53-7	
Toluene-d8 (S)	109	%	65-148	50		05/11/24 00:02	2037-26-5	
4-Bromofluorobenzene (S)	99	%	63-132	50		05/11/24 00:02	460-00-4	

**8260 MSV 5030 Med Level**

Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B

Pace Analytical Services - New Orleans

n-Heptane	<b>25500</b>	ug/kg	335	1	05/15/24 11:30	05/15/24 13:28	142-82-5	C0,M5
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	75-125	1	05/15/24 11:30	05/15/24 13:28	2037-26-5	M5

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: DUP-03 Lab ID: 50371968035 Collected: 05/01/24 08:00 Received: 05/01/24 14:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5030 Med Level</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - New Orleans						
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	101	%.	64-139	1	05/15/24 11:30	05/15/24 13:28	460-00-4	M5
Dibromofluoromethane (S)	95	%.	66-143	1	05/15/24 11:30	05/15/24 13:28	1868-53-7	M5
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	<b>28.0</b>	%	0.10	1		05/14/24 12:30		N2

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373379

Sample: Trip Blank (SED)	Lab ID: 50371968037	Collected: 05/01/24 08:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/06/24 18:20	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	100	%	80-120	1		05/06/24 18:20	17060-07-0	
4-Bromofluorobenzene (S)	98	%	80-120	1		05/06/24 18:20	460-00-4	
Toluene-d8 (S)	86	%	80-120	1		05/06/24 18:20	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 22:04	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	76-124	1		05/13/24 22:04	2037-26-5	
4-Bromofluorobenzene (S)	101	%	78-121	1		05/13/24 22:04	460-00-4	
Dibromofluoromethane (S)	97	%	74-128	1		05/13/24 22:04	1868-53-7	
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 16:16	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 16:16	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 16:16	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 16:16	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 16:16	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 16:16	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 16:16	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 16:16	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 16:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 16:16	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:16	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:16	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 16:16	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 16:16	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 16:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 16:16	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 16:16	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 16:16	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 16:16	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 16:16	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 16:16	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 16:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 16:16	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 16:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:16	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 16:16	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 16:16	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 16:16	75-34-3	

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**ANALYTICAL RESULTS**

Project: MPL Putnam  
 Pace Project No.: 50373379

Sample: Trip Blank (SED)	Lab ID: 50371968037	Collected: 05/01/24 08:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 16:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 16:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:16	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:16	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 16:16	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:16	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 16:16	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 16:16	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 16:16	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 16:16	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 16:16	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 16:16	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 16:16	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 16:16	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 16:16	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 16:16	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 16:16	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 16:16	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 16:16	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 16:16	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 16:16	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 16:16	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 16:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 16:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 16:16	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 16:16	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 16:16	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:16	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 16:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 16:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 16:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 16:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 16:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 16:16	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 16:16	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 16:16	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 16:16	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 16:16	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 16:16	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	99	%.	79-124	1		05/08/24 16:16	460-00-4	
Dibromofluoromethane (S)	102	%.	82-128	1		05/08/24 16:16	1868-53-7	
Toluene-d8 (S)	98	%.	73-122	1		05/08/24 16:16	2037-26-5	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch: 328608 Analysis Method: EPA 8260  
 QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV 5035 Low Level  
 Laboratory: Pace Analytical Services - New Orleans  
 Associated Lab Samples: 50371968027, 50371968028, 50371968030, 50371968031, 50371968032, 50371968033, 50371968034

METHOD BLANK: 1575772 Matrix: Solid  
 Associated Lab Samples: 50371968027, 50371968028, 50371968030, 50371968031, 50371968032, 50371968033, 50371968034

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/kg	ND	5.0	05/13/24 11:11	
4-Bromofluorobenzene (S)	%.	98	64-139	05/13/24 11:11	
Dibromofluoromethane (S)	%.	109	66-143	05/13/24 11:11	
Toluene-d8 (S)	%.	101	75-125	05/13/24 11:11	

LABORATORY CONTROL SAMPLE: 1575773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Bromofluorobenzene (S)	%.			93	64-139	
Dibromofluoromethane (S)	%.			107	66-143	
Toluene-d8 (S)	%.			100	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1575774 1575775

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		20316365006 Result	Spike Conc.	Spike Conc.	Result						
4-Bromofluorobenzene (S)	%.					98	98	64-139			
Dibromofluoromethane (S)	%.					105	103	66-143			
Toluene-d8 (S)	%.					101	100	75-125			

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

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QC Batch:	347005	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 5035A-L	Analysis Description:	8260 MSV 5035A-L Low Level
		Laboratory:	Pace Analytical Services - Melville

Associated Lab Samples: 50371968027, 50371968028, 50371968030, 50371968031, 50371968032, 50371968033, 50371968034

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METHOD BLANK: 1792985 Matrix: Solid

Associated Lab Samples: 50371968027, 50371968028, 50371968030, 50371968031, 50371968032, 50371968033, 50371968034

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Nonane	ug/kg	ND	2.0	05/06/24 09:44	N3
1,2-Dichloroethane-d4 (S)	%	108	77-120	05/06/24 09:44	
4-Bromofluorobenzene (S)	%	105	69-121	05/06/24 09:44	
Toluene-d8 (S)	%	93	69-117	05/06/24 09:44	

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LABORATORY CONTROL SAMPLE: 1792986

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Nonane	ug/kg	49.7	50.4	101	62-126	N3
1,2-Dichloroethane-d4 (S)	%			99	77-120	
4-Bromofluorobenzene (S)	%			105	69-121	
Toluene-d8 (S)	%			96	69-117	

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MATRIX SPIKE SAMPLE: 1792987

Parameter	Units	50371968034 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
n-Nonane	ug/kg	ND	43.1	11.0	26	10-156	N3
1,2-Dichloroethane-d4 (S)	%				82	77-120	
4-Bromofluorobenzene (S)	%				94	69-121	
Toluene-d8 (S)	%				105	69-117	

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QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch:	347062	Analysis Method:	EPA 8260C
QC Batch Method:	EPA 5035A-H/5030C	Analysis Description:	8260 MSV 5035A-H Med
		Laboratory:	Pace Analytical Services - Melville

Associated Lab Samples: 50371968029, 50371968035

METHOD BLANK: 1793309 Matrix: Solid

Associated Lab Samples: 50371968029, 50371968035

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Nonane	ug/kg	ND	99.2	05/07/24 06:32	N3
1,2-Dichloroethane-d4 (S)	%	92	77-120	05/07/24 06:32	
4-Bromofluorobenzene (S)	%	104	69-121	05/07/24 06:32	
Toluene-d8 (S)	%	102	69-117	05/07/24 06:32	

LABORATORY CONTROL SAMPLE: 1793310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Nonane	ug/kg	2500	2670	107	62-126	N3
1,2-Dichloroethane-d4 (S)	%			95	77-120	
4-Bromofluorobenzene (S)	%			108	69-121	
Toluene-d8 (S)	%			102	69-117	

MATRIX SPIKE SAMPLE: 1793381

Parameter	Units	50371968035 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
n-Nonane	ug/kg	6090	2320	8570	107	10-156	N3
1,2-Dichloroethane-d4 (S)	%				94	77-120	
4-Bromofluorobenzene (S)	%				108	69-121	
Toluene-d8 (S)	%				103	69-117	

SAMPLE DUPLICATE: 1793380

Parameter	Units	50371968029 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Nonane	ug/kg	8970	9260	3	20	N3
1,2-Dichloroethane-d4 (S)	%	98	98		20	
4-Bromofluorobenzene (S)	%	102	104		20	
Toluene-d8 (S)	%	98	98		20	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch: 328635

Analysis Method: EPA 8260B

QC Batch Method: EPA 8260B

Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - New Orleans

Associated Lab Samples: 50371968037

METHOD BLANK: 1575881

Matrix: Water

Associated Lab Samples: 50371968037

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/L	ND	5.0	05/13/24 19:13	
4-Bromofluorobenzene (S)	%.	97	78-121	05/13/24 19:13	
Dibromofluoromethane (S)	%.	106	74-128	05/13/24 19:13	
Toluene-d8 (S)	%.	98	76-124	05/13/24 19:13	

LABORATORY CONTROL SAMPLE: 1575882

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Bromofluorobenzene (S)	%.			93	78-121	
Dibromofluoromethane (S)	%.			102	74-128	
Toluene-d8 (S)	%.			100	76-124	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch:	346969	Analysis Method:	EPA 8260C/5030C
QC Batch Method:	EPA 8260C/5030C	Analysis Description:	8260 MSV
		Laboratory:	Pace Analytical Services - Melville

Associated Lab Samples: 50371968037

METHOD BLANK: 1792807 Matrix: Water

Associated Lab Samples: 50371968037

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Nonane	ug/L	ND	4.0	05/06/24 15:55	N3
1,2-Dichloroethane-d4 (S)	%	99	80-120	05/06/24 15:55	
4-Bromofluorobenzene (S)	%	98	80-120	05/06/24 15:55	
Toluene-d8 (S)	%	84	80-120	05/06/24 15:55	

LABORATORY CONTROL SAMPLE: 1792808

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Nonane	ug/L	50	50.3	101	24-143	N3
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			103	80-120	
Toluene-d8 (S)	%			85	80-120	

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QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch: 788348

Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260

Analysis Description: 8260 MSV Low Level

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968037

METHOD BLANK: 3606427

Matrix: Water

Associated Lab Samples: 50371968037

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1-Dichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1-Dichloroethene	ug/L	ND	1.0	05/08/24 11:35	
1,1-Dichloropropene	ug/L	ND	1.0	05/08/24 11:35	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,2,3-Trichloropropane	ug/L	ND	1.0	05/08/24 11:35	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	05/08/24 11:35	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/08/24 11:35	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,2-Dichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,2-Dichloropropane	ug/L	ND	1.0	05/08/24 11:35	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	05/08/24 11:35	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,3-Dichloropropane	ug/L	ND	1.0	05/08/24 11:35	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1-Methylnaphthalene	ug/L	ND	20.0	05/08/24 11:35	
2,2-Dichloropropane	ug/L	ND	1.0	05/08/24 11:35	
2-Butanone (MEK)	ug/L	ND	20.0	05/08/24 11:35	
2-Chlorotoluene	ug/L	ND	1.0	05/08/24 11:35	
2-Hexanone	ug/L	ND	20.0	05/08/24 11:35	
2-Methylnaphthalene	ug/L	ND	20.0	05/08/24 11:35	
4-Chlorotoluene	ug/L	ND	1.0	05/08/24 11:35	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20.0	05/08/24 11:35	
Acetone	ug/L	ND	20.0	05/08/24 11:35	
Acrolein	ug/L	ND	20.0	05/08/24 11:35	
Acrylonitrile	ug/L	ND	100	05/08/24 11:35	
Benzene	ug/L	ND	1.0	05/08/24 11:35	
Bromobenzene	ug/L	ND	1.0	05/08/24 11:35	
Bromochloromethane	ug/L	ND	1.0	05/08/24 11:35	
Bromodichloromethane	ug/L	ND	1.0	05/08/24 11:35	
Bromoform	ug/L	ND	1.0	05/08/24 11:35	
Bromomethane	ug/L	ND	5.0	05/08/24 11:35	
Carbon disulfide	ug/L	ND	5.0	05/08/24 11:35	
Carbon tetrachloride	ug/L	ND	1.0	05/08/24 11:35	
Chlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
Chloroethane	ug/L	ND	2.0	05/08/24 11:35	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

METHOD BLANK: 3606427

Matrix: Water

Associated Lab Samples: 50371968037

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloroform	ug/L	ND	1.0	05/08/24 11:35	
Chloromethane	ug/L	ND	2.0	05/08/24 11:35	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/08/24 11:35	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/08/24 11:35	
Dibromochloromethane	ug/L	ND	1.0	05/08/24 11:35	
Dibromomethane	ug/L	ND	1.0	05/08/24 11:35	
Dichlorodifluoromethane	ug/L	ND	2.0	05/08/24 11:35	
Ethyl methacrylate	ug/L	ND	20.0	05/08/24 11:35	
Ethylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/08/24 11:35	
Iodomethane	ug/L	ND	5.0	05/08/24 11:35	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	05/08/24 11:35	
Methyl-tert-butyl ether	ug/L	ND	4.0	05/08/24 11:35	
Methylene Chloride	ug/L	ND	5.0	05/08/24 11:35	
n-Butylbenzene	ug/L	ND	1.0	05/08/24 11:35	
n-Hexane	ug/L	ND	5.0	05/08/24 11:35	
n-Propylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Naphthalene	ug/L	ND	1.0	05/08/24 11:35	
p-Isopropyltoluene	ug/L	ND	1.0	05/08/24 11:35	
sec-Butylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Styrene	ug/L	ND	1.0	05/08/24 11:35	
tert-Butylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Tetrachloroethene	ug/L	ND	1.0	05/08/24 11:35	
Toluene	ug/L	ND	1.0	05/08/24 11:35	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/08/24 11:35	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/08/24 11:35	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	05/08/24 11:35	
Trichloroethene	ug/L	ND	1.0	05/08/24 11:35	
Trichlorofluoromethane	ug/L	ND	2.0	05/08/24 11:35	
Vinyl acetate	ug/L	ND	20.0	05/08/24 11:35	
Vinyl chloride	ug/L	ND	1.0	05/08/24 11:35	
Xylene (Total)	ug/L	ND	3.0	05/08/24 11:35	
4-Bromofluorobenzene (S)	%	96	79-124	05/08/24 11:35	1d
Dibromofluoromethane (S)	%	98	82-128	05/08/24 11:35	
Toluene-d8 (S)	%	98	73-122	05/08/24 11:35	

LABORATORY CONTROL SAMPLE: 3606428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.6	107	81-130	
1,1,1-Trichloroethane	ug/L	50	51.0	102	71-126	
1,1,2,2-Tetrachloroethane	ug/L	50	48.5	97	70-126	
1,1,2-Trichloroethane	ug/L	50	54.6	109	79-125	
1,1-Dichloroethane	ug/L	50	50.9	102	79-120	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

LABORATORY CONTROL SAMPLE: 3606428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	50	53.4	107	71-130	
1,1-Dichloropropene	ug/L	50	56.6	113	78-144	
1,2,3-Trichlorobenzene	ug/L	50	49.3	99	57-146	
1,2,3-Trichloropropane	ug/L	50	54.0	108	74-127	
1,2,4-Trichlorobenzene	ug/L	50	52.8	106	62-136	
1,2,4-Trimethylbenzene	ug/L	50	52.1	104	69-120	
1,2-Dibromoethane (EDB)	ug/L	50	52.1	104	80-120	
1,2-Dichlorobenzene	ug/L	50	50.1	100	79-123	
1,2-Dichloroethane	ug/L	50	47.4	95	72-123	
1,2-Dichloropropane	ug/L	50	49.4	99	76-125	
1,3,5-Trimethylbenzene	ug/L	50	52.2	104	71-120	
1,3-Dichlorobenzene	ug/L	50	52.2	104	78-117	
1,3-Dichloropropane	ug/L	50	52.1	104	77-126	
1,4-Dichlorobenzene	ug/L	50	52.1	104	79-116	
1-Methylnaphthalene	ug/L	50	58.6	117	50-190	
2,2-Dichloropropane	ug/L	50	55.8	112	48-138	
2-Butanone (MEK)	ug/L	250	263	105	67-135	
2-Chlorotoluene	ug/L	50	50.3	101	75-122	
2-Hexanone	ug/L	250	263	105	65-135	
2-Methylnaphthalene	ug/L	50	57.6	115	55-184	
4-Chlorotoluene	ug/L	50	51.1	102	77-120	
4-Methyl-2-pentanone (MIBK)	ug/L	250	265	106	69-136	
Acetone	ug/L	250	230	92	34-156	
Acrolein	ug/L	1000	903	90	59-191	
Acrylonitrile	ug/L	250	255	102	67-146	
Benzene	ug/L	50	52.0	104	76-122	
Bromobenzene	ug/L	50	46.7	93	75-121	
Bromochloromethane	ug/L	50	52.2	104	73-119	
Bromodichloromethane	ug/L	50	52.9	106	80-126	
Bromoform	ug/L	50	51.9	104	77-124	
Bromomethane	ug/L	50	38.8	78	10-175	
Carbon disulfide	ug/L	50	50.0	100	69-121	
Carbon tetrachloride	ug/L	50	51.7	103	73-127	
Chlorobenzene	ug/L	50	51.9	104	76-118	
Chloroethane	ug/L	50	55.7	111	36-162	
Chloroform	ug/L	50	50.7	101	78-121	
Chloromethane	ug/L	50	52.7	105	37-143	
cis-1,2-Dichloroethene	ug/L	50	54.1	108	77-123	
cis-1,3-Dichloropropene	ug/L	50	55.5	111	76-132	
Dibromochloromethane	ug/L	50	53.0	106	79-130	
Dibromomethane	ug/L	50	50.5	101	79-124	
Dichlorodifluoromethane	ug/L	50	44.4	89	29-126	
Ethyl methacrylate	ug/L	50	56.8	114	78-137	
Ethylbenzene	ug/L	50	54.4	109	76-120	
Hexachloro-1,3-butadiene	ug/L	50	51.4	103	60-131	
Iodomethane	ug/L	50	66.9	134	10-148	
Isopropylbenzene (Cumene)	ug/L	50	53.6	107	71-124	

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### QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

LABORATORY CONTROL SAMPLE: 3606428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methyl-tert-butyl ether	ug/L	50	50.0	100	71-121	
Methylene Chloride	ug/L	50	44.3	89	71-121	
n-Butylbenzene	ug/L	50	52.4	105	68-131	
n-Hexane	ug/L	50	55.0	110	51-126	
n-Propylbenzene	ug/L	50	51.8	104	67-127	
Naphthalene	ug/L	50	51.3	103	62-143	
p-Isopropyltoluene	ug/L	50	53.1	106	72-124	
sec-Butylbenzene	ug/L	50	53.1	106	71-126	
Styrene	ug/L	50	54.4	109	80-121	
tert-Butylbenzene	ug/L	50	57.8	116	71-128	
Tetrachloroethene	ug/L	50	54.3	109	71-122	
Toluene	ug/L	50	51.6	103	74-118	
trans-1,2-Dichloroethene	ug/L	50	53.4	107	75-122	
trans-1,3-Dichloropropene	ug/L	50	55.3	111	77-126	
trans-1,4-Dichloro-2-butene	ug/L	50	49.9J	100	53-136	
Trichloroethene	ug/L	50	50.6	101	74-125	
Trichlorofluoromethane	ug/L	50	50.2	100	64-138	
Vinyl acetate	ug/L	200	314	157	74-154	L1
Vinyl chloride	ug/L	50	53.4	107	55-139	
Xylene (Total)	ug/L	150	157	105	73-119	
4-Bromofluorobenzene (S)	%			98	79-124	
Dibromofluoromethane (S)	%			99	82-128	
Toluene-d8 (S)	%			101	73-122	

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QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch: 788468

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968027, 50371968028, 50371968029, 50371968030

METHOD BLANK: 3606844

Matrix: Solid

Associated Lab Samples: 50371968027, 50371968028, 50371968029, 50371968030

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.0050	05/07/24 09:48	
1,1,1-Trichloroethane	mg/kg	ND	0.0050	05/07/24 09:48	
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0050	05/07/24 09:48	
1,1,2-Trichloroethane	mg/kg	ND	0.0050	05/07/24 09:48	
1,1-Dichloroethane	mg/kg	ND	0.0050	05/07/24 09:48	
1,1-Dichloroethene	mg/kg	ND	0.0050	05/07/24 09:48	
1,1-Dichloropropene	mg/kg	ND	0.0050	05/07/24 09:48	
1,2,3-Trichlorobenzene	mg/kg	ND	0.0050	05/07/24 09:48	
1,2,3-Trichloropropane	mg/kg	ND	0.0050	05/07/24 09:48	
1,2,4-Trichlorobenzene	mg/kg	ND	0.0050	05/07/24 09:48	
1,2,4-Trimethylbenzene	mg/kg	ND	0.0050	05/07/24 09:48	
1,2-Dibromoethane (EDB)	mg/kg	ND	0.0050	05/07/24 09:48	
1,2-Dichlorobenzene	mg/kg	ND	0.0050	05/07/24 09:48	
1,2-Dichloroethane	mg/kg	ND	0.0050	05/07/24 09:48	
1,2-Dichloropropane	mg/kg	ND	0.0050	05/07/24 09:48	
1,3,5-Trimethylbenzene	mg/kg	ND	0.0050	05/07/24 09:48	
1,3-Dichlorobenzene	mg/kg	ND	0.0050	05/07/24 09:48	
1,3-Dichloropropane	mg/kg	ND	0.0050	05/07/24 09:48	
1,4-Dichlorobenzene	mg/kg	ND	0.0050	05/07/24 09:48	
1-Methylnaphthalene	mg/kg	ND	0.010	05/07/24 09:48	
2,2-Dichloropropane	mg/kg	ND	0.0050	05/07/24 09:48	
2-Butanone (MEK)	mg/kg	ND	0.025	05/07/24 09:48	
2-Chlorotoluene	mg/kg	ND	0.0050	05/07/24 09:48	
2-Hexanone	mg/kg	ND	0.10	05/07/24 09:48	
2-Methylnaphthalene	mg/kg	ND	0.010	05/07/24 09:48	
4-Chlorotoluene	mg/kg	ND	0.0050	05/07/24 09:48	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.025	05/07/24 09:48	
Acetone	mg/kg	ND	0.10	05/07/24 09:48	
Acrolein	mg/kg	ND	0.10	05/07/24 09:48	
Acrylonitrile	mg/kg	ND	0.10	05/07/24 09:48	
Benzene	mg/kg	ND	0.0050	05/07/24 09:48	
Bromobenzene	mg/kg	ND	0.0050	05/07/24 09:48	
Bromochloromethane	mg/kg	ND	0.0050	05/07/24 09:48	
Bromodichloromethane	mg/kg	ND	0.0050	05/07/24 09:48	
Bromoform	mg/kg	ND	0.0050	05/07/24 09:48	
Bromomethane	mg/kg	ND	0.0050	05/07/24 09:48	
Carbon disulfide	mg/kg	ND	0.010	05/07/24 09:48	
Carbon tetrachloride	mg/kg	ND	0.0050	05/07/24 09:48	
Chlorobenzene	mg/kg	ND	0.0050	05/07/24 09:48	
Chloroethane	mg/kg	ND	0.0050	05/07/24 09:48	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

METHOD BLANK: 3606844

Matrix: Solid

Associated Lab Samples: 50371968027, 50371968028, 50371968029, 50371968030

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloroform	mg/kg	ND	0.0050	05/07/24 09:48	
Chloromethane	mg/kg	ND	0.0050	05/07/24 09:48	
cis-1,2-Dichloroethene	mg/kg	ND	0.0050	05/07/24 09:48	
cis-1,3-Dichloropropene	mg/kg	ND	0.0050	05/07/24 09:48	
Dibromochloromethane	mg/kg	ND	0.0050	05/07/24 09:48	
Dibromomethane	mg/kg	ND	0.0050	05/07/24 09:48	
Dichlorodifluoromethane	mg/kg	ND	0.0050	05/07/24 09:48	
Ethyl methacrylate	mg/kg	ND	0.10	05/07/24 09:48	
Ethylbenzene	mg/kg	ND	0.0050	05/07/24 09:48	
Hexachloro-1,3-butadiene	mg/kg	ND	0.0050	05/07/24 09:48	
Iodomethane	mg/kg	ND	0.10	05/07/24 09:48	
Isopropylbenzene (Cumene)	mg/kg	ND	0.0050	05/07/24 09:48	
Methyl-tert-butyl ether	mg/kg	ND	0.0050	05/07/24 09:48	
Methylene Chloride	mg/kg	ND	0.020	05/07/24 09:48	
n-Butylbenzene	mg/kg	ND	0.0050	05/07/24 09:48	
n-Hexane	mg/kg	ND	0.0050	05/07/24 09:48	
n-Propylbenzene	mg/kg	ND	0.0050	05/07/24 09:48	
Naphthalene	mg/kg	ND	0.0050	05/07/24 09:48	
p-Isopropyltoluene	mg/kg	ND	0.0050	05/07/24 09:48	
sec-Butylbenzene	mg/kg	ND	0.0050	05/07/24 09:48	
Styrene	mg/kg	ND	0.0050	05/07/24 09:48	
tert-Butylbenzene	mg/kg	ND	0.0050	05/07/24 09:48	
Tetrachloroethene	mg/kg	ND	0.0050	05/07/24 09:48	
Toluene	mg/kg	ND	0.0050	05/07/24 09:48	
trans-1,2-Dichloroethene	mg/kg	ND	0.0050	05/07/24 09:48	
trans-1,3-Dichloropropene	mg/kg	ND	0.0050	05/07/24 09:48	
trans-1,4-Dichloro-2-butene	mg/kg	ND	0.10	05/07/24 09:48	
Trichloroethene	mg/kg	ND	0.0050	05/07/24 09:48	
Trichlorofluoromethane	mg/kg	ND	0.0050	05/07/24 09:48	
Vinyl acetate	mg/kg	ND	0.10	05/07/24 09:48	
Vinyl chloride	mg/kg	ND	0.0050	05/07/24 09:48	
Xylene (Total)	mg/kg	ND	0.010	05/07/24 09:48	
4-Bromofluorobenzene (S)	%	100	63-132	05/07/24 09:48	
Dibromofluoromethane (S)	%	111	75-135	05/07/24 09:48	
Toluene-d8 (S)	%	95	65-148	05/07/24 09:48	

LABORATORY CONTROL SAMPLE: 3606845

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	0.05	0.055	111	70-129	
1,1,1-Trichloroethane	mg/kg	0.05	0.053	107	67-134	
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.049	99	67-122	
1,1,2-Trichloroethane	mg/kg	0.05	0.052	103	72-127	
1,1-Dichloroethane	mg/kg	0.05	0.048	96	72-121	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

LABORATORY CONTROL SAMPLE: 3606845

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	mg/kg	0.05	0.048	95	57-140	
1,1-Dichloropropene	mg/kg	0.05	0.046	92	76-133	
1,2,3-Trichlorobenzene	mg/kg	0.05	0.053	107	53-139	
1,2,3-Trichloropropane	mg/kg	0.05	0.053	106	70-124	
1,2,4-Trichlorobenzene	mg/kg	0.05	0.054	109	49-136	
1,2,4-Trimethylbenzene	mg/kg	0.05	0.050	100	60-122	
1,2-Dibromoethane (EDB)	mg/kg	0.05	0.055	110	71-126	
1,2-Dichlorobenzene	mg/kg	0.05	0.050	100	68-120	
1,2-Dichloroethane	mg/kg	0.05	0.058	115	67-129	
1,2-Dichloropropane	mg/kg	0.05	0.048	97	71-123	
1,3,5-Trimethylbenzene	mg/kg	0.05	0.046	93	62-118	
1,3-Dichlorobenzene	mg/kg	0.05	0.048	96	65-121	
1,3-Dichloropropane	mg/kg	0.05	0.051	101	73-127	
1,4-Dichlorobenzene	mg/kg	0.05	0.049	98	66-122	
1-Methylnaphthalene	mg/kg	0.05	0.054	108	52-137	
2,2-Dichloropropane	mg/kg	0.05	0.053	105	63-137	
2-Butanone (MEK)	mg/kg	0.25	0.25	101	59-136	
2-Chlorotoluene	mg/kg	0.05	0.046	91	67-121	
2-Hexanone	mg/kg	0.25	0.26	106	62-127	
2-Methylnaphthalene	mg/kg	0.05	0.054	108	50-141	
4-Chlorotoluene	mg/kg	0.05	0.049	97	66-122	
4-Methyl-2-pentanone (MIBK)	mg/kg	0.25	0.28	112	67-131	
Acetone	mg/kg	0.25	0.25	102	45-127	
Acrolein	mg/kg	1	1.4	140	42-158	
Acrylonitrile	mg/kg	0.25	0.27	108	69-127	
Benzene	mg/kg	0.05	0.046	92	69-125	
Bromobenzene	mg/kg	0.05	0.048	95	69-121	
Bromochloromethane	mg/kg	0.05	0.051	101	70-125	
Bromodichloromethane	mg/kg	0.05	0.057	114	77-130	
Bromoform	mg/kg	0.05	0.054	107	67-128	
Bromomethane	mg/kg	0.05	0.064	128	60-156	
Carbon disulfide	mg/kg	0.05	0.044	88	47-137	
Carbon tetrachloride	mg/kg	0.05	0.053	107	68-132	
Chlorobenzene	mg/kg	0.05	0.049	98	68-122	
Chloroethane	mg/kg	0.05	0.049	98	61-137	
Chloroform	mg/kg	0.05	0.052	103	71-124	
Chloromethane	mg/kg	0.05	0.045	89	56-131	
cis-1,2-Dichloroethene	mg/kg	0.05	0.047	93	70-123	
cis-1,3-Dichloropropene	mg/kg	0.05	0.053	106	72-136	
Dibromochloromethane	mg/kg	0.05	0.057	114	73-130	
Dibromomethane	mg/kg	0.05	0.054	108	74-123	
Dichlorodifluoromethane	mg/kg	0.05	0.028	56	23-127	
Ethyl methacrylate	mg/kg	0.05	.053J	105	70-131	
Ethylbenzene	mg/kg	0.05	0.047	94	65-124	
Hexachloro-1,3-butadiene	mg/kg	0.05	0.051	102	52-133	
Iodomethane	mg/kg	0.05	.069J	138	50-137	L1
Isopropylbenzene (Cumene)	mg/kg	0.05	0.046	91	65-126	

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## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

LABORATORY CONTROL SAMPLE: 3606845

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methyl-tert-butyl ether	mg/kg	0.05	0.059	119	69-128	
Methylene Chloride	mg/kg	0.05	0.058	117	61-128	
n-Butylbenzene	mg/kg	0.05	0.044	89	62-127	
n-Hexane	mg/kg	0.05	0.036	72	55-123	
n-Propylbenzene	mg/kg	0.05	0.044	88	67-124	
Naphthalene	mg/kg	0.05	0.047	93	60-133	
p-Isopropyltoluene	mg/kg	0.05	0.047	95	64-124	
sec-Butylbenzene	mg/kg	0.05	0.043	86	68-124	
Styrene	mg/kg	0.05	0.048	97	68-124	
tert-Butylbenzene	mg/kg	0.05	0.045	90	69-122	
Tetrachloroethene	mg/kg	0.05	0.047	94	62-128	
Toluene	mg/kg	0.05	0.045	91	60-122	
trans-1,2-Dichloroethene	mg/kg	0.05	0.047	93	67-124	
trans-1,3-Dichloropropene	mg/kg	0.05	0.058	116	68-136	
trans-1,4-Dichloro-2-butene	mg/kg	0.05	.059J	118	64-134	
Trichloroethene	mg/kg	0.05	0.047	95	68-128	
Trichlorofluoromethane	mg/kg	0.05	0.050	101	57-146	
Vinyl acetate	mg/kg	0.2	0.29	147	56-181	
Vinyl chloride	mg/kg	0.05	0.044	87	52-142	
Xylene (Total)	mg/kg	0.1	0.091	91	62-122	
4-Bromofluorobenzene (S)	%			102	63-132	
Dibromofluoromethane (S)	%			110	75-135	
Toluene-d8 (S)	%			97	65-148	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606846 3606847

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50372095003 Result	Spike Conc.	Spike Conc.	Conc.								
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.052	0.05	0.061	0.057	116	115	22-160	6	20		
1,1,1-Trichloroethane	mg/kg	ND	0.052	0.05	0.071	0.065	136	131	52-148	8	20		
1,1,1,2,2-Tetrachloroethane	mg/kg	ND	0.052	0.05	0.047	0.046	90	92	24-166	3	20		
1,1,2-Trichloroethane	mg/kg	ND	0.052	0.05	0.053	0.049	102	97	30-162	9	20		
1,1-Dichloroethane	mg/kg	ND	0.052	0.05	0.058	0.054	110	108	49-138	6	20		
1,1-Dichloroethene	mg/kg	ND	0.052	0.05	0.061	0.056	117	112	39-162	9	20		
1,1-Dichloropropene	mg/kg	ND	0.052	0.05	0.057	0.052	110	103	47-149	11	20		
1,2,3-Trichlorobenzene	mg/kg	ND	0.052	0.05	0.025	0.021	49	43	10-123	18	20		
1,2,3-Trichloropropane	mg/kg	ND	0.052	0.05	0.057	0.053	109	107	17-177	7	20		
1,2,4-Trichlorobenzene	mg/kg	ND	0.052	0.05	0.027	0.023	52	46	10-119	17	20		
1,2,4-Trimethylbenzene	mg/kg	ND	0.052	0.05	0.050	0.045	95	91	12-157	9	20		
1,2-Dibromoethane (EDB)	mg/kg	ND	0.052	0.05	0.057	0.054	109	109	36-141	5	20		
1,2-Dichlorobenzene	mg/kg	ND	0.052	0.05	0.040	0.037	76	75	10-136	6	20		
1,2-Dichloroethane	mg/kg	ND	0.052	0.05	0.070	0.064	134	127	48-138	10	20		
1,2-Dichloropropane	mg/kg	ND	0.052	0.05	0.053	0.051	102	101	45-140	5	20		
1,3,5-Trimethylbenzene	mg/kg	ND	0.052	0.05	0.049	0.046	94	92	11-170	8	20		
1,3-Dichlorobenzene	mg/kg	ND	0.052	0.05	0.041	0.037	78	75	10-135	8	20		

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3606846 3606847												
Parameter	Units	50372095003		MS	MSD	MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
1,3-Dichloropropane	mg/kg	ND	0.052	0.05	0.053	0.050	101	99	33-153	6	20	
1,4-Dichlorobenzene	mg/kg	ND	0.052	0.05	0.040	0.038	77	75	10-136	7	20	
1-Methylnaphthalene	mg/kg	ND	0.052	0.05	0.023	0.021	43	43	10-119	5	20	
2,2-Dichloropropane	mg/kg	ND	0.052	0.05	0.069	0.062	132	125	41-151	10	20	
2-Butanone (MEK)	mg/kg	ND	0.26	0.25	0.25	0.24	97	96	33-160	6	20	
2-Chlorotoluene	mg/kg	ND	0.052	0.05	0.046	0.044	88	88	10-174	5	20	
2-Hexanone	mg/kg	ND	0.26	0.25	0.26	0.24	99	96	18-155	8	20	
2-Methylnaphthalene	mg/kg	ND	0.052	0.05	0.019	0.019	36	38	10-122	1	20	
4-Chlorotoluene	mg/kg	ND	0.052	0.05	0.045	0.042	87	85	12-150	7	20	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.26	0.25	0.30	0.28	116	111	27-175	10	20	
Acetone	mg/kg	ND	0.26	0.25	0.28	0.26	108	104	18-159	9	20	
Acrolein	mg/kg	ND	1	1	0.97	0.91	92	91	10-155	6	20	
Acrylonitrile	mg/kg	ND	0.26	0.25	0.26	0.24	100	96	24-157	9	20	
Benzene	mg/kg	ND	0.052	0.05	0.056	0.052	108	104	48-137	9	20	
Bromobenzene	mg/kg	ND	0.052	0.05	0.040	0.038	77	77	10-136	5	20	
Bromochloromethane	mg/kg	ND	0.052	0.05	0.058	0.056	111	112	48-134	5	20	
Bromodichloromethane	mg/kg	ND	0.052	0.05	0.065	0.060	125	121	32-152	8	20	
Bromoform	mg/kg	ND	0.052	0.05	0.055	0.055	104	111	10-178	1	20	
Bromomethane	mg/kg	ND	0.052	0.05	0.072	0.070	137	141	31-164	2	20	
Carbon disulfide	mg/kg	ND	0.052	0.05	0.052	0.049	100	98	23-145	7	20	
Carbon tetrachloride	mg/kg	ND	0.052	0.05	0.072	0.066	138	132	43-148	10	20	
Chlorobenzene	mg/kg	ND	0.052	0.05	0.050	0.046	95	93	28-136	7	20	
Chloroethane	mg/kg	ND	0.052	0.05	0.058	0.055	110	111	34-160	4	20	
Chloroform	mg/kg	ND	0.052	0.05	0.064	0.059	122	118	54-136	8	20	
Chloromethane	mg/kg	ND	0.052	0.05	0.051	0.050	97	100	36-145	2	20	
cis-1,2-Dichloroethene	mg/kg	ND	0.052	0.05	0.056	0.053	107	105	52-132	7	20	
cis-1,3-Dichloropropene	mg/kg	ND	0.052	0.05	0.057	0.053	109	106	22-163	7	20	
Dibromochloromethane	mg/kg	ND	0.052	0.05	0.059	0.056	114	111	18-161	7	20	
Dibromomethane	mg/kg	ND	0.052	0.05	0.058	0.055	111	110	32-147	5	20	
Dichlorodifluoromethane	mg/kg	ND	0.052	0.05	0.041	0.039	79	78	10-138	7	20	
Ethyl methacrylate	mg/kg	ND	0.052	0.05	.022J	.023J	42	45	10-167		20	
Ethylbenzene	mg/kg	ND	0.052	0.05	0.050	0.046	95	92	24-150	8	20	
Hexachloro-1,3-butadiene	mg/kg	ND	0.052	0.05	0.042	0.030	81	61	10-154	33	20	R1
Iodomethane	mg/kg	ND	0.052	0.05	.078J	.077J	148	153	23-142		20	M0
Isopropylbenzene (Cumene)	mg/kg	ND	0.052	0.05	0.049	0.044	93	88	30-144	10	20	
Methyl-tert-butyl ether	mg/kg	ND	0.052	0.05	0.069	0.063	132	127	57-141	9	20	
Methylene Chloride	mg/kg	ND	0.052	0.05	0.054	0.050	103	100	40-140	8	20	
n-Butylbenzene	mg/kg	ND	0.052	0.05	0.040	0.032	77	65	10-156	21	20	R1
n-Hexane	mg/kg	ND	0.052	0.05	0.052	0.035	99	71	22-150	38	20	R1
n-Propylbenzene	mg/kg	ND	0.052	0.05	0.048	0.043	92	86	10-181	11	20	
Naphthalene	mg/kg	ND	0.052	0.05	0.025	0.023	48	47	10-132	7	20	
p-Isopropyltoluene	mg/kg	ND	0.052	0.05	0.049	0.043	93	85	10-171	13	20	
sec-Butylbenzene	mg/kg	ND	0.052	0.05	0.048	0.041	92	82	10-178	16	20	
Styrene	mg/kg	ND	0.052	0.05	0.045	0.043	85	86	12-138	3	20	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

Parameter	Units	3606846		3606847		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50372095003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
tert-Butylbenzene	mg/kg	ND	0.052	0.05	0.052	0.047	99	95	10-182	9	20		
Tetrachloroethene	mg/kg	ND	0.052	0.05	0.058	0.049	111	99	26-159	17	20		
Toluene	mg/kg	ND	0.052	0.05	0.052	0.047	99	94	28-150	9	20		
trans-1,2-Dichloroethene	mg/kg	ND	0.052	0.05	0.055	0.052	105	103	50-134	7	20		
trans-1,3-Dichloropropene	mg/kg	ND	0.052	0.05	0.058	0.053	111	107	17-153	8	20		
trans-1,4-Dichloro-2-butene	mg/kg	ND	0.052	0.05	.05J	.046J	95	92	10-146		20		
Trichloroethene	mg/kg	ND	0.052	0.05	0.056	0.052	107	104	33-155	7	20		
Trichlorofluoromethane	mg/kg	ND	0.052	0.05	0.073	0.065	139	130	37-163	12	20		
Vinyl acetate	mg/kg	ND	0.21	0.2	.068J	ND	32	0	10-183		20	M1	
Vinyl chloride	mg/kg	ND	0.052	0.05	0.052	0.051	99	101	37-161	2	20		
Xylene (Total)	mg/kg	ND	0.1	0.1	0.094	0.088	89	88	25-142	6	20		
4-Bromofluorobenzene (S)	%						97	99	63-132				
Dibromofluoromethane (S)	%						113	112	75-135				
Toluene-d8 (S)	%						100	100	65-148				

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QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch: 788979

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968031, 50371968032, 50371968033, 50371968034

METHOD BLANK: 3609377

Matrix: Solid

Associated Lab Samples: 50371968031, 50371968032, 50371968033, 50371968034

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.0050	05/09/24 11:56	
1,1,1-Trichloroethane	mg/kg	ND	0.0050	05/09/24 11:56	
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0050	05/09/24 11:56	
1,1,2-Trichloroethane	mg/kg	ND	0.0050	05/09/24 11:56	
1,1-Dichloroethane	mg/kg	ND	0.0050	05/09/24 11:56	
1,1-Dichloroethene	mg/kg	ND	0.0050	05/09/24 11:56	
1,1-Dichloropropene	mg/kg	ND	0.0050	05/09/24 11:56	
1,2,3-Trichlorobenzene	mg/kg	ND	0.0050	05/09/24 11:56	
1,2,3-Trichloropropane	mg/kg	ND	0.0050	05/09/24 11:56	
1,2,4-Trichlorobenzene	mg/kg	ND	0.0050	05/09/24 11:56	
1,2,4-Trimethylbenzene	mg/kg	ND	0.0050	05/09/24 11:56	
1,2-Dibromoethane (EDB)	mg/kg	ND	0.0050	05/09/24 11:56	
1,2-Dichlorobenzene	mg/kg	ND	0.0050	05/09/24 11:56	
1,2-Dichloroethane	mg/kg	ND	0.0050	05/09/24 11:56	
1,2-Dichloropropane	mg/kg	ND	0.0050	05/09/24 11:56	
1,3,5-Trimethylbenzene	mg/kg	ND	0.0050	05/09/24 11:56	
1,3-Dichlorobenzene	mg/kg	ND	0.0050	05/09/24 11:56	
1,3-Dichloropropane	mg/kg	ND	0.0050	05/09/24 11:56	
1,4-Dichlorobenzene	mg/kg	ND	0.0050	05/09/24 11:56	
1-Methylnaphthalene	mg/kg	ND	0.010	05/09/24 11:56	
2,2-Dichloropropane	mg/kg	ND	0.0050	05/09/24 11:56	
2-Butanone (MEK)	mg/kg	ND	0.025	05/09/24 11:56	
2-Chlorotoluene	mg/kg	ND	0.0050	05/09/24 11:56	
2-Hexanone	mg/kg	ND	0.10	05/09/24 11:56	
2-Methylnaphthalene	mg/kg	ND	0.010	05/09/24 11:56	
4-Chlorotoluene	mg/kg	ND	0.0050	05/09/24 11:56	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.025	05/09/24 11:56	
Acetone	mg/kg	ND	0.10	05/09/24 11:56	
Acrolein	mg/kg	ND	0.10	05/09/24 11:56	
Acrylonitrile	mg/kg	ND	0.10	05/09/24 11:56	
Benzene	mg/kg	ND	0.0050	05/09/24 11:56	
Bromobenzene	mg/kg	ND	0.0050	05/09/24 11:56	
Bromochloromethane	mg/kg	ND	0.0050	05/09/24 11:56	
Bromodichloromethane	mg/kg	ND	0.0050	05/09/24 11:56	
Bromoform	mg/kg	ND	0.0050	05/09/24 11:56	
Bromomethane	mg/kg	ND	0.0050	05/09/24 11:56	
Carbon disulfide	mg/kg	ND	0.010	05/09/24 11:56	
Carbon tetrachloride	mg/kg	ND	0.0050	05/09/24 11:56	
Chlorobenzene	mg/kg	ND	0.0050	05/09/24 11:56	
Chloroethane	mg/kg	ND	0.0050	05/09/24 11:56	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

METHOD BLANK: 3609377

Matrix: Solid

Associated Lab Samples: 50371968031, 50371968032, 50371968033, 50371968034

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloroform	mg/kg	ND	0.0050	05/09/24 11:56	
Chloromethane	mg/kg	ND	0.0050	05/09/24 11:56	
cis-1,2-Dichloroethene	mg/kg	ND	0.0050	05/09/24 11:56	
cis-1,3-Dichloropropene	mg/kg	ND	0.0050	05/09/24 11:56	
Dibromochloromethane	mg/kg	ND	0.0050	05/09/24 11:56	
Dibromomethane	mg/kg	ND	0.0050	05/09/24 11:56	
Dichlorodifluoromethane	mg/kg	ND	0.0050	05/09/24 11:56	
Ethyl methacrylate	mg/kg	ND	0.10	05/09/24 11:56	
Ethylbenzene	mg/kg	ND	0.0050	05/09/24 11:56	
Hexachloro-1,3-butadiene	mg/kg	ND	0.0050	05/09/24 11:56	
Iodomethane	mg/kg	ND	0.10	05/09/24 11:56	
Isopropylbenzene (Cumene)	mg/kg	ND	0.0050	05/09/24 11:56	
Methyl-tert-butyl ether	mg/kg	ND	0.0050	05/09/24 11:56	
Methylene Chloride	mg/kg	ND	0.020	05/09/24 11:56	
n-Butylbenzene	mg/kg	ND	0.0050	05/09/24 11:56	
n-Hexane	mg/kg	ND	0.0050	05/09/24 11:56	
n-Propylbenzene	mg/kg	ND	0.0050	05/09/24 11:56	
Naphthalene	mg/kg	ND	0.0050	05/09/24 11:56	
p-Isopropyltoluene	mg/kg	ND	0.0050	05/09/24 11:56	
sec-Butylbenzene	mg/kg	ND	0.0050	05/09/24 11:56	
Styrene	mg/kg	ND	0.0050	05/09/24 11:56	
tert-Butylbenzene	mg/kg	ND	0.0050	05/09/24 11:56	
Tetrachloroethene	mg/kg	ND	0.0050	05/09/24 11:56	
Toluene	mg/kg	ND	0.0050	05/09/24 11:56	
trans-1,2-Dichloroethene	mg/kg	ND	0.0050	05/09/24 11:56	
trans-1,3-Dichloropropene	mg/kg	ND	0.0050	05/09/24 11:56	
trans-1,4-Dichloro-2-butene	mg/kg	ND	0.10	05/09/24 11:56	
Trichloroethene	mg/kg	ND	0.0050	05/09/24 11:56	
Trichlorofluoromethane	mg/kg	ND	0.0050	05/09/24 11:56	
Vinyl acetate	mg/kg	ND	0.10	05/09/24 11:56	
Vinyl chloride	mg/kg	ND	0.0050	05/09/24 11:56	
Xylene (Total)	mg/kg	ND	0.010	05/09/24 11:56	
4-Bromofluorobenzene (S)	%	105	63-132	05/09/24 11:56	
Dibromofluoromethane (S)	%	104	75-135	05/09/24 11:56	
Toluene-d8 (S)	%	96	65-148	05/09/24 11:56	

LABORATORY CONTROL SAMPLE: 3609378

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	0.05	0.050	100	70-129	
1,1,1-Trichloroethane	mg/kg	0.05	0.047	94	67-134	
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.050	101	67-122	
1,1,2-Trichloroethane	mg/kg	0.05	0.052	105	72-127	
1,1-Dichloroethane	mg/kg	0.05	0.046	93	72-121	

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**REPORT OF LABORATORY ANALYSIS**

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

LABORATORY CONTROL SAMPLE: 3609378

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	mg/kg	0.05	0.046	93	57-140	
1,1-Dichloropropene	mg/kg	0.05	0.052	104	76-133	
1,2,3-Trichlorobenzene	mg/kg	0.05	0.050	101	53-139	
1,2,3-Trichloropropane	mg/kg	0.05	0.049	98	70-124	
1,2,4-Trichlorobenzene	mg/kg	0.05	0.048	96	49-136	
1,2,4-Trimethylbenzene	mg/kg	0.05	0.048	97	60-122	
1,2-Dibromoethane (EDB)	mg/kg	0.05	0.047	95	71-126	
1,2-Dichlorobenzene	mg/kg	0.05	0.049	98	68-120	
1,2-Dichloroethane	mg/kg	0.05	0.050	101	67-129	
1,2-Dichloropropane	mg/kg	0.05	0.049	99	71-123	
1,3,5-Trimethylbenzene	mg/kg	0.05	0.047	94	62-118	
1,3-Dichlorobenzene	mg/kg	0.05	0.048	97	65-121	
1,3-Dichloropropane	mg/kg	0.05	0.052	105	73-127	
1,4-Dichlorobenzene	mg/kg	0.05	0.048	96	66-122	
1-Methylnaphthalene	mg/kg	0.05	0.048	96	52-137	
2,2-Dichloropropane	mg/kg	0.05	0.046	93	63-137	
2-Butanone (MEK)	mg/kg	0.25	0.23	93	59-136	
2-Chlorotoluene	mg/kg	0.05	0.049	98	67-121	
2-Hexanone	mg/kg	0.25	0.25	99	62-127	
2-Methylnaphthalene	mg/kg	0.05	0.051	102	50-141	
4-Chlorotoluene	mg/kg	0.05	0.048	96	66-122	
4-Methyl-2-pentanone (MIBK)	mg/kg	0.25	0.26	102	67-131	
Acetone	mg/kg	0.25	0.21	85	45-127	
Acrolein	mg/kg	1	0.84	84	42-158	
Acrylonitrile	mg/kg	0.25	0.23	93	69-127	
Benzene	mg/kg	0.05	0.049	99	69-125	
Bromobenzene	mg/kg	0.05	0.052	104	69-121	
Bromochloromethane	mg/kg	0.05	0.047	95	70-125	
Bromodichloromethane	mg/kg	0.05	0.051	103	77-130	
Bromoform	mg/kg	0.05	0.053	107	67-128	
Bromomethane	mg/kg	0.05	0.049	99	60-156	
Carbon disulfide	mg/kg	0.05	0.044	89	47-137	
Carbon tetrachloride	mg/kg	0.05	0.046	93	68-132	
Chlorobenzene	mg/kg	0.05	0.048	96	68-122	
Chloroethane	mg/kg	0.05	0.043	86	61-137	
Chloroform	mg/kg	0.05	0.048	97	71-124	
Chloromethane	mg/kg	0.05	0.045	91	56-131	
cis-1,2-Dichloroethene	mg/kg	0.05	0.047	94	70-123	
cis-1,3-Dichloropropene	mg/kg	0.05	0.055	111	72-136	
Dibromochloromethane	mg/kg	0.05	0.051	103	73-130	
Dibromomethane	mg/kg	0.05	0.048	96	74-123	
Dichlorodifluoromethane	mg/kg	0.05	0.037	74	23-127	
Ethyl methacrylate	mg/kg	0.05	.054J	108	70-131	
Ethylbenzene	mg/kg	0.05	0.048	97	65-124	
Hexachloro-1,3-butadiene	mg/kg	0.05	0.046	93	52-133	
Iodomethane	mg/kg	0.05	.04J	81	50-137	
Isopropylbenzene (Cumene)	mg/kg	0.05	0.049	98	65-126	

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## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

LABORATORY CONTROL SAMPLE: 3609378

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methyl-tert-butyl ether	mg/kg	0.05	0.050	100	69-128	
Methylene Chloride	mg/kg	0.05	0.051	102	61-128	
n-Butylbenzene	mg/kg	0.05	0.050	100	62-127	
n-Hexane	mg/kg	0.05	0.047	94	55-123	
n-Propylbenzene	mg/kg	0.05	0.049	98	67-124	
Naphthalene	mg/kg	0.05	0.049	99	60-133	
p-Isopropyltoluene	mg/kg	0.05	0.048	97	64-124	
sec-Butylbenzene	mg/kg	0.05	0.049	98	68-124	
Styrene	mg/kg	0.05	0.049	99	68-124	
tert-Butylbenzene	mg/kg	0.05	0.049	99	69-122	
Tetrachloroethene	mg/kg	0.05	0.048	96	62-128	
Toluene	mg/kg	0.05	0.048	97	60-122	
trans-1,2-Dichloroethene	mg/kg	0.05	0.047	94	67-124	
trans-1,3-Dichloropropene	mg/kg	0.05	0.056	112	68-136	
trans-1,4-Dichloro-2-butene	mg/kg	0.05	.051J	103	64-134	
Trichloroethene	mg/kg	0.05	0.047	95	68-128	
Trichlorofluoromethane	mg/kg	0.05	0.043	87	57-146	
Vinyl acetate	mg/kg	0.2	0.24	119	56-181	
Vinyl chloride	mg/kg	0.05	0.047	94	52-142	
Xylene (Total)	mg/kg	0.15	0.14	96	62-122	
4-Bromofluorobenzene (S)	%			100	63-132	
Dibromofluoromethane (S)	%			97	75-135	
Toluene-d8 (S)	%			99	65-148	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609379 3609380

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50372515003 Result	Spike Conc.	Spike Conc.	Result								
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.054	0.052	0.039	0.040	73	77	22-160	3	20		
1,1,1-Trichloroethane	mg/kg	ND	0.054	0.052	0.041	0.041	77	79	52-148	0	20		
1,1,1,2,2-Tetrachloroethane	mg/kg	ND	0.054	0.052	0.042	0.043	79	82	24-166	2	20		
1,1,2-Trichloroethane	mg/kg	ND	0.054	0.052	0.046	0.047	87	91	30-162	2	20		
1,1-Dichloroethane	mg/kg	ND	0.054	0.052	0.044	0.043	82	82	49-138	2	20		
1,1-Dichloroethene	mg/kg	ND	0.054	0.052	0.042	0.041	79	78	39-162	4	20		
1,1-Dichloropropene	mg/kg	ND	0.054	0.052	0.045	0.043	84	83	47-149	5	20		
1,2,3-Trichlorobenzene	mg/kg	ND	0.054	0.052	0.023	0.023	43	45	10-123	2	20		
1,2,3-Trichloropropane	mg/kg	ND	0.054	0.052	0.044	0.044	83	85	17-177	1	20		
1,2,4-Trichlorobenzene	mg/kg	ND	0.054	0.052	0.022	0.023	42	44	10-119	2	20		
1,2,4-Trimethylbenzene	mg/kg	ND	0.054	0.052	0.029	0.030	55	58	12-157	2	20		
1,2-Dibromoethane (EDB)	mg/kg	ND	0.054	0.052	0.043	0.044	80	85	36-141	3	20		
1,2-Dichlorobenzene	mg/kg	ND	0.054	0.052	0.031	0.032	58	62	10-136	4	20		
1,2-Dichloroethane	mg/kg	ND	0.054	0.052	0.048	0.047	90	91	48-138	1	20		
1,2-Dichloropropane	mg/kg	ND	0.054	0.052	0.046	0.046	87	88	45-140	1	20		
1,3,5-Trimethylbenzene	mg/kg	ND	0.054	0.052	0.030	0.029	56	56	11-170	1	20		
1,3-Dichlorobenzene	mg/kg	ND	0.054	0.052	0.030	0.030	56	58	10-135	2	20		

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3609379 3609380												
Parameter	Units	50372515003		MS	MSD	MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
1,3-Dichloropropane	mg/kg	ND	0.054	0.052	0.047	0.048	88	91	33-153	1	20	
1,4-Dichlorobenzene	mg/kg	ND	0.054	0.052	0.030	0.031	56	59	10-136	4	20	
1-Methylnaphthalene	mg/kg	ND	0.054	0.052	0.021	0.021	39	41	10-119	2	20	
2,2-Dichloropropane	mg/kg	ND	0.054	0.052	0.043	0.042	81	81	41-151	2	20	
2-Butanone (MEK)	mg/kg	ND	0.26	0.26	0.25	0.25	95	97	33-160	1	20	
2-Chlorotoluene	mg/kg	ND	0.054	0.052	0.032	0.033	61	63	10-174	1	20	
2-Hexanone	mg/kg	ND	0.26	0.26	0.24	0.25	91	95	18-155	3	20	
2-Methylnaphthalene	mg/kg	ND	0.054	0.052	0.021	0.022	40	42	10-122	4	20	
4-Chlorotoluene	mg/kg	ND	0.054	0.052	0.031	0.031	57	60	12-150	2	20	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.26	0.26	0.27	0.27	101	105	27-175	2	20	
Acetone	mg/kg	ND	0.26	0.26	0.26	0.25	96	94	18-159	4	20	
Acrolein	mg/kg	ND	1.1	1	0.71	0.69	67	66	10-155	4	20	
Acrylonitrile	mg/kg	ND	0.26	0.26	0.23	0.23	87	88	24-157	1	20	
Benzene	mg/kg	ND	0.054	0.052	0.044	0.043	82	83	48-137	1	20	
Bromobenzene	mg/kg	ND	0.054	0.052	0.032	0.038	59	73	10-136	19	20	
Bromochloromethane	mg/kg	ND	0.054	0.052	0.047	0.047	88	90	48-134	0	20	
Bromodichloromethane	mg/kg	ND	0.054	0.052	0.044	0.045	83	86	32-152	2	20	
Bromoform	mg/kg	ND	0.054	0.052	0.041	0.045	77	86	10-178	8	20	
Bromomethane	mg/kg	ND	0.054	0.052	0.046	0.047	87	90	31-164	1	20	
Carbon disulfide	mg/kg	ND	0.054	0.052	0.038	0.037	71	71	23-145	2	20	
Carbon tetrachloride	mg/kg	ND	0.054	0.052	0.039	0.039	73	74	43-148	0	20	
Chlorobenzene	mg/kg	ND	0.054	0.052	0.035	0.035	65	67	28-136	0	20	
Chloroethane	mg/kg	ND	0.054	0.052	0.040	0.038	75	74	34-160	4	20	
Chloroform	mg/kg	ND	0.054	0.052	0.043	0.043	81	83	54-136	1	20	
Chloromethane	mg/kg	ND	0.054	0.052	0.043	0.041	80	79	36-145	3	20	
cis-1,2-Dichloroethene	mg/kg	ND	0.054	0.052	0.043	0.042	82	81	52-132	3	20	
cis-1,3-Dichloropropene	mg/kg	ND	0.054	0.052	0.047	0.048	88	91	22-163	1	20	
Dibromochloromethane	mg/kg	ND	0.054	0.052	0.042	0.044	78	85	18-161	7	20	
Dibromomethane	mg/kg	ND	0.054	0.052	0.045	0.045	85	86	32-147	1	20	
Dichlorodifluoromethane	mg/kg	ND	0.054	0.052	0.034	0.033	63	64	10-138	2	20	
Ethyl methacrylate	mg/kg	ND	0.054	0.052	.034J	.035J	64	67	10-167		20	
Ethylbenzene	mg/kg	ND	0.054	0.052	0.034	0.034	65	66	24-150	1	20	
Hexachloro-1,3-butadiene	mg/kg	ND	0.054	0.052	0.019	0.021	36	39	10-154	8	20	
Iodomethane	mg/kg	ND	0.054	0.052	.042J	.04J	78	78	23-142		20	
Isopropylbenzene (Cumene)	mg/kg	ND	0.054	0.052	0.032	0.032	60	62	30-144	0	20	
Methyl-tert-butyl ether	mg/kg	ND	0.054	0.052	0.051	0.051	97	99	57-141	0	20	
Methylene Chloride	mg/kg	ND	0.054	0.052	0.045	0.046	85	88	40-140	2	20	
n-Butylbenzene	mg/kg	ND	0.054	0.052	0.024	0.025	45	47	10-156	2	20	
n-Hexane	mg/kg	ND	0.054	0.052	0.060	0.047	112	89	22-150	25	20	R1
n-Propylbenzene	mg/kg	ND	0.054	0.052	0.030	0.030	57	59	10-181	1	20	
Naphthalene	mg/kg	ND	0.054	0.052	0.030	0.031	55	60	10-132	5	20	
p-Isopropyltoluene	mg/kg	ND	0.054	0.052	0.027	0.027	51	52	10-171	1	20	
sec-Butylbenzene	mg/kg	ND	0.054	0.052	0.029	0.029	54	56	10-178	1	20	
Styrene	mg/kg	ND	0.054	0.052	0.034	0.034	63	65	12-138	1	20	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

Parameter	Units	MPL Putnam		MPL Putnam		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50372515003 Result	MS Spike Conc.	MSD Spike Conc.	3609379 Result								
tert-Butylbenzene	mg/kg	ND	0.054	0.052	0.032	0.032	60	61	10-182	1	20		
Tetrachloroethene	mg/kg	ND	0.054	0.052	0.036	0.035	68	68	26-159	3	20		
Toluene	mg/kg	ND	0.054	0.052	0.039	0.038	73	73	28-150	2	20		
trans-1,2-Dichloroethene	mg/kg	ND	0.054	0.052	0.040	0.040	74	77	50-134	1	20		
trans-1,3-Dichloropropene	mg/kg	ND	0.054	0.052	0.047	0.048	88	93	17-153	2	20		
trans-1,4-Dichloro-2-butene	mg/kg	ND	0.054	0.052	.041J	.042J	76	82	10-146		20		
Trichloroethene	mg/kg	ND	0.054	0.052	0.041	0.039	78	76	33-155	5	20		
Trichlorofluoromethane	mg/kg	ND	0.054	0.052	0.041	0.040	77	76	37-163	3	20		
Vinyl acetate	mg/kg	ND	0.21	0.21	.06J	.06J	28	29	10-183		20		
Vinyl chloride	mg/kg	ND	0.054	0.052	0.042	0.041	79	79	37-161	2	20		
Xylene (Total)	mg/kg	ND	0.16	0.16	0.10	0.10	63	64	25-142	0	20		
4-Bromofluorobenzene (S)	%						96	99	63-132				
Dibromofluoromethane (S)	%						96	97	75-135				
Toluene-d8 (S)	%						99	99	65-148				

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QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch: 789352

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968035

METHOD BLANK: 3611541

Matrix: Solid

Associated Lab Samples: 50371968035

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.0050	05/10/24 16:27	
1,1,1-Trichloroethane	mg/kg	ND	0.0050	05/10/24 16:27	
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0050	05/10/24 16:27	
1,1,2-Trichloroethane	mg/kg	ND	0.0050	05/10/24 16:27	
1,1-Dichloroethane	mg/kg	ND	0.0050	05/10/24 16:27	
1,1-Dichloroethene	mg/kg	ND	0.0050	05/10/24 16:27	
1,1-Dichloropropene	mg/kg	ND	0.0050	05/10/24 16:27	
1,2,3-Trichlorobenzene	mg/kg	ND	0.0050	05/10/24 16:27	
1,2,3-Trichloropropane	mg/kg	ND	0.0050	05/10/24 16:27	
1,2,4-Trichlorobenzene	mg/kg	ND	0.0050	05/10/24 16:27	
1,2,4-Trimethylbenzene	mg/kg	ND	0.0050	05/10/24 16:27	
1,2-Dibromoethane (EDB)	mg/kg	ND	0.0050	05/10/24 16:27	
1,2-Dichlorobenzene	mg/kg	ND	0.0050	05/10/24 16:27	
1,2-Dichloroethane	mg/kg	ND	0.0050	05/10/24 16:27	
1,2-Dichloropropane	mg/kg	ND	0.0050	05/10/24 16:27	
1,3,5-Trimethylbenzene	mg/kg	ND	0.0050	05/10/24 16:27	
1,3-Dichlorobenzene	mg/kg	ND	0.0050	05/10/24 16:27	
1,3-Dichloropropane	mg/kg	ND	0.0050	05/10/24 16:27	
1,4-Dichlorobenzene	mg/kg	ND	0.0050	05/10/24 16:27	
1-Methylnaphthalene	mg/kg	ND	0.010	05/10/24 16:27	
2,2-Dichloropropane	mg/kg	ND	0.0050	05/10/24 16:27	
2-Butanone (MEK)	mg/kg	ND	0.025	05/10/24 16:27	
2-Chlorotoluene	mg/kg	ND	0.0050	05/10/24 16:27	
2-Hexanone	mg/kg	ND	0.10	05/10/24 16:27	
2-Methylnaphthalene	mg/kg	ND	0.010	05/10/24 16:27	
4-Chlorotoluene	mg/kg	ND	0.0050	05/10/24 16:27	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.025	05/10/24 16:27	
Acetone	mg/kg	ND	0.10	05/10/24 16:27	
Acrolein	mg/kg	ND	0.10	05/10/24 16:27	
Acrylonitrile	mg/kg	ND	0.10	05/10/24 16:27	
Benzene	mg/kg	ND	0.0050	05/10/24 16:27	
Bromobenzene	mg/kg	ND	0.0050	05/10/24 16:27	
Bromochloromethane	mg/kg	ND	0.0050	05/10/24 16:27	
Bromodichloromethane	mg/kg	ND	0.0050	05/10/24 16:27	
Bromoform	mg/kg	ND	0.0050	05/10/24 16:27	
Bromomethane	mg/kg	ND	0.0050	05/10/24 16:27	
Carbon disulfide	mg/kg	ND	0.010	05/10/24 16:27	
Carbon tetrachloride	mg/kg	ND	0.0050	05/10/24 16:27	
Chlorobenzene	mg/kg	ND	0.0050	05/10/24 16:27	
Chloroethane	mg/kg	ND	0.0050	05/10/24 16:27	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

METHOD BLANK: 3611541

Matrix: Solid

Associated Lab Samples: 50371968035

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloroform	mg/kg	ND	0.0050	05/10/24 16:27	
Chloromethane	mg/kg	ND	0.0050	05/10/24 16:27	
cis-1,2-Dichloroethene	mg/kg	ND	0.0050	05/10/24 16:27	
cis-1,3-Dichloropropene	mg/kg	ND	0.0050	05/10/24 16:27	
Dibromochloromethane	mg/kg	ND	0.0050	05/10/24 16:27	
Dibromomethane	mg/kg	ND	0.0050	05/10/24 16:27	
Dichlorodifluoromethane	mg/kg	ND	0.0050	05/10/24 16:27	
Ethyl methacrylate	mg/kg	ND	0.10	05/10/24 16:27	
Ethylbenzene	mg/kg	ND	0.0050	05/10/24 16:27	
Hexachloro-1,3-butadiene	mg/kg	ND	0.0050	05/10/24 16:27	
Iodomethane	mg/kg	ND	0.10	05/10/24 16:27	
Isopropylbenzene (Cumene)	mg/kg	ND	0.0050	05/10/24 16:27	
Methyl-tert-butyl ether	mg/kg	ND	0.0050	05/10/24 16:27	
Methylene Chloride	mg/kg	ND	0.020	05/10/24 16:27	
n-Butylbenzene	mg/kg	ND	0.0050	05/10/24 16:27	
n-Hexane	mg/kg	ND	0.0050	05/10/24 16:27	
n-Propylbenzene	mg/kg	ND	0.0050	05/10/24 16:27	
Naphthalene	mg/kg	ND	0.0050	05/10/24 16:27	
p-Isopropyltoluene	mg/kg	ND	0.0050	05/10/24 16:27	
sec-Butylbenzene	mg/kg	ND	0.0050	05/10/24 16:27	
Styrene	mg/kg	ND	0.0050	05/10/24 16:27	
tert-Butylbenzene	mg/kg	ND	0.0050	05/10/24 16:27	
Tetrachloroethene	mg/kg	ND	0.0050	05/10/24 16:27	
Toluene	mg/kg	ND	0.0050	05/10/24 16:27	
trans-1,2-Dichloroethene	mg/kg	ND	0.0050	05/10/24 16:27	
trans-1,3-Dichloropropene	mg/kg	ND	0.0050	05/10/24 16:27	
trans-1,4-Dichloro-2-butene	mg/kg	ND	0.10	05/10/24 16:27	
Trichloroethene	mg/kg	ND	0.0050	05/10/24 16:27	
Trichlorofluoromethane	mg/kg	ND	0.0050	05/10/24 16:27	
Vinyl acetate	mg/kg	ND	0.10	05/10/24 16:27	
Vinyl chloride	mg/kg	ND	0.0050	05/10/24 16:27	
Xylene (Total)	mg/kg	ND	0.010	05/10/24 16:27	
4-Bromofluorobenzene (S)	%	99	63-132	05/10/24 16:27	
Dibromofluoromethane (S)	%	99	75-135	05/10/24 16:27	
Toluene-d8 (S)	%	100	65-148	05/10/24 16:27	

LABORATORY CONTROL SAMPLE: 3611542

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	0.05	0.044	87	70-129	
1,1,1-Trichloroethane	mg/kg	0.05	0.043	86	67-134	
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.051	103	67-122	
1,1,2-Trichloroethane	mg/kg	0.05	0.051	102	72-127	
1,1-Dichloroethane	mg/kg	0.05	0.049	98	72-121	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

LABORATORY CONTROL SAMPLE: 3611542

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	mg/kg	0.05	0.047	93	57-140	
1,1-Dichloropropene	mg/kg	0.05	0.050	101	76-133	
1,2,3-Trichlorobenzene	mg/kg	0.05	0.045	90	53-139	
1,2,3-Trichloropropane	mg/kg	0.05	0.048	97	70-124	
1,2,4-Trichlorobenzene	mg/kg	0.05	0.043	87	49-136	
1,2,4-Trimethylbenzene	mg/kg	0.05	0.044	87	60-122	
1,2-Dibromoethane (EDB)	mg/kg	0.05	0.050	100	71-126	
1,2-Dichlorobenzene	mg/kg	0.05	0.046	91	68-120	
1,2-Dichloroethane	mg/kg	0.05	0.049	98	67-129	
1,2-Dichloropropane	mg/kg	0.05	0.052	104	71-123	
1,3,5-Trimethylbenzene	mg/kg	0.05	0.043	86	62-118	
1,3-Dichlorobenzene	mg/kg	0.05	0.046	91	65-121	
1,3-Dichloropropane	mg/kg	0.05	0.051	102	73-127	
1,4-Dichlorobenzene	mg/kg	0.05	0.046	91	66-122	
1-Methylnaphthalene	mg/kg	0.05	0.054	108	52-137	
2,2-Dichloropropane	mg/kg	0.05	0.043	86	63-137	
2-Butanone (MEK)	mg/kg	0.25	0.28	111	59-136	
2-Chlorotoluene	mg/kg	0.05	0.044	89	67-121	
2-Hexanone	mg/kg	0.25	0.27	108	62-127	
2-Methylnaphthalene	mg/kg	0.05	0.046	91	50-141	
4-Chlorotoluene	mg/kg	0.05	0.046	91	66-122	
4-Methyl-2-pentanone (MIBK)	mg/kg	0.25	0.28	110	67-131	
Acetone	mg/kg	0.25	0.27	109	45-127	
Acrolein	mg/kg	1	1.3	128	42-158	
Acrylonitrile	mg/kg	0.25	0.27	109	69-127	
Benzene	mg/kg	0.05	0.050	100	69-125	
Bromobenzene	mg/kg	0.05	0.045	91	69-121	
Bromochloromethane	mg/kg	0.05	0.051	102	70-125	
Bromodichloromethane	mg/kg	0.05	0.048	96	77-130	
Bromoform	mg/kg	0.05	0.044	88	67-128	
Bromomethane	mg/kg	0.05	0.071	141	60-156	
Carbon disulfide	mg/kg	0.05	0.047	93	47-137	
Carbon tetrachloride	mg/kg	0.05	0.042	83	68-132	
Chlorobenzene	mg/kg	0.05	0.046	92	68-122	
Chloroethane	mg/kg	0.05	0.059	118	61-137	
Chloroform	mg/kg	0.05	0.048	96	71-124	
Chloromethane	mg/kg	0.05	0.061	122	56-131	
cis-1,2-Dichloroethene	mg/kg	0.05	0.050	101	70-123	
cis-1,3-Dichloropropene	mg/kg	0.05	0.050	99	72-136	
Dibromochloromethane	mg/kg	0.05	0.046	92	73-130	
Dibromomethane	mg/kg	0.05	0.051	103	74-123	
Dichlorodifluoromethane	mg/kg	0.05	0.040	80	23-127	
Ethyl methacrylate	mg/kg	0.05	.054J	109	70-131	
Ethylbenzene	mg/kg	0.05	0.047	94	65-124	
Hexachloro-1,3-butadiene	mg/kg	0.05	0.042	84	52-133	
Iodomethane	mg/kg	0.05	.046J	91	50-137	
Isopropylbenzene (Cumene)	mg/kg	0.05	0.045	90	65-126	

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## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: MPL Putnam  
Pace Project No.: 50373379

LABORATORY CONTROL SAMPLE: 3611542

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methyl-tert-butyl ether	mg/kg	0.05	0.048	95	69-128	
Methylene Chloride	mg/kg	0.05	0.051	101	61-128	
n-Butylbenzene	mg/kg	0.05	0.045	91	62-127	
n-Hexane	mg/kg	0.05	0.042	84	55-123	
n-Propylbenzene	mg/kg	0.05	0.046	92	67-124	
Naphthalene	mg/kg	0.05	0.043	86	60-133	
p-Isopropyltoluene	mg/kg	0.05	0.044	87	64-124	
sec-Butylbenzene	mg/kg	0.05	0.046	92	68-124	
Styrene	mg/kg	0.05	0.047	93	68-124	
tert-Butylbenzene	mg/kg	0.05	0.043	86	69-122	
Tetrachloroethene	mg/kg	0.05	0.045	89	62-128	
Toluene	mg/kg	0.05	0.047	95	60-122	
trans-1,2-Dichloroethene	mg/kg	0.05	0.050	99	67-124	
trans-1,3-Dichloropropene	mg/kg	0.05	0.046	93	68-136	
trans-1,4-Dichloro-2-butene	mg/kg	0.05	.048J	96	64-134	
Trichloroethene	mg/kg	0.05	0.046	92	68-128	
Trichlorofluoromethane	mg/kg	0.05	0.050	100	57-146	
Vinyl acetate	mg/kg	0.2	0.27	137	56-181	
Vinyl chloride	mg/kg	0.05	0.061	122	52-142	
Xylene (Total)	mg/kg	0.15	0.14	90	62-122	
4-Bromofluorobenzene (S)	%			97	63-132	
Dibromofluoromethane (S)	%			100	75-135	
Toluene-d8 (S)	%			101	65-148	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611543 3611544

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50372126015 Result	Spike Conc.	Spike Conc.	Conc.								
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.11	0.099	0.075	0.084	70	85	22-160	12	20		
1,1,1-Trichloroethane	mg/kg	0.023	0.11	0.099	0.085	0.12	58	93	52-148	31	20	R1	
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.11	0.099	0.097	0.10	91	105	24-166	7	20		
1,1,2-Trichloroethane	mg/kg	ND	0.11	0.099	0.086	0.083	81	84	30-162	3	20		
1,1-Dichloroethane	mg/kg	ND	0.11	0.099	0.083	0.096	78	97	49-138	14	20		
1,1-Dichloroethene	mg/kg	ND	0.11	0.099	0.081	0.10	76	101	39-162	22	20	R1	
1,1-Dichloropropene	mg/kg	ND	0.11	0.099	0.081	0.10	77	105	47-149	24	20	R1	
1,2,3-Trichlorobenzene	mg/kg	ND	0.11	0.099	0.042	0.028	39	28	10-123	40	20	R1	
1,2,3-Trichloropropane	mg/kg	ND	0.11	0.099	0.089	0.096	84	97	17-177	8	20		
1,2,4-Trichlorobenzene	mg/kg	ND	0.11	0.099	0.046	0.033	43	34	10-119	32	20	R1	
1,2,4-Trimethylbenzene	mg/kg	ND	0.11	0.099	0.081	0.11	75	114	12-157	34	20	R1	
1,2-Dibromoethane (EDB)	mg/kg	ND	0.11	0.099	0.072	0.063	68	64	36-141	14	20		
1,2-Dichlorobenzene	mg/kg	ND	0.11	0.099	0.065	0.052	61	53	10-136	22	20	R1	
1,2-Dichloroethane	mg/kg	ND	0.11	0.099	0.079	0.073	74	73	48-138	8	20		
1,2-Dichloropropane	mg/kg	ND	0.11	0.099	0.084	0.086	79	87	45-140	3	20		
1,3,5-Trimethylbenzene	mg/kg	ND	0.11	0.099	0.085	0.14	80	137	11-170	46	20	R1	
1,3-Dichlorobenzene	mg/kg	ND	0.11	0.099	0.071	0.064	67	65	10-135	9	20		

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611543 3611544													
Parameter	Units	50372126015		MS	MSD	3611544		% Rec	% Rec	% Rec	Limits	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
1,3-Dichloropropane	mg/kg	ND	0.11	0.099	0.081	0.077	77	77	33-153	6	20		
1,4-Dichlorobenzene	mg/kg	ND	0.11	0.099	0.067	0.058	63	58	10-136	14	20		
1-Methylnaphthalene	mg/kg	ND	0.11	0.099	0.023	.017J	22	17	10-119		20		
2,2-Dichloropropane	mg/kg	ND	0.11	0.099	0.077	0.095	73	96	41-151	21	20	R1	
2-Butanone (MEK)	mg/kg	ND	0.53	0.49	0.56	0.64	104	128	33-160	14	20		
2-Chlorotoluene	mg/kg	ND	0.11	0.099	0.081	0.11	77	107	10-174	26	20	R1	
2-Hexanone	mg/kg	ND	0.53	0.49	0.46	0.46	87	93	18-155	0	20		
2-Methylnaphthalene	mg/kg	ND	0.11	0.099	.019J	.013J	18	13	10-122		20		
4-Chlorotoluene	mg/kg	ND	0.11	0.099	0.079	0.087	75	88	12-150	10	20		
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.53	0.49	0.55	0.62	104	125	27-175	11	20		
Acetone	mg/kg	ND	0.53	0.49	0.65	0.81	98	138	18-159	22	20	R1	
Acrolein	mg/kg	ND	2.1	2	1.9	1.8	91	92	10-155	5	20		
Acrylonitrile	mg/kg	ND	0.53	0.49	0.48	0.52	91	105	24-157	7	20		
Benzene	mg/kg	ND	0.11	0.099	0.079	0.089	74	88	48-137	11	20		
Bromobenzene	mg/kg	ND	0.11	0.099	0.059	0.044	56	45	10-136	29	20	R1	
Bromochloromethane	mg/kg	ND	0.11	0.099	0.083	0.080	79	80	48-134	5	20		
Bromodichloromethane	mg/kg	ND	0.11	0.099	0.073	0.070	69	71	32-152	4	20		
Bromoform	mg/kg	ND	0.11	0.099	0.072	0.075	67	75	10-178	4	20		
Bromomethane	mg/kg	ND	0.11	0.099	0.11	0.13	105	133	31-164	17	20		
Carbon disulfide	mg/kg	ND	0.11	0.099	0.085	0.11	73	99	23-145	22	20	R1	
Carbon tetrachloride	mg/kg	ND	0.11	0.099	0.072	0.092	67	93	43-148	25	20	R1	
Chlorobenzene	mg/kg	ND	0.11	0.099	0.068	0.066	64	67	28-136	3	20		
Chloroethane	mg/kg	ND	0.11	0.099	0.10	0.12	95	123	34-160	18	20		
Chloroform	mg/kg	ND	0.11	0.099	0.078	0.085	74	86	54-136	8	20		
Chloromethane	mg/kg	ND	0.11	0.099	0.11	0.13	104	132	36-145	17	20		
cis-1,2-Dichloroethene	mg/kg	ND	0.11	0.099	0.077	0.082	73	83	52-132	6	20		
cis-1,3-Dichloropropene	mg/kg	ND	0.11	0.099	0.075	0.076	71	77	22-163	1	20		
Dibromochloromethane	mg/kg	ND	0.11	0.099	0.070	0.067	66	67	18-161	5	20		
Dibromomethane	mg/kg	ND	0.11	0.099	0.078	0.067	74	67	32-147	16	20		
Dichlorodifluoromethane	mg/kg	ND	0.11	0.099	0.072	0.089	67	90	10-138	22	20	R1	
Ethyl methacrylate	mg/kg	ND	0.11	0.099	.087J	.082J	82	83	10-167		20		
Ethylbenzene	mg/kg	ND	0.11	0.099	0.078	0.10	73	101	24-150	25	20	R1	
Hexachloro-1,3-butadiene	mg/kg	ND	0.11	0.099	0.080	0.14	76	145	10-154	57	20	R1	
Iodomethane	mg/kg	ND	0.11	0.099	.08J	.092J	75	92	23-142		20		
Isopropylbenzene (Cumene)	mg/kg	ND	0.11	0.099	0.077	0.11	72	107	30-144	32	20	R1	
Methyl-tert-butyl ether	mg/kg	ND	0.11	0.099	0.092	0.10	87	102	57-141	9	20		
Methylene Chloride	mg/kg	ND	0.11	0.099	0.074	0.081	70	82	40-140	9	20		
n-Butylbenzene	mg/kg	ND	0.11	0.099	0.087	0.15	82	149	10-156	52	20	R1	
n-Hexane	mg/kg	ND	0.11	0.099	0.068	0.10	63	104	22-150	42	20	R1	
n-Propylbenzene	mg/kg	ND	0.11	0.099	0.091	0.15	86	155	10-181	51	20	R1	
Naphthalene	mg/kg	ND	0.11	0.099	0.022	0.015	21	15	10-132	36	20	R1	
p-Isopropyltoluene	mg/kg	ND	0.11	0.099	0.086	0.15	81	153	10-171	56	20	R1	
sec-Butylbenzene	mg/kg	ND	0.11	0.099	0.091	0.17	86	173	10-178	61	20	R1	
Styrene	mg/kg	ND	0.11	0.099	0.060	0.050	56	50	12-138	18	20		

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3611543 3611544														
Parameter	Units	50372126015		3611543		3611544		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
tert-Butylbenzene	mg/kg	ND	0.11	0.099	0.089	0.17	84	169	10-182	61	20	R1		
Tetrachloroethene	mg/kg	ND	0.11	0.099	0.078	0.12	72	117	26-159	41	20	R1		
Toluene	mg/kg	ND	0.11	0.099	0.078	0.10	72	102	28-150	27	20	R1		
trans-1,2-Dichloroethene	mg/kg	ND	0.11	0.099	0.078	0.094	73	95	50-134	18	20			
trans-1,3-Dichloropropene	mg/kg	ND	0.11	0.099	0.063	0.058	59	59	17-153	8	20			
trans-1,4-Dichloro-2-butene	mg/kg	ND	0.11	0.099	.055J	.04J	51	41	10-146		20			
Trichloroethene	mg/kg	ND	0.11	0.099	0.072	0.082	67	83	33-155	14	20			
Trichlorofluoromethane	mg/kg	ND	0.11	0.099	0.091	0.12	86	117	37-163	24	20	R1		
Vinyl acetate	mg/kg	ND	0.42	0.4	0.46	0.45	108	112	10-183	3	20			
Vinyl chloride	mg/kg	ND	0.11	0.099	0.11	0.13	100	134	37-161	22	20	R1		
Xylene (Total)	mg/kg	ND	0.32	0.3	0.22	0.27	69	91	25-142	20	20	RS		
4-Bromofluorobenzene (S)	%						91	80	63-132					
Dibromofluoromethane (S)	%						106	109	75-135					
Toluene-d8 (S)	%						106	124	65-148					

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch:	328889	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV 5030 Med Level
		Laboratory:	Pace Analytical Services - New Orleans

Associated Lab Samples: 50371968029, 50371968035

METHOD BLANK: 1577063 Matrix: Solid

Associated Lab Samples: 50371968029, 50371968035

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/kg	ND	250	05/15/24 11:56	M5
4-Bromofluorobenzene (S)	%.	100	64-139	05/15/24 11:56	M5
Dibromofluoromethane (S)	%.	97	66-143	05/15/24 11:56	M5
Toluene-d8 (S)	%.	99	75-125	05/15/24 11:56	M5

LABORATORY CONTROL SAMPLE: 1577064

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Bromofluorobenzene (S)	%.			98	64-139	M5
Dibromofluoromethane (S)	%.			98	66-143	M5
Toluene-d8 (S)	%.			101	75-125	M5

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### QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch: 789212

Analysis Method: SM 2540G

QC Batch Method: SM 2540G

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968027

SAMPLE DUPLICATE: 3610716

Parameter	Units	50371897030 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.8	18.2	2	10	N2

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### QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch: 789539

Analysis Method: SM 2540G

QC Batch Method: SM 2540G

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968028, 50371968029, 50371968030, 50371968031

SAMPLE DUPLICATE: 3612737

Parameter	Units	50372595004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.2	10.5	7	10	N2

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### QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373379

QC Batch: 789761

Analysis Method: SM 2540G

QC Batch Method: SM 2540G

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968032, 50371968033, 50371968034, 50371968035

SAMPLE DUPLICATE: 3613553

Parameter	Units	50372114019 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.5	8.2	40	10	N2,R1

SAMPLE DUPLICATE: 3613554

Parameter	Units	50372114020 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.2	15.4	8	10	N2

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### QUALIFIERS

Project: MPL Putnam

Pace Project No.: 50373379

#### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

#### WORKORDER QUALIFIERS

WO: 50373379

[1] REV1 5/21/24 - WO unreported to retrim analyte list on samples 29 and 35. After samples switched to medium level, PM did not retrim list by mistake.

REV2 6/12/24-Samples 29 and 35 not displaying properly. WO unreported to re trim analytes and show correct analysis. This report supersedes and replaces any prior report issued under this work order.

#### BATCH QUALIFIERS

Batch: 328583

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 328928

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

#### ANALYTE QUALIFIERS

1d Neither matrix spike nor matrix precision data could be provided for this analytical batch due to insufficient sample volume.

C0 Result confirmed by second analysis.

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: MPL Putnam

Pace Project No.: 50373379

---

### ANALYTE QUALIFIERS

- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
- N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
- N3 Accreditation is not offered by the relevant laboratory accrediting body for this parameter.
- R1 RPD value was outside control limits.
- RS The RPD value in one of the constituent analytes was outside the control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MPL Putnam

Pace Project No.: 50373379

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50371968027	SS-01-RB	EPA 5035/5030B	328608	EPA 8260	328611
50371968028	SS-01-LB	EPA 5035/5030B	328608	EPA 8260	328611
50371968030	SS-02-LB	EPA 5035/5030B	328608	EPA 8260	328611
50371968031	SS-03-RB	EPA 5035/5030B	328608	EPA 8260	328611
50371968032	SS-03-LB	EPA 5035/5030B	328608	EPA 8260	328611
50371968033	SS-04-RB	EPA 5035/5030B	328608	EPA 8260	328611
50371968034	SS-04-LB	EPA 5035/5030B	328608	EPA 8260	328611
50371968027	SS-01-RB	EPA 5035A-L	347005	EPA 8260D	347061
50371968028	SS-01-LB	EPA 5035A-L	347005	EPA 8260D	347061
50371968030	SS-02-LB	EPA 5035A-L	347005	EPA 8260D	347061
50371968031	SS-03-RB	EPA 5035A-L	347005	EPA 8260D	347061
50371968032	SS-03-LB	EPA 5035A-L	347005	EPA 8260D	347061
50371968033	SS-04-RB	EPA 5035A-L	347005	EPA 8260D	347061
50371968034	SS-04-LB	EPA 5035A-L	347005	EPA 8260D	347061
50371968029	SS-02-RB	EPA 5035A-H/5030C	347062	EPA 8260C	347086
50371968035	DUP-03	EPA 5035A-H/5030C	347062	EPA 8260C	347086
50371968037	Trip Blank (SED)	EPA 8260B	328635		
50371968037	Trip Blank (SED)	EPA 8260C/5030C	346969		
50371968037	Trip Blank (SED)	EPA 5030B/8260	788348		
50371968027	SS-01-RB	EPA 8260	788468		
50371968028	SS-01-LB	EPA 8260	788468		
50371968029	SS-02-RB	EPA 8260	788468		
50371968030	SS-02-LB	EPA 8260	788468		
50371968031	SS-03-RB	EPA 8260	788979		
50371968032	SS-03-LB	EPA 8260	788979		
50371968033	SS-04-RB	EPA 8260	788979		
50371968034	SS-04-LB	EPA 8260	788979		
50371968035	DUP-03	EPA 8260	789352		
50371968029	SS-02-RB	EPA 5035/5030B	328889	EPA 8260	328928
50371968035	DUP-03	EPA 5035/5030B	328889	EPA 8260	328928
50371968027	SS-01-RB	SM 2540G	789212		
50371968028	SS-01-LB	SM 2540G	789539		
50371968029	SS-02-RB	SM 2540G	789539		
50371968030	SS-02-LB	SM 2540G	789539		
50371968031	SS-03-RB	SM 2540G	789539		
50371968032	SS-03-LB	SM 2540G	789761		
50371968033	SS-04-RB	SM 2540G	789761		
50371968034	SS-04-LB	SM 2540G	789761		
50371968035	DUP-03	SM 2540G	789761		

### REPORT OF LABORATORY ANALYSIS

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### CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

# WO#: 50371968



Company Name: Antea Group MI\_Marathon  
Street Address: 40000 Grand River, Novi, MI 48375

Customer Project #: \_\_\_\_\_  
Project Name: MPL Putnam

Site Collection Info/Facility ID (as applicable): \_\_\_\_\_

Contact/Report To: Jason Phillips  
Phone #: (248)699-0244  
E-Mail: jason.phillips@anteagroup.us  
Cc E-Mail: \_\_\_\_\_

Invoice To: Accounts Payable  
Invoice E-Mail: tina.sayer@pacelabs.com

Purchase Order # (if applicable): \_\_\_\_\_  
Quote #: \_\_\_\_\_

County / State origin of sample(s): Indiana

Specify Container Size \*\*

Identify Container Preservative Type\*\*\*

Analysis Requested

\*\*Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

\*\*\* Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Time Zone Collected:  AK  PT  MT  CT  ET

Data Deliverables:

Level II  Level III  Level IV

EQUIS

Other \_\_\_\_\_

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable  Yes  No

Rush (Pre-approval required):  Same Day  1 Day  2 Day  3 Day  Other \_\_\_\_\_

DW PWSID # or WW Permit # as applicable: \_\_\_\_\_

Date Results Requested: \_\_\_\_\_

Field Filtered (if applicable):  Yes  No

Analysis: \_\_\_\_\_

Proj. Mgr: Tina Sayer  
AcctNum / Client ID: \_\_\_\_\_  
Table #: \_\_\_\_\_  
Profile / Template: 11031  
Prelog / Bottle Ord. ID: EZ 3060219  
Sample Comment: \_\_\_\_\_

Lab Use Only

Preservation non-conformance identified for sample.

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start		Collected or Composite End		# Cont.	Res. Chlorine		8260 MSV Low Level	Heptane 8260-Pace NOLA	Nonane 8260-Pace Melville NY										
			Date	Time	Date	Time		Results	Units													
MW-01	GW	6	4/24/24	1540	—	—	3			X												
MW-02	GW	6	4/30/24	0800	—	—	3			X												
MW-03	GW	6	4/30/24	0852	—	—	3			X												
MW-04	GW	6	4/30/24	1105	—	—	3			X												
MW-05	GW	6	4/30/24	1410	—	—	3			X												
MW-06	GW	6	5/10/24	0752	—	—	3			X												
MW-07	GW	6	4/30/24	1520	—	—	3			X												
MW-08	GW	6	4/30/24	1418	—	—	3			X												
MW-09	GW	6	4/30/24	1015	—	—	3			X												
MW-10	GW	6	4/30/24	1122	—	—	3			X												

Additional Instructions from Pace\*:  
**DI terracores have a 48 hour hold time**

Relinquished by/Company: (Signature) *Antea Group*  
Date/Time: 5/1/24 1400

Collected By: (Printed Name) Amanda Straygon  
Signature: *Amanda Straygon*

Relinquished by/Company: (Signature) *Jason Phillips*  
Date/Time: 5/1/24 1400

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers: 3 Thermometer ID: H Correction Factor (°C): 0.0 Obs. Temp. (°C): 1.1 Corrected Temp. (°C): 1.1 On Ice: Y

Tracking Number: \_\_\_\_\_

Delivered by:  In-Person  Courier  
 FedEx  UPS  Other

Page: 1 of 1

**CHAIN-OF-CUSTODY Analytical Request Document**  
 Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here



Scan QR Code for instructions

Company Name: Antea Group MI\_Marathon  
 Street Address: 40000 Grand River, Novi, MI 48375  
 Customer Project #:   
 Project Name: MPL Putnam  
 Site Collection Info/Facility ID (as applicable):

Contact/Report To: Jason Phillips  
 Phone #: (248)699-0244  
 E-Mail: jason.phillips@anteagroup.us  
 Cc E-Mail:  
 Invoice To: Accounts Payable  
 Invoice E-Mail: tina.sayer@pacelabs.com  
 Purchase Order # (if applicable):  
 Quote #:

Specify Container Size \*\*  
 Identify Container Preservative Type\*\*\*  
 Analysis Requested

\*\*Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other  
 \*\*\* Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [  ] ET  
 Data Deliverables:  
 [ ] Level II [ ] Level III [ ] Level IV  
 [ ] EQUIS  
 [ ] Other

County / State origin of sample(s): Indiana  
 Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No  
 Rush (Pre-approval required):  
 [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other \_\_\_\_\_  
 Date Results Requested: \_\_\_\_\_  
 Field Filtered (if applicable): [ ] Yes [ ] No  
 Analysis:

8260 MSV Low Level	Heptane 8260-Pace NOLA	Nonane 8260-Pace Melville NY	Proj. Mgr: <b>Tina Sayer</b>	Preservation non-conformance identified for sample.
			AcctNum / Client ID:	
			Table #:	
			Profile / Template: <b>11031</b>	
			Prelog / Bottle Ord. ID: <b>EZ 3060219</b>	
			Sample Comment	

\* Matrix Codes (Insert in Matrix box below): Drinking Water (GW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start		Collected or Composite End		# Cont.	Res. Chlorine		8260 MSV Low Level	Heptane 8260-Pace NOLA	Nonane 8260-Pace Melville NY							
			Date	Time	Date	Time		Results	Units										
MW-11	GW	6	4/30/24	1250	—	—	3			X									011
MW-12	GW	6	4/30/24	1717	—	—	3			X									012
MW-13	GW	6	5/01/24	0910	—	—	3			X									013
MW-14	GW	6	5/01/24	0858	—	—	3			X									014
MW-15	GW	6	4/30/24	1000	—	—	3			X									015
MW-16	GW	6	5/01/24	0745	—	—	3			X									016
MW-17	GW	6	4/30/24	0910	—	—	3			X									017
MW-18	GW	6	4/30/24	1245	—	—	3			X									018
MW-19	GW	6	4/30/24	1615	—	—	3			X									019
Dup-01	GW	6	—	—	—	—	3			X									020

Additional Instructions from Pace®:  
**DI terracores have a 48 hour hold time**

Collected By: (Printed Name) **Amanda Strayton**  
 Signature: *[Signature]*

Customer Remarks / Special Conditions / Possible Hazards:  
 # Coolers: **3** Thermometer ID: **H** Correction Factor (°C): **0.0** Obs. Temp. (°C): **1.1** Corrected Temp. (°C): **1.1** On Ice: **Y**

Relinquished by/Company: (Signature) *[Signature]*  
 Date/Time: **5/1/24 1400**  
 Relinquished by/Company: (Signature)  
 Date/Time:  
 Relinquished by/Company: (Signature)  
 Date/Time:  
 Relinquished by/Company: (Signature)  
 Date/Time:


Received by/Company: (Signature) *[Signature]*  
 Date/Time:  
 Received by/Company: (Signature)  
 Date/Time:  
 Received by/Company: (Signature)  
 Date/Time:  
 Received by/Company: (Signature)  
 Date/Time:

Date/Time: **5/1/24 1400**  
 Tracking Number:  
 Delivered by: [  ] Person [ ] Courier  
 [ ] FedEx [ ] UPS [ ] Other  
 Page: **1** of **1**



**CHAIN-OF-CUSTODY Analytical Request Document**  
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Scan QR Code for instructions

Company Name: Antea Group MI\_Marathon  
 Street Address: 40000 Grand River, Novi, MI 48375

Customer Project #: \_\_\_\_\_  
 Project Name: MPL Putnam

Site Collection Info/Facility ID (as applicable): \_\_\_\_\_

Contact/Report To: Jason Phillips  
 Phone #: (248)699-0244  
 E-Mail: jason.phillips@anteagroup.us  
 Cc E-Mail: \_\_\_\_\_

Invoice To: Accounts Payable  
 Invoice E-Mail: tina.sayer@pacelabs.com

Purchase Order # (if applicable): \_\_\_\_\_  
 Quote #: \_\_\_\_\_

Specify Container Size \*\*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Identify Container Preservative Type\*\*\*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Analysis Requested

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

\*\*Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

\*\*\* Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) 2n Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Time Zone Collected:  AK  PT  MT  CT  ET

Data Deliverables:  Level III  Level III  Level IV

EQUIS

Other

County / State origin of sample(s): Indiana

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable  Yes  No

Rush (Pre-approval required):  Same Day  1 Day  2 Day  3 Day  Other \_\_\_\_\_

Date Results Requested: \_\_\_\_\_

Field Filtered (if applicable):  Yes  No

Analysis: \_\_\_\_\_

8260 MSV Low Level	Heptane 8260-Pace NOLA	Nonane 8260-Pace Melville NY	Proj. Mgr: <b>Tina Sayer</b>	Lab Use Only	Preservation non-conformance identified for sample.
			AcctNum / Client ID:		
			Table #:		
			Profile / Template: <b>11031</b>		
			Prelog / Bottle Ord. ID: <b>EZ 3060219</b>		
Sample Comment					

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start		Collected or Composite End		# Cont.	Res. Chlorine	
			Date	Time	Date	Time		Results	Units
<del>MW-05-51/24</del> Trpblank	W	-	-	-	-	-			
SW-01	SW	6	5/01/24	0830	-	-	3		
SW-02	SW	6	5/01/24	0855	-	-	3		
SW-03	SW	6	5/01/24	0915	-	-	3		
SW-04	SW	6	5/01/24	0945	-	-	3		
Dup-02	SW	6	-	-	-	-	3		
SS-01-RB	SED	6	5/01/24	1000	-	-			
SS-01-LB	SED	6	5/01/24	1005	-	-			
SS-02-RB	SED	6	5/01/24	1010	-	-			
SS-02-LB	SED	6	5/01/24	1015	-	-			

Customer Remarks / Special Conditions / Possible Hazards:					
# Coolers: <b>3</b>	Thermometer ID: <b>H</b>	Correction Factor (°C): <b>0.0</b>	Obs. Temp. (°C): <b>1.1</b>	Corrected Temp. (°C): <b>1.1</b>	On Ice: <input checked="" type="checkbox"/>

Additional Instructions from Pace\*:  
**DI terracores have a 48 hour hold time**

Collected By: (Printed Name) **Amanda Struyten**  
 Signature: *[Signature]*

Relinquished by/Company: (Signature) *[Signature]*  
 Date/Time: **5/1/24 1400**

Relinquished by/Company: (Signature) \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

Relinquished by/Company: (Signature) \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

Relinquished by/Company: (Signature) \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

Received by/Company: (Signature) *[Signature]*  
 Date/Time: \_\_\_\_\_

Received by/Company: (Signature) \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

Received by/Company: (Signature) \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

Tracking Number: \_\_\_\_\_

Delivered by:  Person  Courier

FedEx  UPS  Other

Page: **1** of **1**

**CHAIN-OF-CUSTODY Analytical Request Document**  
 Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here



Scan QR Code for instructions

Company Name: Antea Group MI\_Marathon  
 Street Address: 40000 Grand River, Novi, MI 48375  
 Customer Project #:   
 Project Name: MPL Putnam  
 Site Collection Info/Facility ID (as applicable):

Contact/Report To: Jason Phillips  
 Phone #: (248)699-0244  
 E-Mail: jason.phillips@anteagroup.us  
 Cc E-Mail:  
 Invoice To: Accounts Payable  
 Invoice E-Mail: tina.sayer@pacelabs.com  
 Purchase Order # (if applicable):  
 Quote #:

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET  
 Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV  
 [ ] EQUIS  
 [ ] Other

County / State origin of sample(s): Indiana  
 Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No  
**Rush (Pre-approval required):**  
 [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other \_\_\_\_\_  
 DW PWSID # or WW Permit # as applicable:  
 Date Results Requested: Field Filtered (if applicable): [ ] Yes [ ] No  
 Analysis:

Specify Container Size \*\*  
 Identify Container Preservative Type\*\*\*  
 Analysis Requested

\*\*Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL Vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other  
 \*\*\* Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start		Collected or Composite End		# Cont.	Res. Chlorine	
			Date	Time	Date	Time		Results	Units
SS-03-RB	SED	6	5/10/24	1020	—	—			X
SS-03-LB	SED	6	5/10/24	1025	—	—			X
SS-04-RB	SED	6	5/10/24	1030	—	—			X
SS-04-LB	SED	6	5/10/24	1035	—	—			X
Dup-03	SED	6	—	—	—	—			X

8260 MSV Low Level	Heptane 8260-Pace NOLA	Nonane 8260-Pace Melville NY
--------------------	------------------------	------------------------------

Proj. Mgr:  
**Tina Sayer**  
 AcctNum / Client ID:  
 Table #:  
 Profile / Template:  
**11031**  
 Prelog / Bottle Ord. ID:  
**EZ 3060219**  
 Sample Comment

Preservation non-conformance identified for sample.

Additional Instructions from Pace\*:  
**DI terracores have a 48 hour hold time**

Collected By:  
 (Printed Name) **Amanda Strayton**  
 Signature: *[Signature]*

Customer Remarks / Special Conditions / Possible Hazards:  
 # Coolers: **3** Thermometer ID: **H** Correction Factor (°C): **0.0** Obs. Temp. (°C): **1.1** Corrected Temp. (°C): **1.1** On Ice: **Y**

Relinquished by/Company: (Signature)  
*Antea Group*  
 Date/Time: **5/11/24 1400**

Relinquished by/Company: (Signature)  
 Date/Time:

Received by/Company: (Signature)  
*[Signature]*  
 Date/Time: **5/11/24 1400**

Received by/Company: (Signature)  
 Date/Time:

Tracking Number:  
 Delivered by: [X] In-Person [ ] Courier  
 [ ] FedEx [ ] UPS [ ] Other  
 Page: **1** of **1**



**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 05/01/24 1410 JF

1. Courier:  FED EX |  UPS |  CLIENT |  PACE |  NOW/JETT |  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes |  No  
 (If yes)Seals Intact:  Yes |  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): 1.1 | 1.1 | 0.8 | 0.8 | 0.6 | 0.6  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap |  Bubble Bags  
 None |  Other \_\_\_\_\_

6. Ice Type:  Wet |  Blue |  None

7. Was the PM notified of out of temp cooler?:  Yes |  No  
 Cooler temp should be above freezing to 6°C

8. EZ Bottle Order?  Yes |  No

If yes but not on COC what is the EZ Bottle Order Number?: EZ 3060219

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			<input checked="" type="checkbox"/>
Short Hold Time Analysis (48 hours or less)? Analysis: <u>DI</u>	<input checked="" type="checkbox"/>		Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>1445</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?	<input checked="" type="checkbox"/>		
Extra labels on Terracore Vials? (soils only)		<input checked="" type="checkbox"/>	Trip Blank Custody Seals?:	<input checked="" type="checkbox"/>		

COMMENTS: UG9H trip blanks sent with terracores - JF 5/1/24. Also, a set of UG9H trip blanks was sent with SW but not recorded on COC - JF 5/1/24

One UG9H from sample point MW-14 was received empty - JF 5/1/24













**Addresses**  
**Order By :**  
 Company Antea Group MI\_Marathon  
 Contact Jason Phillips  
 Email jason.phillips@anteagroup.us  
 Address 40000 Grand River  
 Address 2 Suite 504  
 City Novi  
 State MI Zip 48375  
 Phone (248)699-0244

**Ship To :**  
 Company Hold for Client Pick Up  
 Contact  
 Email  
 Address  
 Address 2  
 City  
 State Zip  
 Phone

**Return To:**  
 Company Indianapolis, IN (Pace Analytical  
 Contact Tina Sayer  
 Email tina.sayer@pacelabs.com  
 Address 7726 Moller Road  
 Address 2  
 City Indianapolis  
 State IN Zip 46268  
 Phone (317)228-3127

**Info**  
 Project Name MPL Putnam Due Date 04/29/2024 Profile 11031 Quote  
 Project Manager Gaines, Amanda Return Date Carrier Client Pick Up Location IN

**Return Shipping Labels**  
 Return Label Type  
 No Shipper  
 With Shipper

**Bottle Labels**  
 Blank  
 Pre-Printed No Sample IDs  
 Pre-Printed With Sample IDs

**Bottles**  
 Boxed Cases  
 Individually Wrapped  
 Grouped By Sample ID/Matrix

**Trip Blanks**  
 Include Trip Blanks

**Misc**  
 Sampling Instructions  
 Custody Seal  
 Temp. Blanks  
 Coolers 2 extra sm  
 Syringes  
 Extra Bubble Wrap  
 Short Hold/Rush Stickers  
 DI Water  
 USDA Regulated Soils  
 Dry Weight

**COC Options**  
 Number of Blanks  
 Pre-Printed 3

# of Samp Matrix	Analysis	Qty / Samp	Container	Total	# of QC	Lot #	Notes
5	WT 8260 MSV Low Level	3	40mL clear VOA vial HCl	15			
5	WT Heptane 8260-Pace NOLA	3	40mL clear VOA vial HCl	15			
5	WT Nonane 8260- Pace Melville NY	3	40mL clear VOA vial HCl	15			
1	WT 8260 MSV Low Level	3	40mL clear vial HCl +DI Water	3			
1	WT Heptane 8260-Pace NOLA	3	40mL clear vial HCl +DI Water	3			
1	WT Nonane 8260- Pace Melville NY	3	40mL clear vial HCl +DI Water	3			

**Hazard Shipping Placard In Place : N/A**

\*Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.  
 Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.  
 Payment term are net 30 days.

Please include the proposal number on the chain of custody to ensure proper billing.

**Sample Notes :**

Please return samples on ice

**LAB USE:**

Ship Date : 04/26/2024

Prepared By: TRH

Verified By: LLA

**CLIENT USE (Optional):**

Date Rec'd:

Received By:



## Appendix D – Surface Water Laboratory Analytical Data



May 16, 2024

Mr. Jason Phillips  
Antea Group  
40000 Grand River  
Suite 504  
Novi, MI 48375

RE: Project: MPL Putnam  
Pace Project No.: 50373387

Dear Mr. Phillips:

Enclosed are the analytical results for sample(s) received by the laboratory on May 01, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Melville
- Pace Analytical Services - New Orleans

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

Sincerely,

Amanda Gaines  
amanda.gaines@pacelabs.com  
(317)228-3100  
Project Manager

Enclosures

cc: AGDataView  
Blake Ford, Antea Group



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: MPL Putnam

Pace Project No.: 50373387

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#### Pace Analytical Services New Orleans

Florida Department of Health (NELAC): E87595

Illinois Environmental Protection Agency: 2000662023-7

Kansas Department of Health and Environment (NELAC): E-10266

Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006

Texas Commission on Env. Quality (NELAC): T104704405-23-18

U.S. Dept. of Agriculture Foreign Soil Import: 525-23-117-89728

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#### Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268

Illinois Accreditation #: 200074

Indiana Drinking Water Laboratory #: C-49-06

Kansas/TNI Certification #: E-10177

Kentucky UST Agency Interest #: 80226

Kentucky WW Laboratory ID #: 98019

Michigan Drinking Water Laboratory #9050

Ohio VAP Certified Laboratory #: CL0065

Oklahoma Laboratory #: 9204

Texas Certification #: T104704355

Washington Dept of Ecology #: C1081

Wisconsin Laboratory #: 999788130

USDA Foreign Soil Permit #: 525-23-13-23119

USDA Compliance Agreement #: IN-SL-22-001

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#### Pace Analytical Services Long Island

575 Broad Hollow Rd, Melville, NY 11747

Connecticut Certification #: PH-0435

Delaware Certification # NY 10478

Maryland Certification #: 208

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

New Jersey Certification #: NY158

New York Certification #: 10478 Primary Accrediting Body

Pennsylvania Certification #: 68-00350

Rhode Island Certification #: LAO00340

Virginia Certification # 460302

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### REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: MPL Putnam

Pace Project No.: 50373387

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373387001	.	Solid	04/29/24 08:00	05/01/24 14:00
50371968022	SW-01	Water	05/01/24 08:30	05/01/24 14:00
50371968023	SW-02	Water	05/01/24 08:55	05/01/24 14:00
50371968024	SW-03	Water	05/01/24 09:15	05/01/24 14:00
50371968025	SW-04	Water	05/01/24 09:45	05/01/24 14:00
50371968026	DUP-02	Water	05/01/24 08:00	05/01/24 14:00
50371968036	Trip Blank (SW)	Water	05/01/24 08:00	05/01/24 14:00

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### SAMPLE ANALYTE COUNT

Project: MPL Putnam

Pace Project No.: 50373387

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50371968022	SW-01	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968023	SW-02	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968024	SW-03	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968025	SW-04	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968026	DUP-02	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I
50371968036	Trip Blank (SW)	EPA 8260B	JRP	4	PASI-N
		EPA 8260C/5030C	TJD	4	PASI-L
		EPA 5030B/8260	DAP	75	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

PASI-L = Pace Analytical Services - Melville

PASI-N = Pace Analytical Services - New Orleans

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: SW-01	Lab ID: 50371968022	Collected: 05/01/24 08:30	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/06/24 19:00	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	100	%	80-120	1		05/06/24 19:00	17060-07-0	
4-Bromofluorobenzene (S)	100	%	80-120	1		05/06/24 19:00	460-00-4	
Toluene-d8 (S)	86	%	80-120	1		05/06/24 19:00	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 20:10	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	99	%	76-124	1		05/13/24 20:10	2037-26-5	
4-Bromofluorobenzene (S)	100	%	78-121	1		05/13/24 20:10	460-00-4	
Dibromofluoromethane (S)	95	%	74-128	1		05/13/24 20:10	1868-53-7	
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 19:04	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 19:04	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 19:04	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 19:04	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 19:04	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 19:04	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 19:04	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 19:04	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 19:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 19:04	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 19:04	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 19:04	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 19:04	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 19:04	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 19:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 19:04	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 19:04	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 19:04	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 19:04	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 19:04	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 19:04	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 19:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 19:04	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 19:04	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:04	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 19:04	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 19:04	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 19:04	75-34-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: SW-01	Lab ID: 50371968022	Collected: 05/01/24 08:30	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 19:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 19:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 19:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 19:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 19:04	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 19:04	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 19:04	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 19:04	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 19:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 19:04	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 19:04	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 19:04	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 19:04	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 19:04	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 19:04	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 19:04	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 19:04	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 19:04	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 19:04	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 19:04	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 19:04	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 19:04	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 19:04	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 19:04	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 19:04	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 19:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 19:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 19:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 19:04	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 19:04	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:04	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 19:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 19:04	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 19:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 19:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 19:04	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 19:04	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 19:04	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 19:04	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 19:04	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 19:04	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	100	%.	79-124	1		05/08/24 19:04	460-00-4	
Dibromofluoromethane (S)	105	%.	82-128	1		05/08/24 19:04	1868-53-7	
Toluene-d8 (S)	101	%.	73-122	1		05/08/24 19:04	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: SW-02	Lab ID: 50371968023	Collected: 05/01/24 08:55	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/06/24 19:20	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	101	%	80-120	1		05/06/24 19:20	17060-07-0	
4-Bromofluorobenzene (S)	100	%	80-120	1		05/06/24 19:20	460-00-4	
Toluene-d8 (S)	86	%	80-120	1		05/06/24 19:20	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 20:29	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	76-124	1		05/13/24 20:29	2037-26-5	
4-Bromofluorobenzene (S)	103	%	78-121	1		05/13/24 20:29	460-00-4	
Dibromofluoromethane (S)	100	%	74-128	1		05/13/24 20:29	1868-53-7	
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 19:32	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 19:32	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 19:32	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 19:32	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 19:32	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 19:32	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 19:32	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 19:32	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 19:32	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 19:32	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 19:32	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 19:32	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 19:32	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 19:32	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 19:32	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 19:32	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 19:32	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 19:32	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 19:32	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 19:32	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 19:32	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 19:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 19:32	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 19:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:32	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 19:32	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 19:32	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 19:32	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: SW-02	Lab ID: 50371968023	Collected: 05/01/24 08:55	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 19:32	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 19:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 19:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 19:32	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 19:32	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 19:32	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 19:32	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 19:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 19:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 19:32	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 19:32	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 19:32	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 19:32	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 19:32	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 19:32	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 19:32	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 19:32	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 19:32	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 19:32	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 19:32	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 19:32	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 19:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 19:32	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 19:32	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 19:32	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 19:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 19:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 19:32	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 19:32	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 19:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 19:32	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 19:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 19:32	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 19:32	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 19:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 19:32	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 19:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 19:32	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 19:32	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 19:32	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 19:32	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	101	%.	79-124	1		05/08/24 19:32	460-00-4	
Dibromofluoromethane (S)	106	%.	82-128	1		05/08/24 19:32	1868-53-7	
Toluene-d8 (S)	99	%.	73-122	1		05/08/24 19:32	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: SW-03	Lab ID: 50371968024	Collected: 05/01/24 09:15	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/06/24 19:39	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	101	%	80-120	1		05/06/24 19:39	17060-07-0	
4-Bromofluorobenzene (S)	100	%	80-120	1		05/06/24 19:39	460-00-4	
Toluene-d8 (S)	88	%	80-120	1		05/06/24 19:39	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 20:48	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	99	%	76-124	1		05/13/24 20:48	2037-26-5	
4-Bromofluorobenzene (S)	106	%	78-121	1		05/13/24 20:48	460-00-4	
Dibromofluoromethane (S)	98	%	74-128	1		05/13/24 20:48	1868-53-7	
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 20:00	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 20:00	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 20:00	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 20:00	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 20:00	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 20:00	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 20:00	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 20:00	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 20:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 20:00	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:00	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:00	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:00	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 20:00	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 20:00	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 20:00	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 20:00	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 20:00	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 20:00	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 20:00	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 20:00	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 20:00	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 20:00	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 20:00	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:00	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 20:00	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 20:00	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 20:00	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: SW-03	Lab ID: 50371968024	Collected: 05/01/24 09:15	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 20:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:00	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:00	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:00	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:00	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:00	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 20:00	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 20:00	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 20:00	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 20:00	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 20:00	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 20:00	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 20:00	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 20:00	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 20:00	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 20:00	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 20:00	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 20:00	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 20:00	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 20:00	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 20:00	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 20:00	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 20:00	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 20:00	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 20:00	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 20:00	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:00	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:00	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 20:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 20:00	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 20:00	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 20:00	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 20:00	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 20:00	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 20:00	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 20:00	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 20:00	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 20:00	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98	%.	79-124	1		05/08/24 20:00	460-00-4	
Dibromofluoromethane (S)	104	%.	82-128	1		05/08/24 20:00	1868-53-7	
Toluene-d8 (S)	98	%.	73-122	1		05/08/24 20:00	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: SW-04	Lab ID: 50371968025	Collected: 05/01/24 09:45	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/06/24 19:59	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	99	%	80-120	1		05/06/24 19:59	17060-07-0	
4-Bromofluorobenzene (S)	100	%	80-120	1		05/06/24 19:59	460-00-4	
Toluene-d8 (S)	88	%	80-120	1		05/06/24 19:59	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 21:07	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	99	%	76-124	1		05/13/24 21:07	2037-26-5	
4-Bromofluorobenzene (S)	101	%	78-121	1		05/13/24 21:07	460-00-4	
Dibromofluoromethane (S)	98	%	74-128	1		05/13/24 21:07	1868-53-7	
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 20:28	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 20:28	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 20:28	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 20:28	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 20:28	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 20:28	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 20:28	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 20:28	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 20:28	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 20:28	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:28	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:28	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:28	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 20:28	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 20:28	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 20:28	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 20:28	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 20:28	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 20:28	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 20:28	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 20:28	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 20:28	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 20:28	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 20:28	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:28	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 20:28	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 20:28	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 20:28	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: SW-04	Lab ID: 50371968025	Collected: 05/01/24 09:45	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 20:28	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:28	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:28	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:28	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:28	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:28	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 20:28	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 20:28	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 20:28	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 20:28	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 20:28	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 20:28	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 20:28	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 20:28	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 20:28	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 20:28	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 20:28	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 20:28	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 20:28	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 20:28	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 20:28	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 20:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 20:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 20:28	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 20:28	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 20:28	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:28	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:28	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 20:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 20:28	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 20:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 20:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 20:28	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 20:28	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 20:28	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 20:28	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 20:28	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 20:28	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98	%.	79-124	1		05/08/24 20:28	460-00-4	
Dibromofluoromethane (S)	104	%.	82-128	1		05/08/24 20:28	1868-53-7	
Toluene-d8 (S)	97	%.	73-122	1		05/08/24 20:28	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: DUP-02	Lab ID: 50371968026	Collected: 05/01/24 08:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/06/24 20:19	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	99	%	80-120	1		05/06/24 20:19	17060-07-0	
4-Bromofluorobenzene (S)	99	%	80-120	1		05/06/24 20:19	460-00-4	
Toluene-d8 (S)	87	%	80-120	1		05/06/24 20:19	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 21:26	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	100	%	76-124	1		05/13/24 21:26	2037-26-5	
4-Bromofluorobenzene (S)	104	%	78-121	1		05/13/24 21:26	460-00-4	
Dibromofluoromethane (S)	99	%	74-128	1		05/13/24 21:26	1868-53-7	
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 20:56	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 20:56	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 20:56	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 20:56	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 20:56	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 20:56	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 20:56	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 20:56	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 20:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 20:56	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:56	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:56	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 20:56	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 20:56	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 20:56	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 20:56	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 20:56	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 20:56	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 20:56	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 20:56	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 20:56	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 20:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 20:56	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 20:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:56	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 20:56	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 20:56	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 20:56	75-34-3	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: DUP-02	Lab ID: 50371968026	Collected: 05/01/24 08:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>	Analytical Method: EPA 5030B/8260							
	Pace Analytical Services - Indianapolis							
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 20:56	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 20:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:56	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:56	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 20:56	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:56	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 20:56	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 20:56	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 20:56	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 20:56	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 20:56	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 20:56	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 20:56	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 20:56	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 20:56	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 20:56	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 20:56	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 20:56	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 20:56	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 20:56	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 20:56	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 20:56	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 20:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 20:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 20:56	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 20:56	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 20:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 20:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 20:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 20:56	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 20:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 20:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 20:56	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 20:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 20:56	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 20:56	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 20:56	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 20:56	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	98	%.	79-124	1		05/08/24 20:56	460-00-4	
Dibromofluoromethane (S)	104	%.	82-128	1		05/08/24 20:56	1868-53-7	
Toluene-d8 (S)	98	%.	73-122	1		05/08/24 20:56	2037-26-5	

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## ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: Trip Blank (SW)	Lab ID: 50371968036	Collected: 05/01/24 08:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C Volatile Organics</b>								
Analytical Method: EPA 8260C/5030C								
Pace Analytical Services - Melville								
n-Nonane	ND	ug/L	4.0	1		05/06/24 18:00	111-84-2	N3
<b>Surrogates</b>								
1,2-Dichloroethane-d4 (S)	102	%	80-120	1		05/06/24 18:00	17060-07-0	
4-Bromofluorobenzene (S)	98	%	80-120	1		05/06/24 18:00	460-00-4	
Toluene-d8 (S)	87	%	80-120	1		05/06/24 18:00	2037-26-5	
<b>8260 MSV</b>								
Analytical Method: EPA 8260B								
Pace Analytical Services - New Orleans								
n-Heptane	ND	ug/L	5.0	1		05/13/24 21:45	142-82-5	
<b>Surrogates</b>								
Toluene-d8 (S)	101	%	76-124	1		05/13/24 21:45	2037-26-5	
4-Bromofluorobenzene (S)	103	%	78-121	1		05/13/24 21:45	460-00-4	
Dibromofluoromethane (S)	100	%	74-128	1		05/13/24 21:45	1868-53-7	
<b>8260 MSV Low Level</b>								
Analytical Method: EPA 5030B/8260								
Pace Analytical Services - Indianapolis								
Acetone	ND	ug/L	20.0	1		05/08/24 15:48	67-64-1	
Acrolein	ND	ug/L	20.0	1		05/08/24 15:48	107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/08/24 15:48	107-13-1	
Benzene	ND	ug/L	1.0	1		05/08/24 15:48	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/08/24 15:48	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/08/24 15:48	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/08/24 15:48	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/08/24 15:48	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/08/24 15:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	20.0	1		05/08/24 15:48	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		05/08/24 15:48	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/08/24 15:48	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/08/24 15:48	98-06-6	
Carbon disulfide	ND	ug/L	5.0	1		05/08/24 15:48	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		05/08/24 15:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/08/24 15:48	108-90-7	
Chloroethane	ND	ug/L	2.0	1		05/08/24 15:48	75-00-3	
Chloroform	ND	ug/L	1.0	1		05/08/24 15:48	67-66-3	
Chloromethane	ND	ug/L	2.0	1		05/08/24 15:48	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 15:48	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/08/24 15:48	106-43-4	
Dibromochloromethane	ND	ug/L	1.0	1		05/08/24 15:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/08/24 15:48	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/08/24 15:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 15:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 15:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/08/24 15:48	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/08/24 15:48	110-57-6	
Dichlorodifluoromethane	ND	ug/L	2.0	1		05/08/24 15:48	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/08/24 15:48	75-34-3	

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### ANALYTICAL RESULTS

Project: MPL Putnam

Pace Project No.: 50373387

Sample: Trip Blank (SW)	Lab ID: 50371968036	Collected: 05/01/24 08:00	Received: 05/01/24 14:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Low Level</b>		Analytical Method: EPA 5030B/8260						
		Pace Analytical Services - Indianapolis						
1,2-Dichloroethane	ND	ug/L	1.0	1		05/08/24 15:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/08/24 15:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 15:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/08/24 15:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 15:48	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/08/24 15:48	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/08/24 15:48	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/08/24 15:48	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 15:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/08/24 15:48	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		05/08/24 15:48	100-41-4	
Ethyl methacrylate	ND	ug/L	20.0	1		05/08/24 15:48	97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/08/24 15:48	87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/08/24 15:48	110-54-3	
2-Hexanone	ND	ug/L	20.0	1		05/08/24 15:48	591-78-6	
Iodomethane	ND	ug/L	5.0	1		05/08/24 15:48	74-88-4	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/08/24 15:48	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/08/24 15:48	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/08/24 15:48	75-09-2	
1-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 15:48	90-12-0	
2-Methylnaphthalene	ND	ug/L	20.0	1		05/08/24 15:48	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	20.0	1		05/08/24 15:48	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/08/24 15:48	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/08/24 15:48	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/08/24 15:48	103-65-1	
Styrene	ND	ug/L	1.0	1		05/08/24 15:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 15:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/08/24 15:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/08/24 15:48	127-18-4	
Toluene	ND	ug/L	1.0	1		05/08/24 15:48	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 15:48	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/08/24 15:48	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/08/24 15:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/08/24 15:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/08/24 15:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	1		05/08/24 15:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/08/24 15:48	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 15:48	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/08/24 15:48	108-67-8	
Vinyl acetate	ND	ug/L	20.0	1		05/08/24 15:48	108-05-4	L1
Vinyl chloride	ND	ug/L	1.0	1		05/08/24 15:48	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/08/24 15:48	1330-20-7	
<b>Surrogates</b>								
4-Bromofluorobenzene (S)	97	%.	79-124	1		05/08/24 15:48	460-00-4	
Dibromofluoromethane (S)	104	%.	82-128	1		05/08/24 15:48	1868-53-7	
Toluene-d8 (S)	98	%.	73-122	1		05/08/24 15:48	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373387

QC Batch: 328635

Analysis Method: EPA 8260B

QC Batch Method: EPA 8260B

Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - New Orleans

Associated Lab Samples: 50371968022, 50371968023, 50371968024, 50371968025, 50371968026, 50371968036

METHOD BLANK: 1575881

Matrix: Water

Associated Lab Samples: 50371968022, 50371968023, 50371968024, 50371968025, 50371968026, 50371968036

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/L	ND	5.0	05/13/24 19:13	
4-Bromofluorobenzene (S)	%.	97	78-121	05/13/24 19:13	
Dibromofluoromethane (S)	%.	106	74-128	05/13/24 19:13	
Toluene-d8 (S)	%.	98	76-124	05/13/24 19:13	

LABORATORY CONTROL SAMPLE: 1575882

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Bromofluorobenzene (S)	%.			93	78-121	
Dibromofluoromethane (S)	%.			102	74-128	
Toluene-d8 (S)	%.			100	76-124	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373387

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QC Batch:	346969	Analysis Method:	EPA 8260C/5030C
QC Batch Method:	EPA 8260C/5030C	Analysis Description:	8260 MSV
		Laboratory:	Pace Analytical Services - Melville

Associated Lab Samples: 50371968022, 50371968023, 50371968024, 50371968025, 50371968026, 50371968036

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METHOD BLANK: 1792807 Matrix: Water

Associated Lab Samples: 50371968022, 50371968023, 50371968024, 50371968025, 50371968026, 50371968036

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Nonane	ug/L	ND	4.0	05/06/24 15:55	N3
1,2-Dichloroethane-d4 (S)	%	99	80-120	05/06/24 15:55	
4-Bromofluorobenzene (S)	%	98	80-120	05/06/24 15:55	
Toluene-d8 (S)	%	84	80-120	05/06/24 15:55	

---

LABORATORY CONTROL SAMPLE: 1792808

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Nonane	ug/L	50	50.3	101	24-143	N3
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			103	80-120	
Toluene-d8 (S)	%			85	80-120	

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### QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373387

QC Batch: 788348

Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260

Analysis Description: 8260 MSV Low Level

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50371968022, 50371968023, 50371968024, 50371968025, 50371968026, 50371968036

METHOD BLANK: 3606427

Matrix: Water

Associated Lab Samples: 50371968022, 50371968023, 50371968024, 50371968025, 50371968026, 50371968036

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1-Dichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,1-Dichloroethene	ug/L	ND	1.0	05/08/24 11:35	
1,1-Dichloropropene	ug/L	ND	1.0	05/08/24 11:35	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,2,3-Trichloropropane	ug/L	ND	1.0	05/08/24 11:35	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	05/08/24 11:35	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/08/24 11:35	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,2-Dichloroethane	ug/L	ND	1.0	05/08/24 11:35	
1,2-Dichloropropane	ug/L	ND	1.0	05/08/24 11:35	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	05/08/24 11:35	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1,3-Dichloropropane	ug/L	ND	1.0	05/08/24 11:35	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
1-Methylnaphthalene	ug/L	ND	20.0	05/08/24 11:35	
2,2-Dichloropropane	ug/L	ND	1.0	05/08/24 11:35	
2-Butanone (MEK)	ug/L	ND	20.0	05/08/24 11:35	
2-Chlorotoluene	ug/L	ND	1.0	05/08/24 11:35	
2-Hexanone	ug/L	ND	20.0	05/08/24 11:35	
2-Methylnaphthalene	ug/L	ND	20.0	05/08/24 11:35	
4-Chlorotoluene	ug/L	ND	1.0	05/08/24 11:35	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20.0	05/08/24 11:35	
Acetone	ug/L	ND	20.0	05/08/24 11:35	
Acrolein	ug/L	ND	20.0	05/08/24 11:35	
Acrylonitrile	ug/L	ND	100	05/08/24 11:35	
Benzene	ug/L	ND	1.0	05/08/24 11:35	
Bromobenzene	ug/L	ND	1.0	05/08/24 11:35	
Bromochloromethane	ug/L	ND	1.0	05/08/24 11:35	
Bromodichloromethane	ug/L	ND	1.0	05/08/24 11:35	
Bromoform	ug/L	ND	1.0	05/08/24 11:35	
Bromomethane	ug/L	ND	5.0	05/08/24 11:35	
Carbon disulfide	ug/L	ND	5.0	05/08/24 11:35	
Carbon tetrachloride	ug/L	ND	1.0	05/08/24 11:35	
Chlorobenzene	ug/L	ND	1.0	05/08/24 11:35	
Chloroethane	ug/L	ND	2.0	05/08/24 11:35	

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**QUALITY CONTROL DATA**

Project: MPL Putnam

Pace Project No.: 50373387

METHOD BLANK: 3606427

Matrix: Water

Associated Lab Samples: 50371968022, 50371968023, 50371968024, 50371968025, 50371968026, 50371968036

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloroform	ug/L	ND	1.0	05/08/24 11:35	
Chloromethane	ug/L	ND	2.0	05/08/24 11:35	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/08/24 11:35	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/08/24 11:35	
Dibromochloromethane	ug/L	ND	1.0	05/08/24 11:35	
Dibromomethane	ug/L	ND	1.0	05/08/24 11:35	
Dichlorodifluoromethane	ug/L	ND	2.0	05/08/24 11:35	
Ethyl methacrylate	ug/L	ND	20.0	05/08/24 11:35	
Ethylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/08/24 11:35	
Iodomethane	ug/L	ND	5.0	05/08/24 11:35	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	05/08/24 11:35	
Methyl-tert-butyl ether	ug/L	ND	4.0	05/08/24 11:35	
Methylene Chloride	ug/L	ND	5.0	05/08/24 11:35	
n-Butylbenzene	ug/L	ND	1.0	05/08/24 11:35	
n-Hexane	ug/L	ND	5.0	05/08/24 11:35	
n-Propylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Naphthalene	ug/L	ND	1.0	05/08/24 11:35	
p-Isopropyltoluene	ug/L	ND	1.0	05/08/24 11:35	
sec-Butylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Styrene	ug/L	ND	1.0	05/08/24 11:35	
tert-Butylbenzene	ug/L	ND	1.0	05/08/24 11:35	
Tetrachloroethene	ug/L	ND	1.0	05/08/24 11:35	
Toluene	ug/L	ND	1.0	05/08/24 11:35	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/08/24 11:35	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/08/24 11:35	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	05/08/24 11:35	
Trichloroethene	ug/L	ND	1.0	05/08/24 11:35	
Trichlorofluoromethane	ug/L	ND	2.0	05/08/24 11:35	
Vinyl acetate	ug/L	ND	20.0	05/08/24 11:35	
Vinyl chloride	ug/L	ND	1.0	05/08/24 11:35	
Xylene (Total)	ug/L	ND	3.0	05/08/24 11:35	
4-Bromofluorobenzene (S)	%	96	79-124	05/08/24 11:35	1d
Dibromofluoromethane (S)	%	98	82-128	05/08/24 11:35	
Toluene-d8 (S)	%	98	73-122	05/08/24 11:35	

LABORATORY CONTROL SAMPLE: 3606428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.6	107	81-130	
1,1,1-Trichloroethane	ug/L	50	51.0	102	71-126	
1,1,2,2-Tetrachloroethane	ug/L	50	48.5	97	70-126	
1,1,2-Trichloroethane	ug/L	50	54.6	109	79-125	
1,1-Dichloroethane	ug/L	50	50.9	102	79-120	

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## QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373387

LABORATORY CONTROL SAMPLE: 3606428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	50	53.4	107	71-130	
1,1-Dichloropropene	ug/L	50	56.6	113	78-144	
1,2,3-Trichlorobenzene	ug/L	50	49.3	99	57-146	
1,2,3-Trichloropropane	ug/L	50	54.0	108	74-127	
1,2,4-Trichlorobenzene	ug/L	50	52.8	106	62-136	
1,2,4-Trimethylbenzene	ug/L	50	52.1	104	69-120	
1,2-Dibromoethane (EDB)	ug/L	50	52.1	104	80-120	
1,2-Dichlorobenzene	ug/L	50	50.1	100	79-123	
1,2-Dichloroethane	ug/L	50	47.4	95	72-123	
1,2-Dichloropropane	ug/L	50	49.4	99	76-125	
1,3,5-Trimethylbenzene	ug/L	50	52.2	104	71-120	
1,3-Dichlorobenzene	ug/L	50	52.2	104	78-117	
1,3-Dichloropropane	ug/L	50	52.1	104	77-126	
1,4-Dichlorobenzene	ug/L	50	52.1	104	79-116	
1-Methylnaphthalene	ug/L	50	58.6	117	50-190	
2,2-Dichloropropane	ug/L	50	55.8	112	48-138	
2-Butanone (MEK)	ug/L	250	263	105	67-135	
2-Chlorotoluene	ug/L	50	50.3	101	75-122	
2-Hexanone	ug/L	250	263	105	65-135	
2-Methylnaphthalene	ug/L	50	57.6	115	55-184	
4-Chlorotoluene	ug/L	50	51.1	102	77-120	
4-Methyl-2-pentanone (MIBK)	ug/L	250	265	106	69-136	
Acetone	ug/L	250	230	92	34-156	
Acrolein	ug/L	1000	903	90	59-191	
Acrylonitrile	ug/L	250	255	102	67-146	
Benzene	ug/L	50	52.0	104	76-122	
Bromobenzene	ug/L	50	46.7	93	75-121	
Bromochloromethane	ug/L	50	52.2	104	73-119	
Bromodichloromethane	ug/L	50	52.9	106	80-126	
Bromoform	ug/L	50	51.9	104	77-124	
Bromomethane	ug/L	50	38.8	78	10-175	
Carbon disulfide	ug/L	50	50.0	100	69-121	
Carbon tetrachloride	ug/L	50	51.7	103	73-127	
Chlorobenzene	ug/L	50	51.9	104	76-118	
Chloroethane	ug/L	50	55.7	111	36-162	
Chloroform	ug/L	50	50.7	101	78-121	
Chloromethane	ug/L	50	52.7	105	37-143	
cis-1,2-Dichloroethene	ug/L	50	54.1	108	77-123	
cis-1,3-Dichloropropene	ug/L	50	55.5	111	76-132	
Dibromochloromethane	ug/L	50	53.0	106	79-130	
Dibromomethane	ug/L	50	50.5	101	79-124	
Dichlorodifluoromethane	ug/L	50	44.4	89	29-126	
Ethyl methacrylate	ug/L	50	56.8	114	78-137	
Ethylbenzene	ug/L	50	54.4	109	76-120	
Hexachloro-1,3-butadiene	ug/L	50	51.4	103	60-131	
Iodomethane	ug/L	50	66.9	134	10-148	
Isopropylbenzene (Cumene)	ug/L	50	53.6	107	71-124	

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### QUALITY CONTROL DATA

Project: MPL Putnam

Pace Project No.: 50373387

LABORATORY CONTROL SAMPLE: 3606428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methyl-tert-butyl ether	ug/L	50	50.0	100	71-121	
Methylene Chloride	ug/L	50	44.3	89	71-121	
n-Butylbenzene	ug/L	50	52.4	105	68-131	
n-Hexane	ug/L	50	55.0	110	51-126	
n-Propylbenzene	ug/L	50	51.8	104	67-127	
Naphthalene	ug/L	50	51.3	103	62-143	
p-Isopropyltoluene	ug/L	50	53.1	106	72-124	
sec-Butylbenzene	ug/L	50	53.1	106	71-126	
Styrene	ug/L	50	54.4	109	80-121	
tert-Butylbenzene	ug/L	50	57.8	116	71-128	
Tetrachloroethene	ug/L	50	54.3	109	71-122	
Toluene	ug/L	50	51.6	103	74-118	
trans-1,2-Dichloroethene	ug/L	50	53.4	107	75-122	
trans-1,3-Dichloropropene	ug/L	50	55.3	111	77-126	
trans-1,4-Dichloro-2-butene	ug/L	50	49.9J	100	53-136	
Trichloroethene	ug/L	50	50.6	101	74-125	
Trichlorofluoromethane	ug/L	50	50.2	100	64-138	
Vinyl acetate	ug/L	200	314	157	74-154	L1
Vinyl chloride	ug/L	50	53.4	107	55-139	
Xylene (Total)	ug/L	150	157	105	73-119	
4-Bromofluorobenzene (S)	%			98	79-124	
Dibromofluoromethane (S)	%			99	82-128	
Toluene-d8 (S)	%			101	73-122	

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## QUALIFIERS

Project: MPL Putnam

Pace Project No.: 50373387

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

### BATCH QUALIFIERS

Batch: 328583

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 328928

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

1d Neither matrix spike nor matrix precision data could be provided for this analytical batch due to insufficient sample volume.

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

N3 Accreditation is not offered by the relevant laboratory accrediting body for this parameter.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MPL Putnam

Pace Project No.: 50373387

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50371968022	SW-01	EPA 8260B	328635		
50371968023	SW-02	EPA 8260B	328635		
50371968024	SW-03	EPA 8260B	328635		
50371968025	SW-04	EPA 8260B	328635		
50371968026	DUP-02	EPA 8260B	328635		
50371968036	Trip Blank (SW)	EPA 8260B	328635		
50371968022	SW-01	EPA 8260C/5030C	346969		
50371968023	SW-02	EPA 8260C/5030C	346969		
50371968024	SW-03	EPA 8260C/5030C	346969		
50371968025	SW-04	EPA 8260C/5030C	346969		
50371968026	DUP-02	EPA 8260C/5030C	346969		
50371968036	Trip Blank (SW)	EPA 8260C/5030C	346969		
50371968022	SW-01	EPA 5030B/8260	788348		
50371968023	SW-02	EPA 5030B/8260	788348		
50371968024	SW-03	EPA 5030B/8260	788348		
50371968025	SW-04	EPA 5030B/8260	788348		
50371968026	DUP-02	EPA 5030B/8260	788348		
50371968036	Trip Blank (SW)	EPA 5030B/8260	788348		

### REPORT OF LABORATORY ANALYSIS

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**CHAIN-OF-CUSTODY Analytical Request Document**  
 Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here



Scan QR Code for instructions

Company Name: Antea Group MI\_Marathon  
 Street Address: 40000 Grand River, Novi, MI 48375  
 Customer Project #:   
 Project Name: MPL Putnam  
 Site Collection Info/Facility ID (as applicable):

Contact/Report To: Jason Phillips  
 Phone #: (248)699-0244  
 E-Mail: jason.phillips@anteagroup.us  
 Cc E-Mail:  
 Invoice To: Accounts Payable  
 Invoice E-Mail: tina.sayer@pacelabs.com  
 Purchase Order # (if applicable):  
 Quote #:

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET  
 Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV  
 [ ] EQUIS  
 [ ] Other

County / State origin of sample(s): Indiana  
 Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No  
**Rush (Pre-approval required):**  
 [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other \_\_\_\_\_  
 DW PWSID # or WW Permit # as applicable:  
 Date Results Requested: \_\_\_\_\_  
 Field Filtered (if applicable): [ ] Yes [ ] No  
 Analysis:

Specify Container Size \*\*  
 Identify Container Preservative Type\*\*\*  
 Analysis Requested

\*\*Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other  
 \*\*\* Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start		Collected or Composite End		# Cont.	Res. Chlorine	
			Date	Time	Date	Time		Results	Units
SS-03-RB	SED	6	5/10/24	1020	—	—			X
SS-03-LB	SED	6	5/10/24	1025	—	—			X
SS-04-RB	SED	6	5/10/24	1030	—	—			X
SS-04-LB	SED	6	5/10/24	1035	—	—			X
Dup-03	SED	6	—	—	—	—			X

8260 MSV Low Level	Heptane 8260-Pace NOLA	Nonane 8260-Pace Melville NY
--------------------	------------------------	------------------------------

Proj. Mgr:  
**Tina Sayer**  
 AcctNum / Client ID:  
 Table #:  
 Profile / Template:  
**11031**  
 Prelog / Bottle Ord. ID:  
**EZ 3060219**  
 Sample Comment

Preservation non-conformance identified for sample.

Additional Instructions from Pace\*:  
**DI terracores have a 48 hour hold time**

Collected By:  
 (Printed Name) **Amanda Strayton**  
 Signature: *[Signature]*

Customer Remarks / Special Conditions / Possible Hazards:  
 # Coolers: **3** Thermometer ID: **H** Correction Factor (°C): **0.0** Obs. Temp. (°C): **1.1** Corrected Temp. (°C): **1.1** On Ice: **Y**

Relinquished by/Company: (Signature)  
*Antea Group*  
 Date/Time: **5/11/24 1400**

Relinquished by/Company: (Signature)  
 Date/Time:

Received by/Company: (Signature)  
*[Signature]*  
 Date/Time: **5/11/24 1400**

Received by/Company: (Signature)  
 Date/Time:

Tracking Number:  
 Delivered by: [X] In-Person [ ] Courier  
 [ ] FedEx [ ] UPS [ ] Other  
 Page: **1** of **1**



**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: 05/01/24 1410 JF

1. Courier:  FED EX |  UPS |  CLIENT |  PACE |  NOW/JETT |  OTHER \_\_\_\_\_

2. Custody Seal on Cooler/Box Present:  Yes |  No  
 (If yes)Seals Intact:  Yes |  No (leave blank if no seals were present)

3. Thermometer: 1 2 3 4 5 6 7 8 A B C D E F G H

4. Cooler Temperature(s): 1.1 | 1.1 | 0.8 | 0.8 | 0.6 | 0.6 \_\_\_\_\_  
 (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. Packing Material:  Bubble Wrap |  Bubble Bags  
 None |  Other \_\_\_\_\_

6. Ice Type:  Wet |  Blue |  None

7. Was the PM notified of out of temp cooler?:  Yes |  No  
 Cooler temp should be above freezing to 6°C

8. EZ Bottle Order?  Yes |  No

If yes but not on COC what is the EZ Bottle Order Number?: EZ 3060219

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>	All containers needing acid/base preservation have been pH CHECKED?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.			<input checked="" type="checkbox"/>
Short Hold Time Analysis (48 hours or less)? Analysis: <u>DI</u>	<input checked="" type="checkbox"/>		Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab Time: <u>1445</u>			Residual Chlorine Check (SVOC 625 Pest/PCB 608)	<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (Total/Amenable/Free Cyanide)			<input checked="" type="checkbox"/>
Custody Signatures Present?	<input checked="" type="checkbox"/>		Headspace Wisconsin Sulfide?			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Headspace in VOA Vials (>6mm): See Container Count form for details	<u>Present</u>	<u>Absent</u>	<u>No VOA Vials Sent</u>
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	<input checked="" type="checkbox"/>		Trip Blank Present?	<input checked="" type="checkbox"/>		
Extra labels on Terracore Vials? (soils only)		<input checked="" type="checkbox"/>	Trip Blank Custody Seals?:	<input checked="" type="checkbox"/>		

COMMENTS: UG9H trip blanks sent with terracores - JF 5/1/24. Also, a set of UG9H trip blanks was sent with SW but not recorded on COC - JF 5/1/24

One UG9H from sample point MW-14 was received empty - JF 5/1/24



Sample Container Count

\*\* Place a RED dot on containers that are out of conformance \*\*

COC Line Item	WGFLU	WGKLU	BG1U	R	DG9H VOA VIAL HS >6mm	VG9U	DG9U	VG9T	AMBER GLASS							PLASTIC							OTHER			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc Black					
									AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	CG3H	CG3F	Syringe Kit								
1					3																														
2																																			
3																																			
4					2																														
5					3																														
6																																			
7																																			
8																																			
9																																			
10																																			
11																																			
12																																			

Container Codes

Glass			
DG9H	40mL HCl amber vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCl clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKL	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFLU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFLU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCl	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCl clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

Plastic			
BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic
BP1U	1L unpreserved plastic	<b>Miscellaneous</b>	
BP1Z	1L NaOH, Zn, Ac		
BP2N	500mL HNO3 plastic	Syringe Kit	LL Cr+6 sampling kit
BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag
BP2S	500mL H2SO4 plastic	R	Terracore Kit
BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate
BP2Z	500mL NaOH, Zn Ac	GN	General Container
BP3B	250mL NaOH plastic	U	Summa Can (air sample)
BP3N	250mL HNO3 plastic	WT	Water
BP3F	250mL HNO3 plastic-field filtered	SL	Solid
BP3U	250mL unpreserved plastic	OL	Oil
BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid
BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe
BP3R	250mL Unpres. FF SO4/OH buffer		









**Addresses**  
**Order By :**  
 Company Antea Group MI\_Marathon  
 Contact Jason Phillips  
 Email jason.phillips@anteagroup.us  
 Address 40000 Grand River  
 Address 2 Suite 504  
 City Novi  
 State MI Zip 48375  
 Phone (248)699-0244

**Ship To :**  
 Company Hold for Client Pick Up  
 Contact  
 Email  
 Address  
 Address 2  
 City  
 State Zip  
 Phone

**Return To:**  
 Company Indianapolis, IN (Pace Analytical  
 Contact Tina Sayer  
 Email tina.sayer@pacelabs.com  
 Address 7726 Moller Road  
 Address 2  
 City Indianapolis  
 State IN Zip 46268  
 Phone (317)228-3127

**Info**  
 Project Name MPL Putnam Due Date 04/29/2024 Profile 11031 Quote  
 Project Manager Gaines, Amanda Return Date Carrier Client Pick Up Location IN

**Return Shipping Labels**  
 Return Label Type  
 No Shipper  
 With Shipper

**Bottle Labels**  
 Blank  
 Pre-Printed No Sample IDs  
 Pre-Printed With Sample IDs

**Bottles**  
 Boxed Cases  
 Individually Wrapped  
 Grouped By Sample ID/Matrix

**Trip Blanks**  
 Include Trip Blanks

**Misc**  
 Sampling Instructions  
 Custody Seal  
 Temp. Blanks  
 Coolers 2 extra sm  
 Syringes  
 Extra Bubble Wrap  
 Short Hold/Rush Stickers  
 DI Water  
 USDA Regulated Soils  
 Dry Weight

**COC Options**  
 Number of Blanks  
 Pre-Printed 3

# of Samp Matrix	Analysis	Qty / Samp	Container	Total	# of QC	Lot #	Notes
5	WT 8260 MSV Low Level	3	40mL clear VOA vial HCl	15			
5	WT Heptane 8260-Pace NOLA	3	40mL clear VOA vial HCl	15			
5	WT Nonane 8260- Pace Melville NY	3	40mL clear VOA vial HCl	15			
1	WT 8260 MSV Low Level	3	40mL clear vial HCl +DI Water	3			
1	WT Heptane 8260-Pace NOLA	3	40mL clear vial HCl +DI Water	3			
1	WT Nonane 8260- Pace Melville NY	3	40mL clear vial HCl +DI Water	3			

**Hazard Shipping Placard In Place : N/A**

\*Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.  
 Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.  
 Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.  
 Payment term are net 30 days.  
 Please include the proposal number on the chain of custody to ensure proper billing.

**LAB USE:**  
 Ship Date : 04/26/2024  
 Prepared By: TRH  
 Verified By: LLA

**CLIENT USE (Optional):**  
 Date Rec'd:  
 Received By:

**Sample Notes :**  
 Please return samples on ice