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June 27, 2024

Subject: Initial Site Characterization (ISC)  
City of Jasper Wastewater Treatment Plant  
110 Hwy 231  
Jasper, Indiana 47457  
Facility #19176  
Incident #2023-04512

Mr. Fix,

Hinderliter Environmental Services (HES), on behalf of City of Jasper, is providing the Indiana Department of Environmental Management (IDEM) with an Initial Site Characterization (ISC) Report for the above-referenced facility. If you have additional questions or comments concerning this submittal, feel free to contact us.

Sincerely,  
Hinderliter Environmental Services

A handwritten signature in blue ink, appearing to read 'Jarrod K. Richeson', is written over a light blue circular stamp.

Jarrod K. Richeson  
Senior Project Manager

# INITIAL SITE CHARACTERIZATION REPORT



**CITY OF JASPER WASTEWATER TREATMENT PLANT  
110 HWY 231  
JASPER, INDIANA 47457  
DUBOIS COUNTY  
FACILITY #19176  
INCIDENT #2023-04512**

**PREPARED FOR:**

**CITY OF JASPER  
P.O. BOX 29  
JASPER, INDIANA 47547**

**SUBMITTED TO:  
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
PETROLEUM REMEDIATION SECTION  
PETROLEUM BRANCH  
OFFICE OF LAND QUALITY**

**COMPLETED BY:**



***JUNE 27, 2024***

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## EXECUTIVE SUMMARY

Hinderliter Environmental Services (HES) is conducting environmental assessment and investigation activities at the City of Jasper Wastewater Treatment Plant (WWTP). This work is being conducted and this report is being submitted on behalf of the City of Jasper Indiana, 610 Main Street, P.O. Box 29, Jasper, Indiana.

On April 9, 2024, three fiberglass USTs were permanently closed by removal at the facility (FID 19176). All tanks were opened following purging and cleaned on site. UST closure samples were collected from areas specified by the IDEM UST Guidance Manual. Numerous soil samples submitted resulted in low level detections above laboratory detection limits for various COCs. All soil sample analysis indicated VOCs, PAHs and Lead to be below IDEM R2 Commercial soil published limit (R2 CSPL).

A groundwater sample was collected from the down gradient tank pit monitoring well. The groundwater sample analysis indicated that Benzene, Naphthalene, and Total Lead exceeded IDEM R2 groundwater published limit (R2 GWPL). All other VOCs, PAHs and Dissolved Lead were below the R2 GWPLs. Based on the groundwater detections, an incident was reported to IDEM on April 22, 2024, and Incident Number 202404512 was issued on April 23, 2024. IDEM requested an Initial Site Investigation (ISC) in a letter dated April 23, 2024 (**Appendix A**).

### 1.0 BACKGROUND INFORMATION

#### 1.1 Owner/Operator

The facility is owned and operated by the City of Jasper and is a wastewater treatment plant that has been in operation for at least 30 years.

#### 1.2 Regional Location

The site is located on the Jasper, Indiana 7.5-minute series USGS Quadrangle Map within Township 1 South, Range 5 West, in the southwest quarter of Section 35. The site is located within Bainbridge Township, Dubois County, Indiana. The latitude and longitude coordinates in decimal degrees are 38.386 and -86.939, respectively.

The site elevation is approximately 460 feet above mean sea level (msl). The surrounding is mostly level gradually sloping towards the Patoka River. The Patoka Riverbank elevation is approximately 450 msl.

A topographic map illustrating the location of the subject site is provided as **Figure 1 – Topographical Map**. The surrounding areas and properties are provided as **Figure 2 – Site Vicinity Map**. The UST system location is included on **Figure 2 – Site Vicinity Map**.

## 1.2 Site Location

The facility is the City of Jasper Wastewater Treatment Plant (WWTP) located south of the City of Jasper along US Route 231. The site is surrounded by commercial, industrial and City of Jasper properties. No residential properties are located in the vicinity.

Numerous utilities are located in the vicinity of the release area. Monitoring wells were positioned to avoid sensitive utilities. Site utilities are included on **Figure 3 - Site Map**.

## 1.3 Site UST History

Tank #	Installation Dates	Capacity (gallons)	Product	Construction Material	Tank Status	Method of Leak Detection	Date Removed
1	2-01-90	2,000	Diesel	Fiberglass	Removed	ATG	April 9, 2024
2	2-01-90	1,000	Diesel	Fiberglass	Removed	ATG	April 9, 2024
3	2-01-90	1,000	Gasoline	Fiberglass	Removed	ATG	April 9, 2024

Selected UST documents are included in **Appendix B**.

## 1.4 Previous Spill History

There is no previous spill history.

## 2.0 RELEASE INCIDENT DESCRIPTION

A groundwater sample was collected from the down gradient tank pit monitoring well. The groundwater sample analysis indicated that Benzene, Naphthalene, and Total Lead exceeded IDEM R2 groundwater published limit (R2 GWPL). All other VOCs, PAHs and Dissolved Lead were below the R2 GWPLs.

## 3.0 INITIAL RESPONSE TO RELEASE

No initial response to release was necessary

## 4.0 FREE PRODUCT RECOVERY INFORMATION

No free product was encountered during UST removal or subsequent ISC investigation.

## 5.0 REGIONAL INVESTIGATIONS

### 5.1 Bedrock Geology

The Bedrock Geologic Map of Indiana (Gray et. al., 1987) indicates bedrock below the site is the Raccoon Creek Group of the Pennsylvanian Age. The Raccoon Group consists primarily of interbedded shales and sandstone with minor amounts of siltstone, limestone, clay, and coal. The depth to bedrock in the vicinity of the site is estimated at more than 75 feet below ground surface.

## 5.2 Surficial Geology

The Quaternary Geologic Map of Indiana (Gray, 1989) indicates that the site is located in the following:

Holocene Age alluvium consisting of silt, sand, and gravel deposits of and along present streams, including some colluvium along valley margins. The Patoka River is located 1,100 feet to the southeast.

## 5.3 Soils

The 1980 USDA soil survey of Dubois County lists the soil type at the site as the following:

Bonnie Silt Loam (Bo), frequently flooded, typically located in flood plains, and formed from acid silty alluvium, typically consisting of silt loam grading clayey loam with depth. Depth to water table 0 to 12 inches.

Stendal Silt Loam (St), frequently flooded, Silt Loam (Bo), frequently flooded, typically located in flood plains, and formed from acid silty alluvium, typically consisting of silt loam grading clayey loam with depth. Depth to water table 6 to 24 inches.

## 5.4 Hydrogeology

The nearest surface water drainage in the vicinity is the Patoka River located approximately 1,100 feet to the southeast. Based on site topography and local drainage patterns, groundwater flow direction is likely to the northeast towards the Patoka River. Site geology is fine grained silts, sands and clays.

Three groundwater monitoring wells (MW-1 through MW-3) were installed as part of the ISC investigation. Surface topography and regional groundwater flow would suggest groundwater flow to the northeast. Groundwater elevations measured using the static water levels in the wells confirm this direction. Groundwater flow is presented on **Figure 5**. Borings encountered fine grained silts, sands and clays which were saturated with depth.

## 5.6 Locations of Low and High-Capacity Water Wells

Indiana Department of Natural Resources (IDNR) Division of Water (DOW) records indicate that eight (9) low-capacity water wells that might be potable water wells within a 1-mile radius of the site. Some of those wells may not be located correctly. The wells are listed below:

175085	Bedrock, 53 feet deep, 2166 ft to east.
248633	Bedrock, 185 feet deep, 3402 ft to west.
196107	Bedrock, 230 feet deep, 4927 ft to southwest.
418139	Bedrock, 100 feet deep, 4900 ft to southwest.
195992	Bedrock, 103 feet deep, 3789 ft to east.
195972	Bedrock, 84 feet deep, 3560 ft to east.
195977	Bedrock, 111 feet deep, 5238 ft to northeast.

381990 Bedrock, 30 feet deep, 4108 ft to north.

Based on the review of the wells located using the Indiana DNR Water Well Viewer, only wells completed in bedrock are within the 1-mile radius. No potable water wells would likely be impacted from this release. No potable water wells are in the vicinity of the site. All areas in the vicinity are serviced by municipal water utilities.

Indiana Department of Natural Resources (IDNR) Division of Water (DOW) records indicate that no high-capacity water wells are located within a 2-mile radius of the site.

Based upon the IDEM Wellhead Protection Area Proximity Determination web service, the site is not located within a wellhead protection area.

### 5.7 Land use in the Vicinity of the Site

Land use in the area of the site is commercial and industrial. The City of Jasper Street Department is located to the south. No residential properties are located in the vicinity (**Figure 2**).

## 6.0 SITE SPECIFIC INVESTIGATION

### 6.1 Potentially Susceptible Areas

No human and environmentally sensitive areas exist in the area of the site. Land use is commercial in all directions. The site is in a floodplain setting. No potable water wells are in the vicinity of the site and no wells are completed in the floodplain sediments. All potable water wells in the area appear to be bedrock wells. The closest of the bedrock wells is over 2,000 feet east of the site.

To determine if the facility is in a well head protection area, IDEM's online Wellhead Proximity Determinator program was utilized. It was determined that the facility is not in a wellhead protection area.

### 6.2 Potential Petroleum Contaminants

Since the petroleum release as the facility was gasoline and/or diesel, the potential Contaminants of Concern (COCs) for the facility are as follows:

Soil - Volatile Organic Compounds (VOCS) by EPA Method 8260, Polyaromatic Hydrocarbons (PAHs) by EPA Method 8270sim and Lead by EPA Method 6010.

Groundwater - Volatile Organic Compounds (VOCS) by EPA Method 8260, Polyaromatic Hydrocarbons (PAHs) by EPA Method 8270sim and Lead by EPA Method 6010 (totals and dissolved).

### 6.3 ISC Site Investigation

On June 5, 2024, HES advanced three (3) borings around the facility tank pit and dispensers for the purpose of installing three (3) groundwater water monitoring wells. Monitoring wells were placed to have one monitoring well down gradient from the tank pit area. based on surface topography. Upon completion of soil collection, the three (3) borings were converted into two-inch diameter PVC monitoring wells to evaluate groundwater conditions. Two samples per soil boring were collected based on PID readings and field observations. The monitoring wells were developed by hand using dedicated bailers. Groundwater samples were collected on June 12, 2024. All soil cuttings and groundwater purge waters were placed in DOT approved 55-gallon drums pending disposal (**Appendix C**).

### 6.4 Soil Investigation

Three (3) soil borings (MW-1 through MW-3) were advanced in the vicinity of the UST pit and dispensers to a depth of 20' below ground surface (see **Figure 3** for boring/monitoring well locations). The borings were advanced using direct push technology (Power Probe 9520sk). The Power Probe 9520sk utilizes a dual tube system. The outer casing is continually advanced while the inner-rods secure and withdraw the four-foot (4') acetate sleeve.

Since a new sleeve is inserted before each sampling interval, decontamination activities are performed after the boring has reached its maximum depth. The outer casing is withdrawn and decontaminated by washing with a stiff brush in Liquinox (laboratory detergent)/deionized water solution followed by a triple-rinse with deionized water.

Four-foot (4') samples from the Power Probe were divided into two (2) foot sections. These sections (i.e., 0 to 2' and 2 to 4', etc.) were separated into two (2) representative subsamples at the time of collection. The first subsample was collected using the closed-system field collection method (Method 5035A) with an approved coring device calibrated for the extraction of 5 grams of soil and placed in volatile organic analysis (VOA) vials (Terra Core). Samples for UST lead and PAHs were placed in 4 oz glass jars with Teflon sealed lids. The samples were stored on ice in a cooler pending field screening results using a pre-calibrated Photo-Ionization Detector (PID). The second subsample was placed in a Zip-Lock bag and allowed to heat to ambient temperatures. A PID calibrated against 100 ppm isobutylene was employed to screen each two (2) foot interval for volatile organic compounds (VOCs). PID readings are recorded on the boring logs in **Appendix D**.

Two (2) soil samples were submitted for laboratory analysis from each boring. The soil interval selected was based on field observations, depths as related to the UST system and on PID readings. During sampling, disposable gloves were worn by the sampler and changed between sample intervals. The selected sample(s) were completely labeled to identify their location, sample number, date and time of collection. A Chain of Custody document was also utilized to document all persons who took possession of the sample(s) from the time of collection until delivery to the laboratory.

## 6.5 Monitoring Well Installation

Once continuous soil sampling and screening was completed at each well location, HES directed the installation of three 2-inch diameter monitoring wells to a depth of 20 feet (MW-1 through MW-3). The locations of the wells are indicated on **Figure 3 – Site Map**. The groundwater monitoring wells were installed to a total depth of twenty (20) feet and constructed of ten (10) feet of 0.010-inch slot well screen with the remaining constructed of solid riser. The annular space around the well screen was filled with washed quartz sand and capped with two (2) feet of bentonite. The remaining annular space was then filled with bentonite grout to the ground surface. A locking manhole cover was installed over each well to prevent damage and to inhibit tampering.

After allowing sufficient time for the new groundwater monitoring wells to set up after installation, the wells were developed to insure good hydraulic communication between the water bearing strata and the wells. The wells were developed by using disposable polyethylene bailers. All purge waters and soil cuttings were stored in labeled 55-gallon steel drums.

All wellhead elevations of the groundwater monitoring wells were surveyed to within 0.01 foot, the survey data and static water levels were then used to determine the direction of groundwater flow (see **Figure 4**).

## 6.6 Groundwater Sampling

On June 12, 2024, HES returned to the site to measure static groundwater levels and to sample the newly installed monitoring wells (MW-1 through MW-3). Groundwater elevations are presented in **Table 1**. A water level indicator was used to measure static water level at each well location. The water level indicator was decontaminated before collecting measurements from each well by washing the probe and tape in a Liquinox (laboratory detergent)/de-ionized water solution followed by triple-rinse de-ionized water. Personnel involved with gathering water measurements wore disposable gloves and replaced these gloves between well locations. Groundwater elevations were then calculated using the static water levels.

All groundwater samples were collected by personnel wearing dedicated, disposable nitrile gloves and using disposable polyethylene bailers. Samples were placed into pre-labeled preserved 40-mL vials with zero headspace and immediately placed on ice. The samples were completely labeled to identify their location, sample number, date and time of collection. A Chain of Custody document accompanied the samples to the laboratory recording all persons who had possession of the samples from the time of collection until delivery to the laboratory. One duplicate sample from MW-3 and one MS/MSD sample were collected. Additionally, a trip blank was placed in the cooler with the groundwater samples and analyzed by the laboratory for VOCs.

Well construction diagrams are included in **Appendix D**. Monitoring well locations are presented on **Figure 3**. Groundwater elevations and static water levels are presented in **Table 1**.

## 6.7 Groundwater Elevation Calculation

The wells were surveyed using a Nikon AC-2.0 level. MW-1 was used as a benchmark with set elevation at 100.00'. Top of casing elevations of the three (3) wells are as follows:

MW-1	100.00
MW-2	100.11
MW-3	100.22

**Table 1** displays the data collected during the survey activities.

## 6.8 Sampling Methods and Documentation

All sampling methods have been previously described. Final laboratory reports are the ISC investigation are included as **Appendix E** Level IV QA/QC is available on request.

## 7.0 RESULTS AND CONCLUSIONS

### 7.1 Soil Analytical Results

Laboratory analysis of soil samples collected from borings MW-1 through MW-3 indicated levels of VOCs above laboratory reporting limit but below IDEM R2 PLs. The selected COC laboratory analysis for the soil borings is presented as **Table 2**, while the full laboratory results can be viewed in **Appendix E**.

### 7.2 Groundwater Analytical Results

On June 12, 2024, water samples were collected from each monitoring well and submitted to the laboratory for contaminants of concern (COC) analysis. Laboratory results indicated the following compound exceeding R2 GWPLs:

MW-1 did not exceed R2 GWPLs for any VOC or PAH compounds

MW-2 did not exceed R2 GWPLs for any VOC or PAH compounds

MW-3 did not exceed R2 GWPLs for any VOC or PAH compounds

Duplicate (MW-3) did not exceed R2 GWPLs for any VOC or PAH compounds

In addition, HES requested the laboratory run additional groundwater samples for Lead Dissolved with samples being filtered in the laboratory. The results of the dissolved lead analysis indicated all levels to be below R2 GWPL. The filtered lead results suggest the lead in the water is most likely from the soil particulates. Groundwater laboratory analysis for MW-1 through MW-3 is presented in **Table 3**, while the laboratory results can be viewed in **Appendix E**.

### 7.3 Potential Exposure Pathways

Exposure pathways are as follows:

### 7.3.1 Direct Soil Contact

All soil samples are below IDEM R2 PLs. All soil is covered with concrete or asphalt. Should utilities excavation or other construction occur, precautions to decrease exposure should be taken. Currently this pathway is not completed.

### 7.3.2 Groundwater Ingestion

No potable water wells are in the vicinity of the site. All wells within a 1-mile radius of the facility are bedrock wells. The facility and surrounding properties utilize the municipal water supply. Groundwater ingestion pathway is not completed.

### 7.3.2 Vapor Intrusion

Since groundwater and soil sample laboratory results are all below PLs, vapor intrusion is not a viable exposure pathway.

## 7.4 Conclusions

Groundwater flow at the facility was determined utilizing MW-1 through MW-3. Static water levels during the June 12, 2024, sampling event indicate groundwater flow to the northeast. Soil sample laboratory analysis did not indicate any COCs above IDEM R2 PLs. Groundwater sample analysis did not indicate any COCs in the groundwater over the IDEM GW PLs. No further investigation or remediation is warranted.

## 8.0 RECOMMENDATIONS

Since all soil and groundwater results are below IDEM PLs, no further investigation is necessary. HES recommends that a “No Further Remediation” determination be issued for this release. No Further Site Investigation (FSI) is warranted and no FSI workplan has been included.

## 9.0 EVALUATION OF POTENTIAL REMEDIES

Not Applicable.

## 10.0 References

Gray, Henry H., Curtis H. Ault, and Stanley J. Keller, *Bedrock Geologic Map of Indiana*, Miscellaneous Map 48, 1987.

Gray, Henry H., *Quaternary Geologic Map of Indiana*, Miscellaneous Map 49, 1989.

Gray, Henry H., *Map of Indiana Showing Thickness of Unconsolidated Deposits*, Miscellaneous Map 38, 1983.

Kelly, Leo A., and others, 1976, *Soil Survey of Vanderburgh County, Indiana*, US Department of Agriculture – Soil Conservation Service.

*Remediation Closure Guide*, Office of Land Quality, Indiana Department of Environmental Management.

#### 11.0 ENVIRONMENTAL PROFESSIONAL COMMENTS REGARDING INFORMATION NOT SUBMITTED AS REQUIRED

Cross sections were not submitted. HES will submit cross sections if any follow-up investigation is deemed to be necessary. HES is requesting closure of this release based on soil and groundwater sampling conducted during the ISC.

12.0 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 complete per 329 IAC 9-5-5.1. I certify that the report was submitted to the IDEM Leaking Underground Storage Tank Section on the date listed below.

Mark E. Phillips	Senior Geologist	HES Inc	6/27/24
_____ Name	_____ Position	_____ Company	_____ Date

Environmental Professional Credentials:

Mark E. Phillips 6/27/24 (signature and date)

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.

Additional Signatures (as appropriate or desired)

Jarrod K. Richeson 6-27-2024 (signature and date)  
Jarrod K. Richeson, Senior Project Manager 6/27/2024  
\_\_\_\_\_  
(printed name and date)

## FIGURES

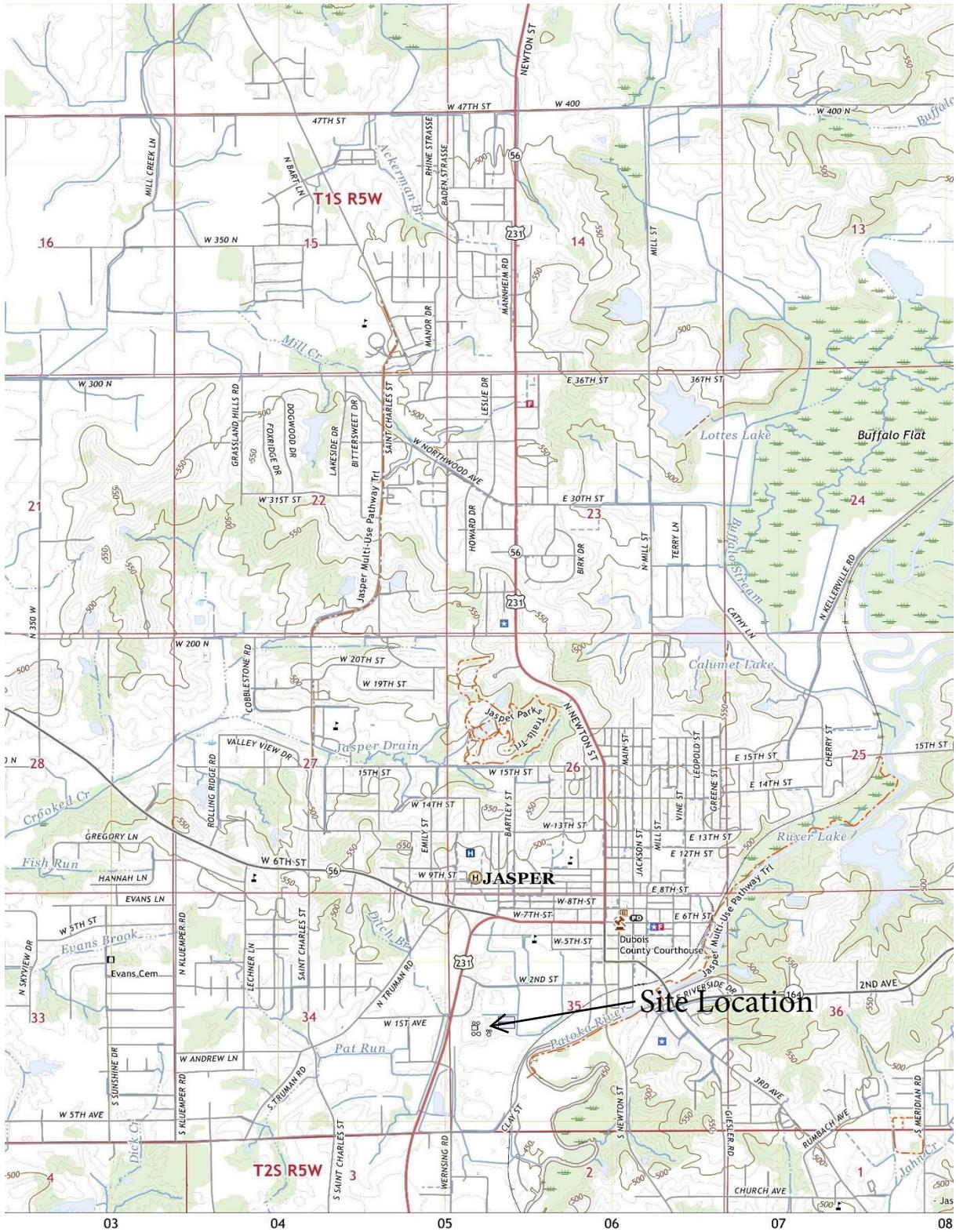
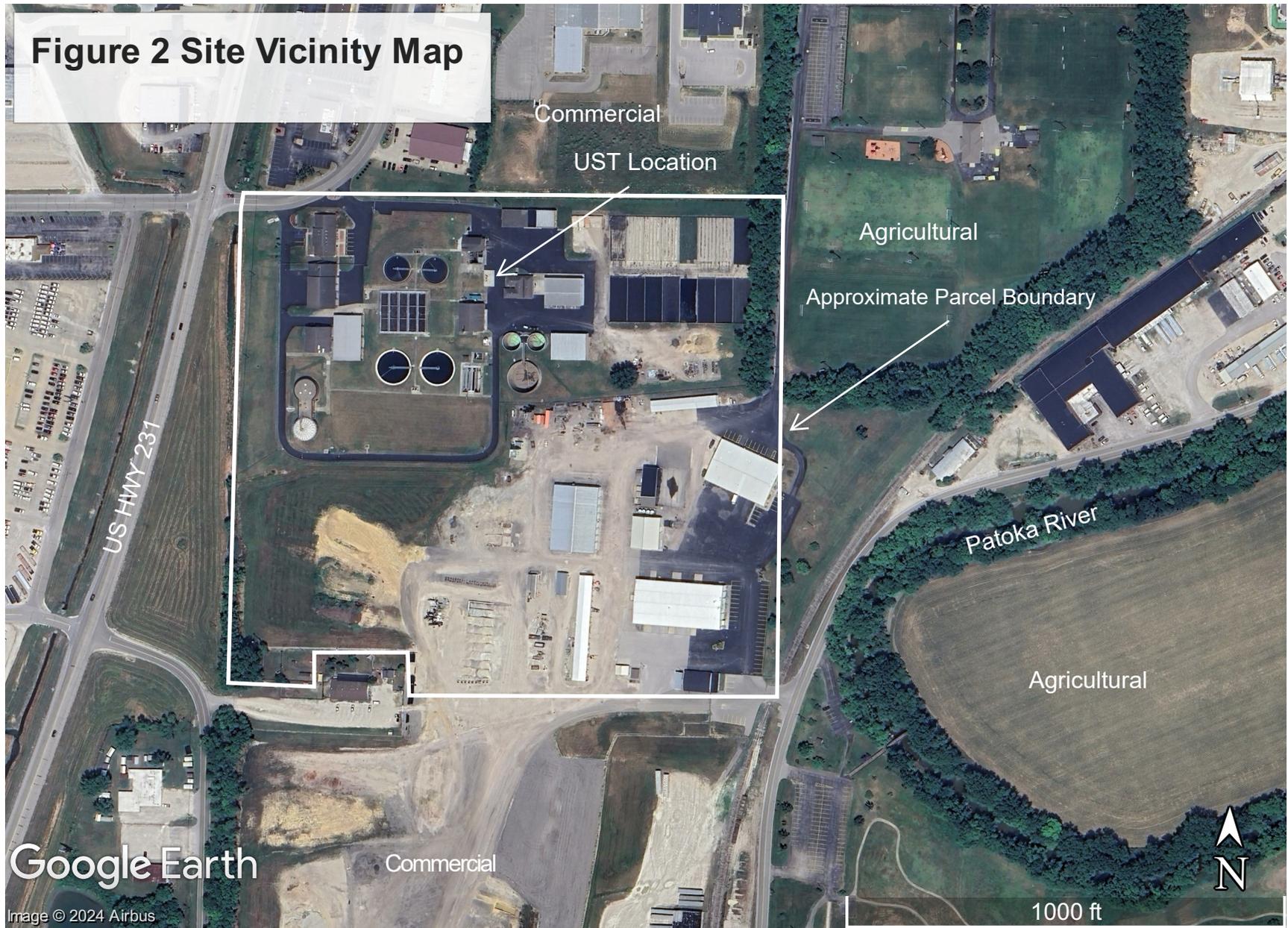


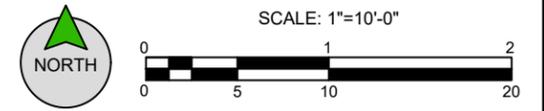
Figure 1 Topographical Location Map

from USGS Jasper 2022 Quadrangle Map

**Figure 2 Site Vicinity Map**



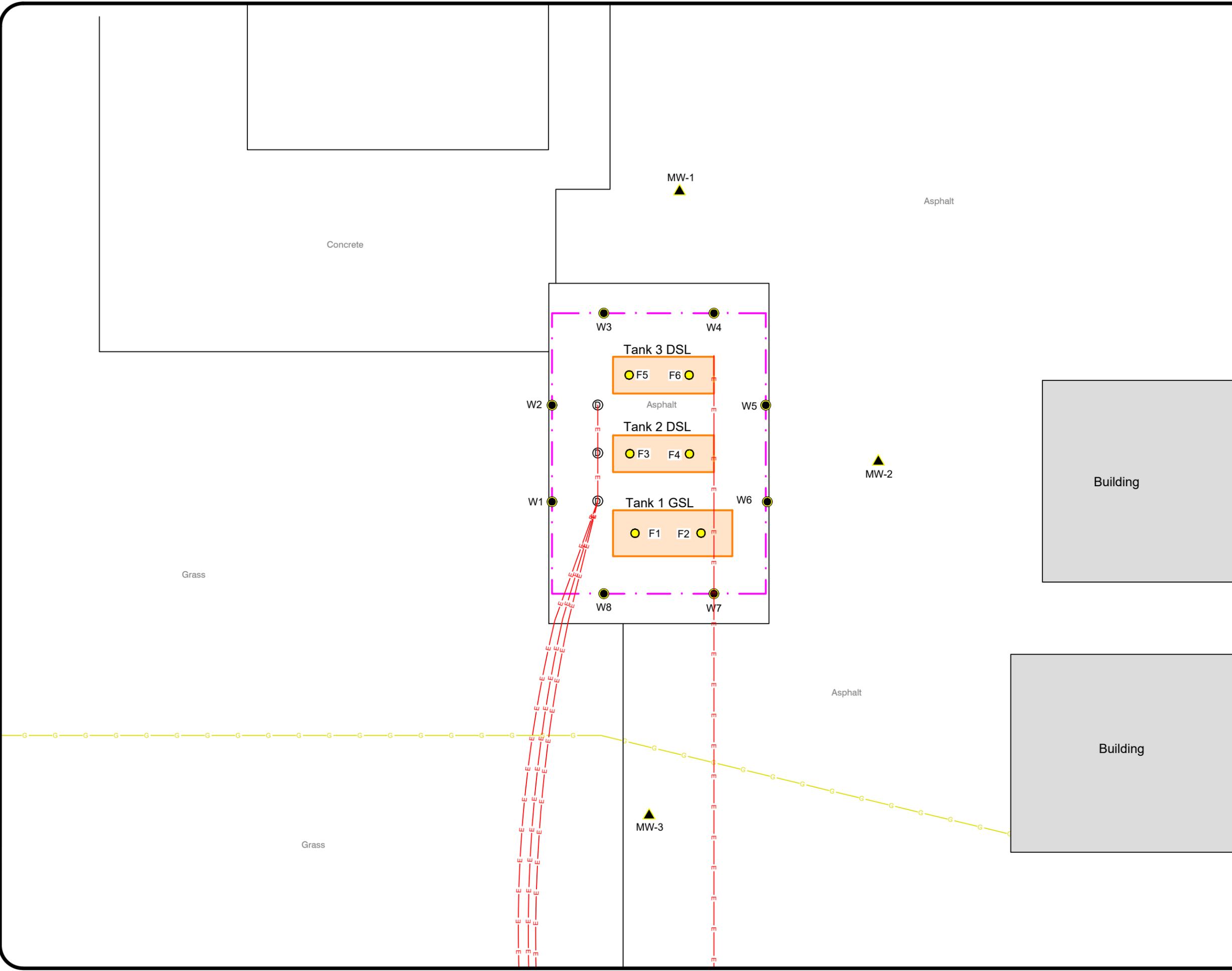
Jasper Waste Water Treatment Plant  
110 US HWY 231, Jasper, IN  
Drawn By: HES on 6/25/2024  
Drawing No: 500347.dwg



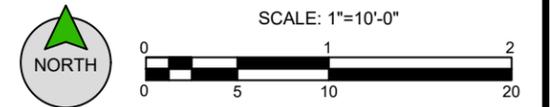
**Legend**

- UST Closure Wall Sample
- UST Closure Floor Sample
- Dispenser
- Monitoring Well
- UST
- UST Pit
- Gas Line
- Electric Line

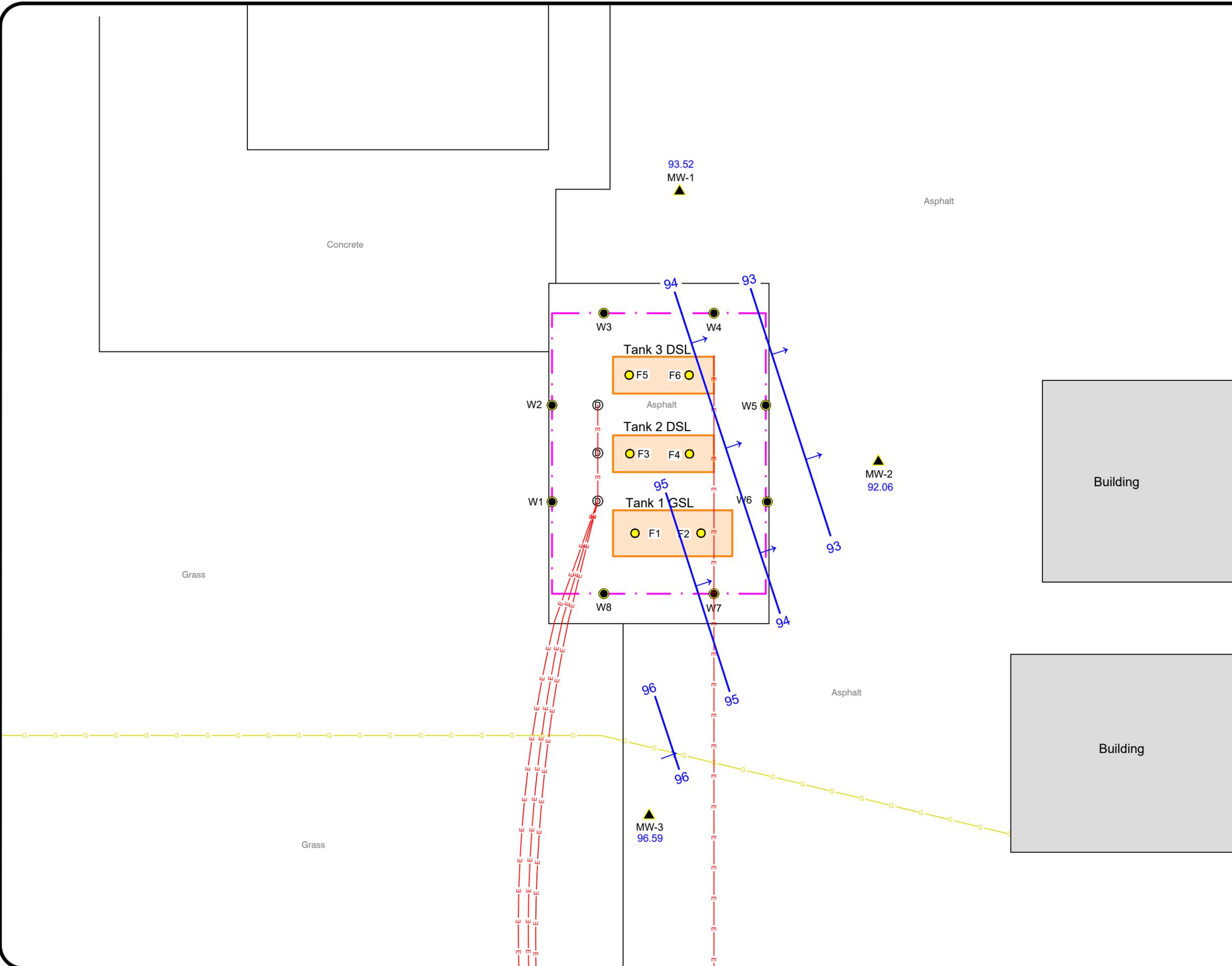
Results of the UST Wall and Floor samples are included in the UST Closure Report dated May 15, 2024



**Jasper Waste Water Treatment Plant**  
 110 US HWY 231, Jasper, IN  
 Drawn By: HES on 6/25/2024  
 Drawing No: 500347.dwg



- Legend**
- Wall Sample
  - Floor Sample
  - Monitoring Well
  - Dispenser
  - UST
  - UST Pit
  - Gas Line
  - Electric Line
  - 94.00 Relative Groundwater Elevation
  - Relative Groundwater Elevation Direction
  - 94 Relative Groundwater Elevation Contour



## TABLES

Table 1 Groundwater Elevations and Well Data

Well Number	Date	TOC Elevation*	Depth to Water	Water Table Elevation	Screen Interval	Total Depth
MW-1	6/12/2024	100.00	6.48	93.52	10-20	20
MW-2	6/12/2024	100.11	8.05	92.06	10-20	20
MW-3	6/12/2024	100.22	3.63	96.59	10-20	20

\*assumed 100.00 ft temporary benchmark on MW-1

Table 2 Soil Analytical Summary (Hits Only)

Sample Identification	Date Collected	VOCs by EPA Method 8260								PAHs by EPA Method 8270sim								Inorganics via EPA 6010
		1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Butanone (MEK)	Acetone	Carbon disulfide	Chlorobenzene	Xylene (Total)	Remaining VOCs	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Chrysene	Fluoranthene	Phenanthrene	Pyrene	Remaining SVOCs	Lead
MW1 16-18	06/05/2024	<0.00072	<0.00072	<0.0029	<b>0.061 J</b>	<0.00053	<0.00059	<0.0011	BRL	<0.0016	<0.0033	<0.0031	<0.0038	<0.0039	<0.0040	<0.0038	BRL	<b>7.3</b>
MW1 18-20	06/05/2024	<0.0015	<0.0015	<0.0069	<b>0.063 J</b>	<0.0015	<0.0012	<b>0.0021 J</b>	BRL	<0.0016	<0.0034	<b>0.0043 J</b>	<0.0039	<b>0.0054 J</b>	<0.0041	<b>0.0058</b>	BRL	<b>6.9</b>
MW2 12-14	06/05/2024	<0.00090	<0.00090	<0.0036	<b>0.038 J</b>	<0.00066	<0.00073	<0.0013	BRL	<0.0017	<0.0035	<0.0032	<0.0040	<0.0041	<0.0042	<0.0040	BRL	<b>4.3</b>
MW2 18-20	06/05/2024	<0.00063	<0.00060	<0.011	<b>0.031 J</b>	<b>0.00080 J</b>	<0.00062	<0.0012	BRL	<b>0.0045 J</b>	<b>0.0042 J</b>	<b>0.0051 J</b>	<b>0.0041 J</b>	<b>0.0095</b>	<b>0.0045 J</b>	<b>0.0080</b>	BRL	<b>6.5</b>
MW3 12-14	06/05/2024	<b>0.0018 J</b>	<b>0.011</b>	<b>0.050</b>	<b>0.23</b>	<b>0.0024 J</b>	<b>0.023</b>	<0.0014	BRL	<0.0017	<0.0035	<0.0032	<0.0041	<0.0041	<0.0042	<0.0040	BRL	<b>7.9</b>
MW3 18-20	06/05/2024	<0.00067	<0.00065	<0.012	<b>0.026 J</b>	<b>0.00081 J</b>	<0.00066	<0.0013	BRL	<0.0017	<0.0037	<0.0034	<0.0042	<0.0043	<0.0044	<0.0042	BRL	<b>5.6</b>
DUP MW3 18-20	06/05/2024	<0.00069	<0.00066	<0.013	<b>0.029 J</b>	<b>0.0010 J</b>	<0.00068	<0.0013	BRL	<0.0017	<0.0035	<0.0032	<0.0040	<0.0041	<0.0042	<0.0040	BRL	<b>6.7</b>
<b>IDEM R2 RSPL</b>		<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>Varies</b>	<b>20</b>	<b>2</b>	<b>20</b>	<b>2,000</b>	<b>3,000</b>	<b>NE</b>	<b>3,000</b>	<b>Varies</b>	<b>400</b>
<b>IDEM R2 CSPL</b>		<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>Varies</b>	<b>200</b>	<b>20</b>	<b>200</b>	<b>20,000</b>	<b>30,000</b>	<b>NE</b>	<b>20,000</b>	<b>Varies</b>	<b>800</b>
<b>IDEM R2 XSPL</b>		<b>NE</b>	<b>20,000</b>	<b>30,000</b>	<b>100,000</b>	<b>700</b>	<b>800</b>	<b>300</b>	<b>Varies</b>	<b>10,000</b>	<b>500</b>	<b>10,000</b>	<b>100,000</b>	<b>70,000</b>	<b>NE</b>	<b>50,000</b>	<b>Varies</b>	<b>1,000</b>

Notes

<b>BOLD</b>	= Constituent detected above Laboratory Reporting Limit
<b>BOLD</b>	= Constituent detected above IDEM R2 RSPL
<b>BOLD</b>	= Constituent detected above IDEM R2 CSPL
<b>BOLD</b>	= Constituent detected above IDEM R2 XSPL

NE = No Screening Level Established for Constituent

NA = Sample not Analyzed for Constituent

BRL - Below Laboratory Reporting Limit

1 = Values listed are for Cadmium (diet)

2 = Values listed are for Cadmium (water)

3 = Values listed are for Chromium III

Remaining results reported in milligrams per kilogram (mg/kg)

IDEM = Indiana Department of Environmental Management

R2 = Risk-Based Closure Guide

RSPL = Residential soil published limit

CSPL = Commercial soil published limit

XSPL = Excavation soil published limit

Table 3 Groundwater Analytical Summary (Hits Only)

Sample Identification	Date Collected	VOCs by EPA 8260			PAHs via EPA 8270 by SIM 40E										Inorganics via EPA 6010	
		Benzene	Naphthalene	Remaining VOCs	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Anthracene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Pyrene	Remaining SVOCs	Lead	Lead, Dissolved
MW-1	06/12/2024	<b>0.57 J</b>	<0.44	BRL	<0.086	<0.097	<0.093	<0.080	<0.073	<0.095	<0.41	<0.10	<0.098	BRL	<b>6.9 J</b>	<b>3.7 J</b>
MW-2	06/12/2024	<0.20	<0.44	BRL	<0.086	<0.097	<0.093	<0.080	<0.073	<0.095	<0.41	<0.10	<0.098	BRL	<b>3.5 J</b>	<2.5
MW-3	06/12/2024	<0.20	<0.44	BRL	<b>0.24 J</b>	<b>0.33 J</b>	<b>0.68 J</b>	<b>0.081 J</b>	<b>0.23 J</b>	<b>0.30 J</b>	<b>0.46 J</b>	<b>0.63 J</b>	<b>0.11 J</b>	BRL	<b>12.6</b>	<2.5
Dup	06/12/2024	<0.20	<b>0.74 J</b>	BRL	<0.086	<0.097	<0.093	<0.080	<0.073	<0.095	<0.40	<0.10	<0.098	BRL	<b>4.5 J</b>	<2.5
Trip Blank	06/12/2024	<0.20	<0.44	BRL												
<b>IDEM R2 GWPL</b>		<b>5</b>	<b>1</b>	<b>Varies</b>	<b>10</b>	<b>40</b>	<b>500</b>	<b>2,000</b>	<b>800</b>	<b>300</b>	<b>1</b>	<b>NE</b>	<b>100</b>	<b>Varies</b>	<b>15</b>	<b>15</b>

Notes

**BOLD** = Constituent detected above Laboratory Reporting Limit  
**BOLD** = Constituent detected above IDEM R2 GWPL

IDEM = Indiana Department of Environmental Management

R2 = Risk-Based Closure Guide

GWPL = Groundwater Published Level

Remaining results reported in micrograms per liter (ug/L)

NE = No Screening Level Established for Constituent

NA = Sample not Analyzed for Constituent

BRL - Below Laboratory Reporting Limit

APPENDIX A  
IDEM CORRESPONDENCE



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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**Eric J. Holcomb**  
Governor

**Brian C. Rockensuess**  
Commissioner

April 23, 2024

## VIA ELECTRONIC MAIL

Mr. Wayne Murry  
City of Jasper  
610 Main Street  
Jasper, IN 47546  
[wmurry@jasperindiana.gov](mailto:wmurry@jasperindiana.gov)

**Re: Initial Site Characterization Request**  
City of Jasper Wastewater Treatment Plant  
110 US Hwy 231  
Jasper, IN, 47546  
Dubois County  
Facility ID #19176  
Incident #202404512

Dear Mr. Murry:

A release from an Underground Storage Tank (UST) at City of Jasper Wastewater Treatment Plant located at 110 US Hwy 231 in Jasper, Indiana was reported by Jarrod Richeson, Hinderliter Environmental Services, Inc. on April 22, 2024. Your compliance must proceed in accordance with IC 13-23-13-1 and 40 CFR 280 Subpart F,<sup>1</sup>.

### Initial Site Characterization

The purpose of the ISC is to gather information regarding the release and surrounding area, including, but not limited to, evaluation of potential pathways for migration, and evaluation of receptors. Pursuant to IC 13-23-13-1, when necessary and feasible as determined by a qualified environmental professional (QEP) (as defined in IC 13-11-2-177.7), an ISC must include:

1. Site-specific geologic information obtained from a minimum of three (3) continuously sampled soil borings;
2. Hydrogeologic information, including depth to ground water and groundwater flow directions and gradients, obtained from a minimum of three (3) monitoring wells screened across the water table; and

---

<sup>1</sup> IDEM has incorporated the majority of the federal underground storage tank regulations of 40 Code Fed. Reg. (CFR) Part 280 via 329 Ind. Admin. Code 9-1-1. All CFR citations refer to the regulation as incorporated.



Visit [on.IN.gov/survey](https://on.IN.gov/survey) or scan the QR code to provide feedback.

*We appreciate your input!*



3. Other pertinent information as outlined in 40 CFR 280.63 and be consistent with the Risk-based Closure Guide (R2, Waste #0046-R2) and the Petroleum Remediation Program Guide (PRPG, Waste-0082). These non-rule policy documents are available at [www.in.gov/idem/tanks/2329.htm](http://www.in.gov/idem/tanks/2329.htm).

The borings and wells should be installed in areas most likely to be contaminated.

Per IC 13-23-13-1, a QEP, on behalf of the owner or operator of an UST from which there has been a release of petroleum, may submit for approval by the commissioner an alternative procedure for ISC and request a waiver of the requirement. Proof of QEP credentials must be provided. For clarity and to ensure UST Owner engagement, the QEP should copy the UST Owner on any correspondence. The commissioner may approve the request for a waiver and alternative procedure only if the alternative procedure provides substantially equal protection for human health and the environment. Your QEP must submit the waiver request for an alternative procedure as soon as sufficient environmental data are obtained to make the determination that an alternative procedure meets the requirements of IC 13-23-13-1.

Pursuant to 40 CFR 280.63 you must assemble information about the site and nature of the release, including information gathered while confirming the release or completing the initial abatement measures in 40 CFR 280.60, 280.61 and 280.62. This information must include, but is not necessarily limited to the following:

1. Data on the nature and estimated quantity of the release;
2. Data from available sources and/or site investigations concerning the following factors: Surrounding populations, water quality, use and approximate locations of wells potentially affected by the release, subsurface soil conditions, locations of subsurface sewers, climatological conditions, land use;
3. Results of the site check required under 40 CFR 280.62(a)(5) (or 40 CFR 280.52 or 280.72, whichever is applicable); and
4. Results of free product investigations required under 40 CFR 280.62(a)(6), to be used by Owners and Operators to determine whether free product must be recovered under 40 CFR 280.64.

#### **40 CFR 280.65 Investigations for soil and groundwater cleanup (Further Site Investigations)**

If an ISC does not fully define the nature and extent of the contaminant plume, additional investigation shall be performed in accordance with 40 CFR 280.65 or when necessary and feasible as determined by a QEP. If this is the case for this particular release, a Further Site Investigation (FSI) Report will be required and the ISC Report must contain a work plan for the FSI. The work plan should detail additional activities that are proposed and should provide a schedule of the FSI activities.

In order to determine the full extent and location of soils contaminated by the release and the presence and concentrations of dissolved product contamination in the groundwater, owners and operators must conduct release investigations of the release, the release site, and the surrounding area possibly affected by the release if any of the following conditions exist:

1. There is evidence that groundwater wells have been affected by the release (e.g., as found during release confirmation or previous corrective action measures);
2. Free product is found to need recovery in compliance with 40 CFR 280.64;
3. There is evidence that contaminated soils may be in contact with groundwater (e.g., as found during conduct of the initial response measures or investigations required under 40 CFR 280.60 through 280.64); and
4. The implementing agency requests an investigation, based on the potential effects of contaminated soil or groundwater on nearby surface water and groundwater resources.

Releases requiring an FSI to complete site characterization will be given a deadline 365 days from the date the release was discovered to determine the full nature and extent of soil and groundwater contamination and submit documentation to IDEM. If delineation requires more than one mobilization and sampling event, the owner or operator should continue with delineation until the delineation process is completed and then submit a comprehensive FSI Report within the 365-day deadline set by IDEM. Interim report and work plan submittal and IDEM review is not required. However, IDEM advises that you receive project manager approval for an FSI work plan (entailing a one page summary of proposed work and a site map with proposed sampling locations) to assist with showing reasonableness and cost effectiveness for the purposes of the Excess Liability Trust Fund (ELTF). The IDEM project manager assigned to your site will be available to provide informal guidance via telephone, email, or on-site support during the step out process.

### **Additional IDEM expectations**

In order to facilitate complete site characterization within a year, IDEM requests that staff be notified of all investigative site work in a timely manner. Early staff involvement with the site investigation will assist in efforts to develop a complete conceptual site model within the year timeframe. Please inform the project manager via email or telephone (listed below) as field work dates for investigations are scheduled.

### **Conclusions**

Within 60 days of the release confirmation an Initial Site Characterization (ISC) Report must be submitted to IDEM. **The due date for the ISC Report is June 21, 2024. No extensions will be granted.**

All ISC Reports must be submitted in the ISC Report Format and include an ISC Checklist and ISC Cover Sheet for IDEM to complete their review.

IDEM's goal is to review all ISC reports within sixty days (60) days of receipt and return the evaluated checklist. All items marked as inadequate on the returned and signed ISC Checklist must be addressed in the timeframe required in IDEM correspondence.

IDEM requests Petroleum Remediation Section (PRS) correspondence, reports, and related documents under 15 MB be submitted electronically to: [LeakingUST@IDEM.in.gov](mailto:LeakingUST@IDEM.in.gov). Paper copies and CDs are no longer necessary as previously required in OLQ Document Submittal Guidelines. Please label the email and attached documents as directed below:

- Email Subject Line: REPORT NAME (ie. 1Q 2023 QMR, ISC, FSI, etc.)\_FID (insert number)\_LUST (insert number)\_DATE (yyyymmdd)
- Document/File Name: REPORT NAME (ie. 1Q 2023 QMR, ISC, FSI, etc.)\_FID (insert number)\_LUST (insert number)\_DATE (yyyymmdd)

For more information regarding, sampling and analysis requirements or technical information, visit the LUST Home page at [www.in.gov/idem/tanks/2333.htm](http://www.in.gov/idem/tanks/2333.htm) or contact the site project manager.

Failure to submit this information within the specified timeframe may result in a referral to IDEM Enforcement.

If you have any questions, please contact Aaron Fix at (317) 232-8006 or toll free from within Indiana at (800) 451-6027. He can also be reached at: [afix@idem.IN.gov](mailto:afix@idem.IN.gov).

Sincerely,



Sherry Jordan  
Environmental Project Manager  
Petroleum Remediation Section  
Petroleum Branch  
Office of Land Quality

Ecopy: IDEM File  
Dubois County Health Department  
Southwest Regional Office  
Jarrod Richeson, Hinderliter Environmental Services, Inc.  
R. Hartshorne, Hinderliter Environmental Services, Inc.  
Dalton Melloy, Hinderliter Environmental Services, Inc.  
Mark Phillips, Hinderliter Environmental Services, Inc.

## APPENDIX B

### UST INFORMATION



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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**Eric J. Holcomb**  
*Governor*

**Brian C. Rockensuess**  
*Commissioner*

August 18, 2022

City of Jasper  
PO Box 29  
Jasper, IN 47547

City of Jasper Wastewater Treatment Plant  
Attn: Ed Holliden  
Via email: [ehollinden@jasperindiana.gov](mailto:ehollinden@jasperindiana.gov)

Re: Violation Letter  
City of Jasper Mun Wastewater  
110 US Hwy 231  
Jasper, Dubois County  
UST Facility ID # **19176**

Dear Mr. Hollinden:

An inspector from the Indiana Department of Environmental Management (IDEM), Underground Storage Tank (UST) Section, conducted an inspection of the site referenced above on May 17, 2022.

The inspection was conducted pursuant to Indiana Code (IC) 13-14-2-2 to determine compliance with the provisions of IC 13-23 and 329 IAC 9. In accordance with IC 13-14-5, a summary of the inspection is provided below:

Type of Inspection: Initial

Results of Inspection: Violations were discovered and require a submittal.

Within thirty (30) days of receipt of this letter, documentation demonstrating compliance with each of the requirements listed in the attached Inspection Report and Description of Violations (DOV) must be submitted to IDEM. Failure to submit this documentation may lead to this facility being referred for enforcement.

An enforcement action may include civil penalties of up to \$10,000 per UST. Enforcement actions may also affect the owner's and/or operator's eligibility for reimbursement from the Excess Liability Trust Fund (ELTF). Additionally, IDEM may deem the UST's at this facility ineligible for delivery, deposit or acceptance of regulated substances pursuant to IC 13-23-1-4. Finally, federal and criminal penalties may apply for failure to provide required notification; or submitting false information pursuant to IC 13-23-14-2 and liable under IC 13-30-10.

Thank you for your attention to this matter. Please submit the required documents to the UST Section via email at [USTCompliance@idem.in.gov](mailto:USTCompliance@idem.in.gov). Include in the subject line of the response the UST Facility ID # 19176.

Inspector: Brock Goodman  
Phone: (812) 582-9843

Direct any questions regarding the inspection to:

Compliance Manager: Chuck Phipps  
Phone: (317) 234-2808

Sincerely,



---

Thomas F. Newcomb, Chief  
UST Compliance Section  
Office of Land Quality

cc: Chuck Phipps  
Brock Goodman  
UST Facility ID File # 19176

**DESCRIPTION OF VIOLATIONS**

This inspection or records review revealed that the owner and/or operator of this facility is in violation of Indiana UST Rule 329 IAC 9. 329 Indiana Administrative Code ("IAC") 9 incorporates certain federal underground storage tank requirements found in 40 Code of Federal Regulations ("CFR") Part 280, including those identified below. The Description of Violations (DOV) and corrective measures are as follows:

<b>FACILITY NAME:</b> City of Jasper Municipal	<b>UST FACILITY ID:</b> 19176
<b>ADDRESS:</b> 110 US Highway 231 Jasper, IN 47546	<b>INSPECTION DATE:</b> May 17, 2022

**VIOLATIONS NOTED IN THIS INSPECTION**

**329 IAC 9-8-11(b)** – Failure to demonstrate the ability to pay the deductible amount

**Citation:**

Pursuant to 329 IAC 9-8-11(b), an owner or operator of:

- (1) twelve (12) or fewer USTs shall demonstrate the ability to pay the applicable deductible amount under IC 13-23-9-1.3; or
- (2) more than twelve (12) USTs shall demonstrate the ability to pay two (2) times the applicable deductible amount under IC 13-23-9-1.3.

**Violation Details:**

*The owner and/or operator of the UST system(s) at this site are in violation of this rule because the financial mechanism used (local government fund) has no end date for the current year.*

**Corrective Action:**

The owner and/or operator of the UST systems at this site shall submit a copy of the instrument proving they have the coverage required by this rule with an end date within thirty (30) days of receipt of this notice.

**§ 280.35(a)(1)** – Failure to perform periodic testing of spill prevention equipment and containment sumps used for IM

**Citation:**

Pursuant to 40 CFR 280.35(a)(1), owners and operators of UST systems with spill and overfill prevention equipment and containment sumps used for interstitial monitoring of piping must meet these requirements to ensure the equipment is operating properly and will prevent releases to the environment:

- (1) Spill prevention equipment (such as a catchment basin, spill bucket, or other spill containment device) and containment sumps used for interstitial monitoring of piping must prevent releases to the environment.

## APPENDIX C

### WASTE DISPOSAL MANIFESTS

Please print or type  
(Form designed for use on elite (12-pitch) typewriter)

<b>NON-HAZARDOUS WASTE MANIFEST</b>	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone <b>800-255-3924</b>	4. Waste Tracking Number <b>945362</b>		
5. Generator's Name and Mailing Address <b>** Jasper West Water Treatment Plant 110 US HWY 231 Jasper, IN 47548 Generator's Phone: 812-425-4137</b>		Generator's Site Address (if different than mailing address)				
6. Transporter 1 Company Name <b>Environmental Technologies LLC</b>			U.S. EPA ID Number <b>INR000007989</b>			
7. Transporter 2 Company Name			U.S. EPA ID Number			
8. Designated Facility Name and Site Address <b>Environmental Technologies LLC 2534 Locust Creek Drive Evansville, IN 47720 Facility's Phone: 812-925-3610</b>			U.S. EPA ID Number <b>INR000007989</b>			
GENERATOR	9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.
			No.	Type		
	1. <b>Non Hazardous/ Non-Regulated Solid (Soil Cuttings)</b>		<b>0004 DM0220 G</b>			
	2.					
	3.					
4.						
13. Special Handling Instructions and Additional Information <b>1.)</b>			<b>Emergency Contact: CHEMTEL CONTRACT #MIS9496463</b>			
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.						
Generator's/Officer's Printed/Typed Name <b>Don Rasche</b>			Signature <i>Don Rasche</i>		Month Day Year <b>06 20 24</b>	
TRANSPORTER	15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.			Port of entry/exit: Date leaving U.S.:		
	16. Transporter Acknowledgment of Receipt of Materials					
	Transporter 1 Printed/Typed Name <b>JOHN BRADY</b>		Signature <i>[Signature]</i>		Month Day Year <b>06 20 24</b>	
Transporter 2 Printed/Typed Name		Signature		Month Day Year		
DESIGNATED FACILITY	17. Discrepancy					
	17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
	17b. Alternate Facility (or Generator)			Manifest Reference Number:      U.S. EPA ID Number		
	Facility's Phone:					
17c. Signature of Alternate Facility (or Generator)					Month Day Year	
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name <b>Nicole Englehardt</b>			Signature <i>Nicole Englehardt</i>		Month Day Year <b>06 24 24</b>	

## APPENDIX D

### SOIL BORING AND WELL CONSTRUCTION LOGS



Jasper Waste Water Treatment Plant  
110 S US 231  
Jasper, IN

Date Started- : 06/05/2024  
Date Completed- : 06/05/2024  
Driller- : Richardville Drilling  
Drill Method- : 2" Direct Push  
Drill Equipment- : AMS POWERPROBE 9520sk

GWL Depth- : 6.48  
GWL Date- : 06/12/2024  
Field Engineer- : Dalton Melloy  
Geologist- : Reese Hartshorne  
Boring Termination : 20.0 ft.

PROJECT # 500756

Depth in Feet	Recovery (ft)	USCS	GRAPHIC	DESCRIPTION	Lab No.	PID (ppm)	Well: MW-1 Elev: 100.00	Well Construction Information
0				ASPHALT				<b>WELL CONSTRUCTION</b> Date Compl. : 06/05/2024 Hole Diameter : 7 1/4" Drill. Method : H. Stem Auger Company Rep. : Richardville Drilling  <b>WELL CASING</b> Material : PVC Diameter : 2" Joints : Threaded Opening : .10 Slot Total Length : 10.0'  <b>WELL SCREEN</b> Material : PVC Diameter : 2" Joints : Threaded Opening : .10 Slot Total Length : 10.0'  <b>SAND PACK</b> : #5 Quartz Sand Interval : 9.0'-20.0'  <b>ANNULUS SEAL</b> Seal Interval : 0.5-9.0'  <b>GROUT SEAL</b> : Benseal Seal Interval : 0-0.5'
3.80	CO					<1		
2	SM			SANDY SILT, dark yellowish brown (10YR 4/6) with grey mottling, slightly moist, stiff.		<1		
4						<1		
2.58				SANDY SILT, dark yellowish brown (10YR 4/4), moist, soft.		<1		
6	SM					<1		
8						<1		
4.0				FINE SAND, dark yellowish brown (10YR 4/4), well sorted and sub-rounded grains, no grading, loose.		<1		
10	SP					<1		
12						<1		
3.50						<1		
14	SM			SILT, dark yellowish brown (10YR 4/4) with light grey mottling, moist, soft.		<1		
16						<1		
3.80				SILTY CLAY, dark grey with black streaks, very moist, stiff.	16-18'	<1		
18	CL				18-20'	<1		
20						<1	WELL TERMINATED @ 20.0'	



Jasper Waste Water Treatment Plant  
110 S US 231  
Jasper, IN

Date Started- : 06/05/2024  
Date Completed- : 06/05/2024  
Driller- : Richardville Drilling  
Drill Method- : 2" Direct Push  
Drill Equipment- : AMS POWERPROBE 9520sk

GWL Depth- : 8.05  
GWL Date- : 06/12/2024  
Field Engineer- : Dalton Melloy  
Geologist- : Reese Hartshorne  
Boring Termination : 20.0 ft.

PROJECT # 500756

Depth in Feet	Recovery (ft)	USCS	GRAPHIC	DESCRIPTION	Lab No.	PID (ppm)	Well: MW-2 Elev.: 100.11	Well Construction Information
0				ASPHALT and gravel backfill				<b>WELL CONSTRUCTION</b> Date Compl. : 06/05/2024 Hole Diameter : 7 1/4" Drill. Method : H. Stem Auger Company Rep. : Richardville Drilling  <b>WELL CASING</b> Material : PVC Diameter : 2" Joints : Threaded Opening : .10 Slot Total Length : 10.0'  <b>WELL SCREEN</b> Material : PVC Diameter : 2" Joints : Threaded Opening : .10 Slot Total Length : 10.0'  <b>SAND PACK</b> : #5 Quartz Sand Interval : 9.0'-20.0'  <b>ANNULUS SEAL</b> : Granular Bentonite Seal Interval : 0.5-9.0'  <b>GROUT SEAL</b> : Benseal Seal Interval : 0-0.5'
2.89						<1		
2	CO					<1		
3.10				SILT, dark brown (10YR 2/1) with black streaks.		<1		
4						<1		
6	SM					<1		
8				SILT, light grey, wet, loose.		<1		
10	SM					<1		
12				SILT, light grey, loose, very wet. Sediment is almost completely saturated with water.	12-14'	<1		
14						<1		
16	SM					<1		
18						<1		
20					18-20'	<1	WELL TERMINATED @ 20.0'	



Jasper Waste Water Treatment Plant  
110 S US 231  
Jasper, IN

Date Started- : 06/05/2024  
Date Completed- : 06/05/2024  
Driller- : Richardville Drilling  
Drill Method- : 2" Direct Push  
Drill Equipment- : AMS POWERPROBE 9520sk

GWL Depth- : 3.63  
GWL Date- : 06/12/2024  
Field Engineer- : Dalton Melloy  
Geologist- : Reese Hartshorne  
Boring Termination : 20.0 ft.

PROJECT # 500756

Depth in Feet	Recovery (ft)	USCS	GRAPHIC	DESCRIPTION	Lab No.	PID (ppm)	Well: MW-3 Elev.: 100.22	Well Construction Information
0				ASPHALT				<b>WELL CONSTRUCTION</b> Date Compl. : 06/05/2024 Hole Diameter : 7 1/4" Drill. Method : H. Stem Auger Company Rep. : Richardville Drilling  <b>WELL CASING</b> Material : PVC Diameter : 2" Joints : Threaded Opening : .10 Slot Total Length : 10.0'  <b>WELL SCREEN</b> Material : PVC Diameter : 2" Joints : Threaded Opening : .10 Slot Total Length : 10.0'  <b>SAND PACK</b> : #5 Quartz Sand Interval : 9.0'-20.0'  <b>ANNULUS SEAL</b> Seal Interval : 0.5-9.0'  <b>GROUT SEAL</b> : Benseal Seal Interval : 0-0.5'
3.58	CO					<1		
2				MED SAND, brown (7.5 4/4), wet, loose, well-sorted, sub-rounded grains with no grading.		<1		
4						<1		
2.4	SP					<1		
6						<1		
8				MED SAND, dark grey, wet, loose. well sorted, sub-rounded grains with no grading.		<1		
3.07	SP					<1		
10						<1		
12				CLAY, dark grey, wet, loose.	12-14'	<1		
3.70	CL					<1		
14						<1		
16				SILT, yellowish brown (10YR 5/4), moist, stiff.		<1		
3.83	SM					<1		
18					10-20'	<1		
20				FINE SAND, dark grey, moist, well sorted with no grading.		<1		
	SP					<1		

WELL TERMINATED @ 20.0'

## APPENDIX E

### ANALYTICAL REPORTS



June 20, 2024

Jarrold Richeson  
Hinderliter Environmental  
3601 N. St. Joseph Ave  
Evansville, IN 47720

RE: Project: Jasper WWTP  
Pace Project No.: 50375064

Dear Jarrold Richeson:

Enclosed are the analytical results for sample(s) received by the laboratory on June 06, 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

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

Sincerely,

Allison Martinez  
allison.martinez@pacelabs.com  
(317)228-3118  
Project Manager

Enclosures

cc: Lindsey Gish, Hinderliter Environmental  
Reese Hartshorne, Hinderliter Environmental  
Desiree Largent, Hinderliter Environmental  
Dalton Melloy, Hinderliter Environmental  
Mark Phillips, Hinderliter  
Shawn Sullivan, Hinderliter Environmental



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Jasper WWTP

Pace Project No.: 50375064

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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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### SAMPLE SUMMARY

Project: Jasper WWTP

Pace Project No.: 50375064

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50375064001	MW1 16-18	Solid	06/05/24 08:22	06/06/24 09:15
50375064002	MW1 18-20	Solid	06/05/24 08:22	06/06/24 09:15
50375064003	MW2 12-14	Solid	06/05/24 09:36	06/06/24 09:15
50375064004	MW2 18-20	Solid	06/05/24 09:38	06/06/24 09:15
50375064005	MW3 12-14	Solid	06/05/24 10:24	06/06/24 09:15
50375064006	MW3 18-20	Solid	06/05/24 10:26	06/06/24 09:15
50375064007	DUP	Solid	06/05/24 08:00	06/06/24 09:15

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### SAMPLE ANALYTE COUNT

Project: Jasper WWTP

Pace Project No.: 50375064

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50375064001	MW1 16-18	EPA 6010	JPK	1	PASI-I
		EPA 8270 by SIM	JCM	20	PASI-I
		EPA 8260	TMW	73	PASI-I
		SM 2540G	QAK	1	PASI-I
50375064002	MW1 18-20	EPA 6010	JPK	1	PASI-I
		EPA 8270 by SIM	JCM	20	PASI-I
		EPA 8260	TMW	73	PASI-I
		SM 2540G	QAK	1	PASI-I
50375064003	MW2 12-14	EPA 6010	JPK	1	PASI-I
		EPA 8270 by SIM	JCM	20	PASI-I
		EPA 8260	TMW	73	PASI-I
		SM 2540G	QAK	1	PASI-I
50375064004	MW2 18-20	EPA 6010	JPK	1	PASI-I
		EPA 8270 by SIM	JCM	20	PASI-I
		EPA 8260	SLB	73	PASI-I
		SM 2540G	QAK	1	PASI-I
50375064005	MW3 12-14	EPA 6010	JPK	1	PASI-I
		EPA 8270 by SIM	JCM	20	PASI-I
		EPA 8260	SLB	73	PASI-I
		SM 2540G	QAK	1	PASI-I
50375064006	MW3 18-20	EPA 6010	JPK	1	PASI-I
		EPA 8270 by SIM	JCM	20	PASI-I
		EPA 8260	SLB	73	PASI-I
		SM 2540G	QAK	1	PASI-I
50375064007	DUP	EPA 6010	JPK	1	PASI-I
		EPA 8270 by SIM	JCM	20	PASI-I
		EPA 8260	SLB	73	PASI-I
		SM 2540G	QAK	1	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

### REPORT OF LABORATORY ANALYSIS

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## SUMMARY OF DETECTION

Project: Jasper WWTP

Pace Project No.: 50375064

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50375064001</b>	<b>MW1 16-18</b>					
EPA 6010	Lead	7.3	mg/kg	1.0	06/18/24 01:28	
EPA 8260	Acetone	0.061J	mg/kg	0.096	06/17/24 17:02	
SM 2540G	Percent Moisture	14.0	%	0.10	06/14/24 15:47	N2
<b>50375064002</b>	<b>MW1 18-20</b>					
EPA 6010	Lead	6.9	mg/kg	1.0	06/18/24 01:30	
EPA 8270 by SIM	Benzo(b)fluoranthene	0.0043J	mg/kg	0.0057	06/17/24 18:55	
EPA 8270 by SIM	Fluoranthene	0.0054J	mg/kg	0.0057	06/17/24 18:55	
EPA 8270 by SIM	Pyrene	0.0058	mg/kg	0.0057	06/17/24 18:55	
EPA 8260	Acetone	0.063J	mg/kg	0.20	06/18/24 20:24	
EPA 8260	Xylene (Total)	0.0021J	mg/kg	0.020	06/18/24 20:24	RS
SM 2540G	Percent Moisture	13.9	%	0.10	06/14/24 15:48	N2
<b>50375064003</b>	<b>MW2 12-14</b>					
EPA 6010	Lead	4.3	mg/kg	1.2	06/18/24 01:43	
EPA 8260	Acetone	0.038J	mg/kg	0.12	06/17/24 17:32	
SM 2540G	Percent Moisture	17.3	%	0.10	06/14/24 15:48	N2
<b>50375064004</b>	<b>MW2 18-20</b>					
EPA 6010	Lead	6.5	mg/kg	1.1	06/18/24 01:45	
EPA 8270 by SIM	Benzo(a)anthracene	0.0045J	mg/kg	0.0057	06/17/24 17:30	
EPA 8270 by SIM	Benzo(a)pyrene	0.0042J	mg/kg	0.0057	06/17/24 17:30	
EPA 8270 by SIM	Benzo(b)fluoranthene	0.0051J	mg/kg	0.0057	06/17/24 17:30	
EPA 8270 by SIM	Chrysene	0.0041J	mg/kg	0.0057	06/17/24 17:30	
EPA 8270 by SIM	Fluoranthene	0.0095	mg/kg	0.0057	06/17/24 17:30	
EPA 8270 by SIM	Phenanthrene	0.0045J	mg/kg	0.0057	06/17/24 17:30	
EPA 8270 by SIM	Pyrene	0.0080	mg/kg	0.0057	06/17/24 17:30	
EPA 8260	Acetone	0.031J	mg/kg	0.093	06/18/24 14:12	
EPA 8260	Carbon disulfide	0.00080J	mg/kg	0.0093	06/18/24 14:12	
SM 2540G	Percent Moisture	17.9	%	0.10	06/14/24 15:48	N2
<b>50375064005</b>	<b>MW3 12-14</b>					
EPA 6010	Lead	7.9	mg/kg	1.2	06/18/24 01:46	
EPA 8260	Acetone	0.23	mg/kg	0.11	06/18/24 14:41	
EPA 8260	2-Butanone (MEK)	0.050	mg/kg	0.027	06/18/24 14:41	
EPA 8260	Carbon disulfide	0.0024J	mg/kg	0.011	06/18/24 14:41	
EPA 8260	Chlorobenzene	0.023	mg/kg	0.0055	06/18/24 14:41	
EPA 8260	1,3-Dichlorobenzene	0.0018J	mg/kg	0.0055	06/18/24 14:41	
EPA 8260	1,4-Dichlorobenzene	0.011	mg/kg	0.0055	06/18/24 14:41	
SM 2540G	Percent Moisture	19.0	%	0.10	06/14/24 15:48	N2
<b>50375064006</b>	<b>MW3 18-20</b>					
EPA 6010	Lead	5.6	mg/kg	1.1	06/18/24 01:48	
EPA 8260	Acetone	0.026J	mg/kg	0.10	06/18/24 15:11	
EPA 8260	Carbon disulfide	0.00081J	mg/kg	0.010	06/18/24 15:11	
SM 2540G	Percent Moisture	18.4	%	0.10	06/14/24 15:48	N2
<b>50375064007</b>	<b>DUP</b>					
EPA 6010	Lead	6.7	mg/kg	1.1	06/18/24 01:50	
EPA 8260	Acetone	0.029J	mg/kg	0.10	06/18/24 15:41	

## REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: Jasper WWTP

Pace Project No.: 50375064

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50375064007</b>	<b>DUP</b>					
EPA 8260	Carbon disulfide	0.0010J	mg/kg	0.010	06/18/24 15:41	
SM 2540G	Percent Moisture	18.2	%	0.10	06/14/24 15:48	N2

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW1 16-18 Lab ID: 50375064001 Collected: 06/05/24 08:22 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Indianapolis						
Lead	7.3	mg/kg	1.0	1	06/17/24 09:01	06/18/24 01:28	7439-92-1	
<b>8270 PAH Soil by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Indianapolis						
Acenaphthene	<0.0022	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	83-32-9	
Acenaphthylene	<0.0021	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	208-96-8	
Anthracene	<0.0028	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	120-12-7	
Benzo(a)anthracene	<0.0016	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	56-55-3	
Benzo(a)pyrene	<0.0033	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	50-32-8	
Benzo(b)fluoranthene	<0.0031	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	205-99-2	
Benzo(g,h,i)perylene	<0.0033	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	191-24-2	
Benzo(k)fluoranthene	<0.0026	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	207-08-9	
Chrysene	<0.0038	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	218-01-9	
Dibenz(a,h)anthracene	<0.0027	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	53-70-3	
Fluoranthene	<0.0039	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	206-44-0	
Fluorene	<0.0022	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.0028	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	193-39-5	
1-Methylnaphthalene	<0.0022	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	90-12-0	
2-Methylnaphthalene	<0.0053	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	91-57-6	
Naphthalene	<0.0051	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	91-20-3	
Phenanthrene	<0.0040	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	85-01-8	
Pyrene	<0.0038	mg/kg	0.0056	1	06/14/24 15:10	06/17/24 18:41	129-00-0	
<b>Surrogates</b>								
2-Fluorobiphenyl (S)	64	%.	16-93	1	06/14/24 15:10	06/17/24 18:41	321-60-8	
p-Terphenyl-d14 (S)	78	%.	19-115	1	06/14/24 15:10	06/17/24 18:41	1718-51-0	
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Acetone	0.061J	mg/kg	0.096	1		06/17/24 17:02	67-64-1	
Acrolein	<0.016	mg/kg	0.096	1		06/17/24 17:02	107-02-8	
Acrylonitrile	<0.0023	mg/kg	0.096	1		06/17/24 17:02	107-13-1	
Benzene	<0.00054	mg/kg	0.0048	1		06/17/24 17:02	71-43-2	
Bromobenzene	<0.00067	mg/kg	0.0048	1		06/17/24 17:02	108-86-1	
Bromochloromethane	<0.00048	mg/kg	0.0048	1		06/17/24 17:02	74-97-5	
Bromodichloromethane	<0.00054	mg/kg	0.0048	1		06/17/24 17:02	75-27-4	
Bromoform	<0.00054	mg/kg	0.0048	1		06/17/24 17:02	75-25-2	
Bromomethane	<0.0015	mg/kg	0.0048	1		06/17/24 17:02	74-83-9	
2-Butanone (MEK)	<0.0029	mg/kg	0.024	1		06/17/24 17:02	78-93-3	
n-Butylbenzene	<0.00049	mg/kg	0.0048	1		06/17/24 17:02	104-51-8	
sec-Butylbenzene	<0.00047	mg/kg	0.0048	1		06/17/24 17:02	135-98-8	
tert-Butylbenzene	<0.00052	mg/kg	0.0048	1		06/17/24 17:02	98-06-6	
Carbon disulfide	<0.00053	mg/kg	0.0096	1		06/17/24 17:02	75-15-0	
Carbon tetrachloride	<0.0014	mg/kg	0.0048	1		06/17/24 17:02	56-23-5	
Chlorobenzene	<0.00059	mg/kg	0.0048	1		06/17/24 17:02	108-90-7	
Chloroethane	<0.0010	mg/kg	0.0048	1		06/17/24 17:02	75-00-3	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW1 16-18 Lab ID: 50375064001 Collected: 06/05/24 08:22 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Chloroform	<0.00061	mg/kg	0.0048	1		06/17/24 17:02	67-66-3	
Chloromethane	<0.00051	mg/kg	0.0048	1		06/17/24 17:02	74-87-3	
2-Chlorotoluene	<0.00058	mg/kg	0.0048	1		06/17/24 17:02	95-49-8	
4-Chlorotoluene	<0.00062	mg/kg	0.0048	1		06/17/24 17:02	106-43-4	
Dibromochloromethane	<0.00060	mg/kg	0.0048	1		06/17/24 17:02	124-48-1	
1,2-Dibromoethane (EDB)	<0.00053	mg/kg	0.0048	1		06/17/24 17:02	106-93-4	
Dibromomethane	<0.00055	mg/kg	0.0048	1		06/17/24 17:02	74-95-3	
1,2-Dichlorobenzene	<0.00074	mg/kg	0.0048	1		06/17/24 17:02	95-50-1	
1,3-Dichlorobenzene	<0.00072	mg/kg	0.0048	1		06/17/24 17:02	541-73-1	
1,4-Dichlorobenzene	<0.00072	mg/kg	0.0048	1		06/17/24 17:02	106-46-7	
trans-1,4-Dichloro-2-butene	<0.00069	mg/kg	0.096	1		06/17/24 17:02	110-57-6	
Dichlorodifluoromethane	<0.00050	mg/kg	0.0048	1		06/17/24 17:02	75-71-8	
1,1-Dichloroethane	<0.00039	mg/kg	0.0048	1		06/17/24 17:02	75-34-3	
1,2-Dichloroethane	<0.00045	mg/kg	0.0048	1		06/17/24 17:02	107-06-2	
1,1-Dichloroethene	<0.00058	mg/kg	0.0048	1		06/17/24 17:02	75-35-4	
cis-1,2-Dichloroethene	<0.00049	mg/kg	0.0048	1		06/17/24 17:02	156-59-2	
trans-1,2-Dichloroethene	<0.00044	mg/kg	0.0048	1		06/17/24 17:02	156-60-5	
1,2-Dichloropropane	<0.00050	mg/kg	0.0048	1		06/17/24 17:02	78-87-5	
1,3-Dichloropropane	<0.00051	mg/kg	0.0048	1		06/17/24 17:02	142-28-9	
2,2-Dichloropropane	<0.00042	mg/kg	0.0048	1		06/17/24 17:02	594-20-7	
1,1-Dichloropropene	<0.00045	mg/kg	0.0048	1		06/17/24 17:02	563-58-6	
cis-1,3-Dichloropropene	<0.00050	mg/kg	0.0048	1		06/17/24 17:02	10061-01-5	
trans-1,3-Dichloropropene	<0.00066	mg/kg	0.0048	1		06/17/24 17:02	10061-02-6	
Ethylbenzene	<0.00054	mg/kg	0.0048	1		06/17/24 17:02	100-41-4	
Ethyl methacrylate	<0.00056	mg/kg	0.096	1		06/17/24 17:02	97-63-2	
Hexachloro-1,3-butadiene	<0.00058	mg/kg	0.0048	1		06/17/24 17:02	87-68-3	
n-Hexane	<0.00031	mg/kg	0.0048	1		06/17/24 17:02	110-54-3	
2-Hexanone	<0.0025	mg/kg	0.096	1		06/17/24 17:02	591-78-6	
Iodomethane	<0.0011	mg/kg	0.096	1		06/17/24 17:02	74-88-4	
Isopropylbenzene (Cumene)	<0.00052	mg/kg	0.0048	1		06/17/24 17:02	98-82-8	
p-Isopropyltoluene	<0.00050	mg/kg	0.0048	1		06/17/24 17:02	99-87-6	
Methylene Chloride	<0.0048	mg/kg	0.019	1		06/17/24 17:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0023	mg/kg	0.024	1		06/17/24 17:02	108-10-1	
Methyl-tert-butyl ether	<0.00045	mg/kg	0.0048	1		06/17/24 17:02	1634-04-4	
Naphthalene	<0.0012	mg/kg	0.0048	1		06/17/24 17:02	91-20-3	
n-Propylbenzene	<0.00049	mg/kg	0.0048	1		06/17/24 17:02	103-65-1	
Styrene	<0.00058	mg/kg	0.0048	1		06/17/24 17:02	100-42-5	
1,1,1,2-Tetrachloroethane	<0.00065	mg/kg	0.0048	1		06/17/24 17:02	630-20-6	
1,1,2,2-Tetrachloroethane	<0.00051	mg/kg	0.0048	1		06/17/24 17:02	79-34-5	
Tetrachloroethene	<0.00044	mg/kg	0.0048	1		06/17/24 17:02	127-18-4	
Toluene	<0.0013	mg/kg	0.0048	1		06/17/24 17:02	108-88-3	
1,2,3-Trichlorobenzene	<0.00074	mg/kg	0.0048	1		06/17/24 17:02	87-61-6	
1,2,4-Trichlorobenzene	<0.00072	mg/kg	0.0048	1		06/17/24 17:02	120-82-1	
1,1,1-Trichloroethane	<0.00044	mg/kg	0.0048	1		06/17/24 17:02	71-55-6	
1,1,2-Trichloroethane	<0.00060	mg/kg	0.0048	1		06/17/24 17:02	79-00-5	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW1 16-18 Lab ID: 50375064001 Collected: 06/05/24 08:22 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Trichloroethene	<0.00052	mg/kg	0.0048	1		06/17/24 17:02	79-01-6	
Trichlorofluoromethane	<0.00034	mg/kg	0.0048	1		06/17/24 17:02	75-69-4	
1,2,3-Trichloropropane	<0.00052	mg/kg	0.0048	1		06/17/24 17:02	96-18-4	
1,2,4-Trimethylbenzene	<0.00058	mg/kg	0.0048	1		06/17/24 17:02	95-63-6	
1,3,5-Trimethylbenzene	<0.00054	mg/kg	0.0048	1		06/17/24 17:02	108-67-8	
Vinyl acetate	<0.0020	mg/kg	0.096	1		06/17/24 17:02	108-05-4	
Vinyl chloride	<0.00045	mg/kg	0.0048	1		06/17/24 17:02	75-01-4	
Xylene (Total)	<0.0011	mg/kg	0.0096	1		06/17/24 17:02	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102	%	75-135	1		06/17/24 17:02	1868-53-7	
Toluene-d8 (S)	99	%	65-148	1		06/17/24 17:02	2037-26-5	
4-Bromofluorobenzene (S)	101	%	63-132	1		06/17/24 17:02	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	14.0	%	0.10	1		06/14/24 15:47		N2

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW1 18-20 Lab ID: 50375064002 Collected: 06/05/24 08:22 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Indianapolis						
Lead	6.9	mg/kg	1.0	1	06/17/24 09:01	06/18/24 01:30	7439-92-1	
<b>8270 PAH Soil by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Indianapolis						
Acenaphthene	<0.0023	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	83-32-9	
Acenaphthylene	<0.0021	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	208-96-8	
Anthracene	<0.0029	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	120-12-7	
Benzo(a)anthracene	<0.0016	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	56-55-3	
Benzo(a)pyrene	<0.0034	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	50-32-8	
Benzo(b)fluoranthene	0.0043J	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	205-99-2	
Benzo(g,h,i)perylene	<0.0034	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	191-24-2	
Benzo(k)fluoranthene	<0.0026	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	207-08-9	
Chrysene	<0.0039	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	218-01-9	
Dibenz(a,h)anthracene	<0.0028	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	53-70-3	
Fluoranthene	0.0054J	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	206-44-0	
Fluorene	<0.0023	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.0029	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	193-39-5	
1-Methylnaphthalene	<0.0023	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	90-12-0	
2-Methylnaphthalene	<0.0054	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	91-57-6	
Naphthalene	<0.0052	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	91-20-3	
Phenanthrene	<0.0041	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	85-01-8	
Pyrene	0.0058	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 18:55	129-00-0	
<b>Surrogates</b>								
2-Fluorobiphenyl (S)	58	%	16-93	1	06/14/24 15:10	06/17/24 18:55	321-60-8	
p-Terphenyl-d14 (S)	65	%	19-115	1	06/14/24 15:10	06/17/24 18:55	1718-51-0	
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Acetone	0.063J	mg/kg	0.20	1		06/18/24 20:24	67-64-1	
Acrolein	<0.032	mg/kg	0.20	1		06/18/24 20:24	107-02-8	
Acrylonitrile	<0.0071	mg/kg	0.20	1		06/18/24 20:24	107-13-1	
Benzene	<0.0011	mg/kg	0.010	1		06/18/24 20:24	71-43-2	R1
Bromobenzene	<0.0014	mg/kg	0.010	1		06/18/24 20:24	108-86-1	
Bromochloromethane	<0.0011	mg/kg	0.010	1		06/18/24 20:24	74-97-5	
Bromodichloromethane	<0.0012	mg/kg	0.010	1		06/18/24 20:24	75-27-4	
Bromoform	<0.0013	mg/kg	0.010	1		06/18/24 20:24	75-25-2	
Bromomethane	<0.0012	mg/kg	0.010	1		06/18/24 20:24	74-83-9	
2-Butanone (MEK)	<0.0069	mg/kg	0.051	1		06/18/24 20:24	78-93-3	
n-Butylbenzene	<0.0011	mg/kg	0.010	1		06/18/24 20:24	104-51-8	
sec-Butylbenzene	<0.0010	mg/kg	0.010	1		06/18/24 20:24	135-98-8	
tert-Butylbenzene	<0.00099	mg/kg	0.010	1		06/18/24 20:24	98-06-6	
Carbon disulfide	<0.0015	mg/kg	0.020	1		06/18/24 20:24	75-15-0	
Carbon tetrachloride	<0.00089	mg/kg	0.010	1		06/18/24 20:24	56-23-5	
Chlorobenzene	<0.0012	mg/kg	0.010	1		06/18/24 20:24	108-90-7	R1
Chloroethane	<0.0022	mg/kg	0.010	1		06/18/24 20:24	75-00-3	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW1 18-20 Lab ID: 50375064002 Collected: 06/05/24 08:22 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Chloroform	<0.0014	mg/kg	0.010	1		06/18/24 20:24	67-66-3	R1
Chloromethane	<0.0012	mg/kg	0.010	1		06/18/24 20:24	74-87-3	
2-Chlorotoluene	<0.0012	mg/kg	0.010	1		06/18/24 20:24	95-49-8	
4-Chlorotoluene	<0.0013	mg/kg	0.010	1		06/18/24 20:24	106-43-4	
Dibromochloromethane	<0.0012	mg/kg	0.010	1		06/18/24 20:24	124-48-1	
1,2-Dibromoethane (EDB)	<0.0012	mg/kg	0.010	1		06/18/24 20:24	106-93-4	R1
Dibromomethane	<0.0012	mg/kg	0.010	1		06/18/24 20:24	74-95-3	
1,2-Dichlorobenzene	<0.0015	mg/kg	0.010	1		06/18/24 20:24	95-50-1	
1,3-Dichlorobenzene	<0.0015	mg/kg	0.010	1		06/18/24 20:24	541-73-1	
1,4-Dichlorobenzene	<0.0015	mg/kg	0.010	1		06/18/24 20:24	106-46-7	
trans-1,4-Dichloro-2-butene	<0.0015	mg/kg	0.20	1		06/18/24 20:24	110-57-6	
Dichlorodifluoromethane	<0.0011	mg/kg	0.010	1		06/18/24 20:24	75-71-8	
1,1-Dichloroethane	<0.00080	mg/kg	0.010	1		06/18/24 20:24	75-34-3	
1,2-Dichloroethane	<0.00091	mg/kg	0.010	1		06/18/24 20:24	107-06-2	R1
1,1-Dichloroethene	<0.0011	mg/kg	0.010	1		06/18/24 20:24	75-35-4	R1
cis-1,2-Dichloroethene	<0.0010	mg/kg	0.010	1		06/18/24 20:24	156-59-2	R1
trans-1,2-Dichloroethene	<0.00094	mg/kg	0.010	1		06/18/24 20:24	156-60-5	R1
1,2-Dichloropropane	<0.0011	mg/kg	0.010	1		06/18/24 20:24	78-87-5	R1
1,3-Dichloropropane	<0.0011	mg/kg	0.010	1		06/18/24 20:24	142-28-9	
2,2-Dichloropropane	<0.00088	mg/kg	0.010	1		06/18/24 20:24	594-20-7	
1,1-Dichloropropene	<0.00093	mg/kg	0.010	1		06/18/24 20:24	563-58-6	
cis-1,3-Dichloropropene	<0.0010	mg/kg	0.010	1		06/18/24 20:24	10061-01-5	
trans-1,3-Dichloropropene	<0.0011	mg/kg	0.010	1		06/18/24 20:24	10061-02-6	
Ethylbenzene	<0.0011	mg/kg	0.010	1		06/18/24 20:24	100-41-4	R1
Ethyl methacrylate	<0.0013	mg/kg	0.20	1		06/18/24 20:24	97-63-2	
Hexachloro-1,3-butadiene	<0.00096	mg/kg	0.010	1		06/18/24 20:24	87-68-3	
n-Hexane	<0.0018	mg/kg	0.010	1		06/18/24 20:24	110-54-3	R1
2-Hexanone	<0.0053	mg/kg	0.20	1		06/18/24 20:24	591-78-6	
Iodomethane	<0.0053	mg/kg	0.20	1		06/18/24 20:24	74-88-4	
Isopropylbenzene (Cumene)	<0.0011	mg/kg	0.010	1		06/18/24 20:24	98-82-8	R1
p-Isopropyltoluene	<0.0010	mg/kg	0.010	1		06/18/24 20:24	99-87-6	
Methylene Chloride	<0.0092	mg/kg	0.041	1		06/18/24 20:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0050	mg/kg	0.051	1		06/18/24 20:24	108-10-1	
Methyl-tert-butyl ether	<0.0014	mg/kg	0.010	1		06/18/24 20:24	1634-04-4	R1
Naphthalene	<0.0015	mg/kg	0.010	1		06/18/24 20:24	91-20-3	R1
n-Propylbenzene	<0.0010	mg/kg	0.010	1		06/18/24 20:24	103-65-1	
Styrene	<0.0013	mg/kg	0.010	1		06/18/24 20:24	100-42-5	
1,1,1,2-Tetrachloroethane	<0.0013	mg/kg	0.010	1		06/18/24 20:24	630-20-6	
1,1,2,2-Tetrachloroethane	<0.0013	mg/kg	0.010	1		06/18/24 20:24	79-34-5	R1
Tetrachloroethene	<0.0010	mg/kg	0.010	1		06/18/24 20:24	127-18-4	R1
Toluene	<0.0024	mg/kg	0.010	1		06/18/24 20:24	108-88-3	R1
1,2,3-Trichlorobenzene	<0.0012	mg/kg	0.010	1		06/18/24 20:24	87-61-6	
1,2,4-Trichlorobenzene	<0.0014	mg/kg	0.010	1		06/18/24 20:24	120-82-1	
1,1,1-Trichloroethane	<0.00085	mg/kg	0.010	1		06/18/24 20:24	71-55-6	R1
1,1,2-Trichloroethane	<0.0013	mg/kg	0.010	1		06/18/24 20:24	79-00-5	

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### ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW1 18-20 Lab ID: 50375064002 Collected: 06/05/24 08:22 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Trichloroethene	<0.00098	mg/kg	0.010	1		06/18/24 20:24	79-01-6	R1
Trichlorofluoromethane	<0.0060	mg/kg	0.010	1		06/18/24 20:24	75-69-4	
1,2,3-Trichloropropane	<0.0015	mg/kg	0.010	1		06/18/24 20:24	96-18-4	
1,2,4-Trimethylbenzene	<0.0012	mg/kg	0.010	1		06/18/24 20:24	95-63-6	R1
1,3,5-Trimethylbenzene	<0.0011	mg/kg	0.010	1		06/18/24 20:24	108-67-8	R1
Vinyl acetate	<0.0038	mg/kg	0.20	1		06/18/24 20:24	108-05-4	
Vinyl chloride	<0.0010	mg/kg	0.010	1		06/18/24 20:24	75-01-4	R1
Xylene (Total)	0.0021J	mg/kg	0.020	1		06/18/24 20:24	1330-20-7	RS
<b>Surrogates</b>								
Dibromofluoromethane (S)	101	%	75-135	1		06/18/24 20:24	1868-53-7	
Toluene-d8 (S)	99	%	65-148	1		06/18/24 20:24	2037-26-5	
4-Bromofluorobenzene (S)	100	%	63-132	1		06/18/24 20:24	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	13.9	%	0.10	1		06/14/24 15:48		N2

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW2 12-14 Lab ID: 50375064003 Collected: 06/05/24 09:36 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Indianapolis						
Lead	4.3	mg/kg	1.2	1	06/17/24 09:01	06/18/24 01:43	7439-92-1	
<b>8270 PAH Soil by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Indianapolis						
Acenaphthene	<0.0024	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	83-32-9	
Acenaphthylene	<0.0022	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	208-96-8	
Anthracene	<0.0029	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	120-12-7	
Benzo(a)anthracene	<0.0017	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	56-55-3	
Benzo(a)pyrene	<0.0035	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	50-32-8	
Benzo(b)fluoranthene	<0.0032	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	205-99-2	
Benzo(g,h,i)perylene	<0.0035	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	191-24-2	
Benzo(k)fluoranthene	<0.0027	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	207-08-9	
Chrysene	<0.0040	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	218-01-9	
Dibenz(a,h)anthracene	<0.0029	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	53-70-3	
Fluoranthene	<0.0041	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	206-44-0	
Fluorene	<0.0023	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.0030	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	193-39-5	
1-Methylnaphthalene	<0.0024	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	90-12-0	
2-Methylnaphthalene	<0.0055	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	91-57-6	
Naphthalene	<0.0054	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	91-20-3	
Phenanthrene	<0.0042	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	85-01-8	
Pyrene	<0.0040	mg/kg	0.0059	1	06/14/24 15:10	06/17/24 17:16	129-00-0	
<b>Surrogates</b>								
2-Fluorobiphenyl (S)	55	%.	16-93	1	06/14/24 15:10	06/17/24 17:16	321-60-8	
p-Terphenyl-d14 (S)	64	%.	19-115	1	06/14/24 15:10	06/17/24 17:16	1718-51-0	
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Acetone	0.038J	mg/kg	0.12	1		06/17/24 17:32	67-64-1	
Acrolein	<0.020	mg/kg	0.12	1		06/17/24 17:32	107-02-8	
Acrylonitrile	<0.0029	mg/kg	0.12	1		06/17/24 17:32	107-13-1	
Benzene	<0.00067	mg/kg	0.0060	1		06/17/24 17:32	71-43-2	
Bromobenzene	<0.00083	mg/kg	0.0060	1		06/17/24 17:32	108-86-1	
Bromochloromethane	<0.00060	mg/kg	0.0060	1		06/17/24 17:32	74-97-5	
Bromodichloromethane	<0.00068	mg/kg	0.0060	1		06/17/24 17:32	75-27-4	
Bromoform	<0.00067	mg/kg	0.0060	1		06/17/24 17:32	75-25-2	
Bromomethane	<0.0019	mg/kg	0.0060	1		06/17/24 17:32	74-83-9	
2-Butanone (MEK)	<0.0036	mg/kg	0.030	1		06/17/24 17:32	78-93-3	
n-Butylbenzene	<0.00061	mg/kg	0.0060	1		06/17/24 17:32	104-51-8	
sec-Butylbenzene	<0.00059	mg/kg	0.0060	1		06/17/24 17:32	135-98-8	
tert-Butylbenzene	<0.00065	mg/kg	0.0060	1		06/17/24 17:32	98-06-6	
Carbon disulfide	<0.00066	mg/kg	0.012	1		06/17/24 17:32	75-15-0	
Carbon tetrachloride	<0.0018	mg/kg	0.0060	1		06/17/24 17:32	56-23-5	
Chlorobenzene	<0.00073	mg/kg	0.0060	1		06/17/24 17:32	108-90-7	
Chloroethane	<0.0013	mg/kg	0.0060	1		06/17/24 17:32	75-00-3	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW2 12-14 Lab ID: 50375064003 Collected: 06/05/24 09:36 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Chloroform	<0.00076	mg/kg	0.0060	1		06/17/24 17:32	67-66-3	
Chloromethane	<0.00063	mg/kg	0.0060	1		06/17/24 17:32	74-87-3	
2-Chlorotoluene	<0.00072	mg/kg	0.0060	1		06/17/24 17:32	95-49-8	
4-Chlorotoluene	<0.00077	mg/kg	0.0060	1		06/17/24 17:32	106-43-4	
Dibromochloromethane	<0.00075	mg/kg	0.0060	1		06/17/24 17:32	124-48-1	
1,2-Dibromoethane (EDB)	<0.00066	mg/kg	0.0060	1		06/17/24 17:32	106-93-4	
Dibromomethane	<0.00068	mg/kg	0.0060	1		06/17/24 17:32	74-95-3	
1,2-Dichlorobenzene	<0.00093	mg/kg	0.0060	1		06/17/24 17:32	95-50-1	
1,3-Dichlorobenzene	<0.00090	mg/kg	0.0060	1		06/17/24 17:32	541-73-1	
1,4-Dichlorobenzene	<0.00090	mg/kg	0.0060	1		06/17/24 17:32	106-46-7	
trans-1,4-Dichloro-2-butene	<0.00086	mg/kg	0.12	1		06/17/24 17:32	110-57-6	
Dichlorodifluoromethane	<0.00062	mg/kg	0.0060	1		06/17/24 17:32	75-71-8	
1,1-Dichloroethane	<0.00049	mg/kg	0.0060	1		06/17/24 17:32	75-34-3	
1,2-Dichloroethane	<0.00056	mg/kg	0.0060	1		06/17/24 17:32	107-06-2	
1,1-Dichloroethene	<0.00073	mg/kg	0.0060	1		06/17/24 17:32	75-35-4	
cis-1,2-Dichloroethene	<0.00061	mg/kg	0.0060	1		06/17/24 17:32	156-59-2	
trans-1,2-Dichloroethene	<0.00054	mg/kg	0.0060	1		06/17/24 17:32	156-60-5	
1,2-Dichloropropane	<0.00062	mg/kg	0.0060	1		06/17/24 17:32	78-87-5	
1,3-Dichloropropane	<0.00064	mg/kg	0.0060	1		06/17/24 17:32	142-28-9	
2,2-Dichloropropane	<0.00053	mg/kg	0.0060	1		06/17/24 17:32	594-20-7	
1,1-Dichloropropene	<0.00056	mg/kg	0.0060	1		06/17/24 17:32	563-58-6	
cis-1,3-Dichloropropene	<0.00062	mg/kg	0.0060	1		06/17/24 17:32	10061-01-5	
trans-1,3-Dichloropropene	<0.00083	mg/kg	0.0060	1		06/17/24 17:32	10061-02-6	
Ethylbenzene	<0.00067	mg/kg	0.0060	1		06/17/24 17:32	100-41-4	
Ethyl methacrylate	<0.00070	mg/kg	0.12	1		06/17/24 17:32	97-63-2	
Hexachloro-1,3-butadiene	<0.00072	mg/kg	0.0060	1		06/17/24 17:32	87-68-3	
n-Hexane	<0.00039	mg/kg	0.0060	1		06/17/24 17:32	110-54-3	
2-Hexanone	<0.0032	mg/kg	0.12	1		06/17/24 17:32	591-78-6	
Iodomethane	<0.0013	mg/kg	0.12	1		06/17/24 17:32	74-88-4	
Isopropylbenzene (Cumene)	<0.00065	mg/kg	0.0060	1		06/17/24 17:32	98-82-8	
p-Isopropyltoluene	<0.00063	mg/kg	0.0060	1		06/17/24 17:32	99-87-6	
Methylene Chloride	<0.0060	mg/kg	0.024	1		06/17/24 17:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0029	mg/kg	0.030	1		06/17/24 17:32	108-10-1	
Methyl-tert-butyl ether	<0.00056	mg/kg	0.0060	1		06/17/24 17:32	1634-04-4	
Naphthalene	<0.0014	mg/kg	0.0060	1		06/17/24 17:32	91-20-3	
n-Propylbenzene	<0.00061	mg/kg	0.0060	1		06/17/24 17:32	103-65-1	
Styrene	<0.00072	mg/kg	0.0060	1		06/17/24 17:32	100-42-5	
1,1,1,2-Tetrachloroethane	<0.00080	mg/kg	0.0060	1		06/17/24 17:32	630-20-6	
1,1,1,2,2-Tetrachloroethane	<0.00063	mg/kg	0.0060	1		06/17/24 17:32	79-34-5	
Tetrachloroethene	<0.00055	mg/kg	0.0060	1		06/17/24 17:32	127-18-4	
Toluene	<0.0016	mg/kg	0.0060	1		06/17/24 17:32	108-88-3	
1,2,3-Trichlorobenzene	<0.00092	mg/kg	0.0060	1		06/17/24 17:32	87-61-6	
1,2,4-Trichlorobenzene	<0.00090	mg/kg	0.0060	1		06/17/24 17:32	120-82-1	
1,1,1-Trichloroethane	<0.00055	mg/kg	0.0060	1		06/17/24 17:32	71-55-6	
1,1,2-Trichloroethane	<0.00075	mg/kg	0.0060	1		06/17/24 17:32	79-00-5	

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**ANALYTICAL RESULTS**

Project: Jasper WWTP

Pace Project No.: 50375064

**Sample: MW2 12-14**      **Lab ID: 50375064003**      Collected: 06/05/24 09:36      Received: 06/06/24 09:15      Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Trichloroethene	<0.00065	mg/kg	0.0060	1		06/17/24 17:32	79-01-6	
Trichlorofluoromethane	<0.00042	mg/kg	0.0060	1		06/17/24 17:32	75-69-4	
1,2,3-Trichloropropane	<0.00065	mg/kg	0.0060	1		06/17/24 17:32	96-18-4	
1,2,4-Trimethylbenzene	<0.00072	mg/kg	0.0060	1		06/17/24 17:32	95-63-6	
1,3,5-Trimethylbenzene	<0.00067	mg/kg	0.0060	1		06/17/24 17:32	108-67-8	
Vinyl acetate	<0.0025	mg/kg	0.12	1		06/17/24 17:32	108-05-4	
Vinyl chloride	<0.00056	mg/kg	0.0060	1		06/17/24 17:32	75-01-4	
Xylene (Total)	<0.0013	mg/kg	0.012	1		06/17/24 17:32	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	101	%	75-135	1		06/17/24 17:32	1868-53-7	
Toluene-d8 (S)	101	%	65-148	1		06/17/24 17:32	2037-26-5	
4-Bromofluorobenzene (S)	101	%	63-132	1		06/17/24 17:32	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	17.3	%	0.10	1		06/14/24 15:48		N2

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW2 18-20 Lab ID: 50375064004 Collected: 06/05/24 09:38 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Pace Analytical Services - Indianapolis								
Lead	6.5	mg/kg	1.1	1	06/17/24 09:01	06/18/24 01:45	7439-92-1	
<b>8270 PAH Soil by SIM</b>								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Pace Analytical Services - Indianapolis								
Acenaphthene	<0.0023	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	83-32-9	
Acenaphthylene	<0.0022	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	208-96-8	
Anthracene	<0.0029	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	120-12-7	
Benzo(a)anthracene	0.0045J	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	56-55-3	
Benzo(a)pyrene	0.0042J	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	50-32-8	
Benzo(b)fluoranthene	0.0051J	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	205-99-2	
Benzo(g,h,i)perylene	<0.0034	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	191-24-2	
Benzo(k)fluoranthene	<0.0027	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	207-08-9	
Chrysene	0.0041J	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	218-01-9	
Dibenz(a,h)anthracene	<0.0028	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	53-70-3	
Fluoranthene	0.0095	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	206-44-0	
Fluorene	<0.0023	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.0029	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	193-39-5	
1-Methylnaphthalene	<0.0023	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	90-12-0	
2-Methylnaphthalene	<0.0054	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	91-57-6	
Naphthalene	<0.0053	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	91-20-3	
Phenanthrene	0.0045J	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	85-01-8	
Pyrene	0.0080	mg/kg	0.0057	1	06/14/24 15:10	06/17/24 17:30	129-00-0	
<b>Surrogates</b>								
2-Fluorobiphenyl (S)	65	%.	16-93	1	06/14/24 15:10	06/17/24 17:30	321-60-8	
p-Terphenyl-d14 (S)	75	%.	19-115	1	06/14/24 15:10	06/17/24 17:30	1718-51-0	
<b>8260 MSV 5035A VOA</b>								
Analytical Method: EPA 8260								
Pace Analytical Services - Indianapolis								
Acetone	0.031J	mg/kg	0.093	1		06/18/24 14:12	67-64-1	
Acrolein	<0.018	mg/kg	0.093	1		06/18/24 14:12	107-02-8	
Acrylonitrile	<0.0035	mg/kg	0.093	1		06/18/24 14:12	107-13-1	
Benzene	<0.00053	mg/kg	0.0047	1		06/18/24 14:12	71-43-2	
Bromobenzene	<0.00065	mg/kg	0.0047	1		06/18/24 14:12	108-86-1	
Bromochloromethane	<0.00074	mg/kg	0.0047	1		06/18/24 14:12	74-97-5	
Bromodichloromethane	<0.00058	mg/kg	0.0047	1		06/18/24 14:12	75-27-4	
Bromoform	<0.00062	mg/kg	0.0047	1		06/18/24 14:12	75-25-2	
Bromomethane	<0.00059	mg/kg	0.0047	1		06/18/24 14:12	74-83-9	
2-Butanone (MEK)	<0.011	mg/kg	0.023	1		06/18/24 14:12	78-93-3	
n-Butylbenzene	<0.00058	mg/kg	0.0047	1		06/18/24 14:12	104-51-8	
sec-Butylbenzene	<0.00058	mg/kg	0.0047	1		06/18/24 14:12	135-98-8	
tert-Butylbenzene	<0.00058	mg/kg	0.0047	1		06/18/24 14:12	98-06-6	
Carbon disulfide	0.00080J	mg/kg	0.0093	1		06/18/24 14:12	75-15-0	
Carbon tetrachloride	<0.0024	mg/kg	0.0047	1		06/18/24 14:12	56-23-5	
Chlorobenzene	<0.00062	mg/kg	0.0047	1		06/18/24 14:12	108-90-7	
Chloroethane	<0.00089	mg/kg	0.0047	1		06/18/24 14:12	75-00-3	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW2 18-20 Lab ID: 50375064004 Collected: 06/05/24 09:38 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Chloroform	<0.0022	mg/kg	0.0047	1		06/18/24 14:12	67-66-3	
Chloromethane	<0.00054	mg/kg	0.0047	1		06/18/24 14:12	74-87-3	
2-Chlorotoluene	<0.00064	mg/kg	0.0047	1		06/18/24 14:12	95-49-8	
4-Chlorotoluene	<0.00062	mg/kg	0.0047	1		06/18/24 14:12	106-43-4	
Dibromochloromethane	<0.00064	mg/kg	0.0047	1		06/18/24 14:12	124-48-1	
1,2-Dibromoethane (EDB)	<0.00064	mg/kg	0.0047	1		06/18/24 14:12	106-93-4	
Dibromomethane	<0.0012	mg/kg	0.0047	1		06/18/24 14:12	74-95-3	
1,2-Dichlorobenzene	<0.00063	mg/kg	0.0047	1		06/18/24 14:12	95-50-1	
1,3-Dichlorobenzene	<0.00063	mg/kg	0.0047	1		06/18/24 14:12	541-73-1	
1,4-Dichlorobenzene	<0.00060	mg/kg	0.0047	1		06/18/24 14:12	106-46-7	
trans-1,4-Dichloro-2-butene	<0.0012	mg/kg	0.093	1		06/18/24 14:12	110-57-6	
Dichlorodifluoromethane	<0.0024	mg/kg	0.0047	1		06/18/24 14:12	75-71-8	
1,1-Dichloroethane	<0.00056	mg/kg	0.0047	1		06/18/24 14:12	75-34-3	
1,2-Dichloroethane	<0.00096	mg/kg	0.0047	1		06/18/24 14:12	107-06-2	
1,1-Dichloroethene	<0.00071	mg/kg	0.0047	1		06/18/24 14:12	75-35-4	
cis-1,2-Dichloroethene	<0.00064	mg/kg	0.0047	1		06/18/24 14:12	156-59-2	
trans-1,2-Dichloroethene	<0.00062	mg/kg	0.0047	1		06/18/24 14:12	156-60-5	
1,2-Dichloropropane	<0.00066	mg/kg	0.0047	1		06/18/24 14:12	78-87-5	
1,3-Dichloropropane	<0.00065	mg/kg	0.0047	1		06/18/24 14:12	142-28-9	
2,2-Dichloropropane	<0.00060	mg/kg	0.0047	1		06/18/24 14:12	594-20-7	
1,1-Dichloropropene	<0.0014	mg/kg	0.0047	1		06/18/24 14:12	563-58-6	
cis-1,3-Dichloropropene	<0.00059	mg/kg	0.0047	1		06/18/24 14:12	10061-01-5	
trans-1,3-Dichloropropene	<0.0012	mg/kg	0.0047	1		06/18/24 14:12	10061-02-6	
Ethylbenzene	<0.00059	mg/kg	0.0047	1		06/18/24 14:12	100-41-4	
Ethyl methacrylate	<0.00062	mg/kg	0.093	1		06/18/24 14:12	97-63-2	
Hexachloro-1,3-butadiene	<0.00063	mg/kg	0.0047	1		06/18/24 14:12	87-68-3	
n-Hexane	<0.0033	mg/kg	0.0047	1		06/18/24 14:12	110-54-3	
2-Hexanone	<0.0088	mg/kg	0.093	1		06/18/24 14:12	591-78-6	L2
Iodomethane	<0.0027	mg/kg	0.093	1		06/18/24 14:12	74-88-4	
Isopropylbenzene (Cumene)	<0.0015	mg/kg	0.0047	1		06/18/24 14:12	98-82-8	
p-Isopropyltoluene	<0.00058	mg/kg	0.0047	1		06/18/24 14:12	99-87-6	
Methylene Chloride	<0.0083	mg/kg	0.019	1		06/18/24 14:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0035	mg/kg	0.023	1		06/18/24 14:12	108-10-1	
Methyl-tert-butyl ether	<0.00055	mg/kg	0.0047	1		06/18/24 14:12	1634-04-4	
Naphthalene	<0.00070	mg/kg	0.0047	1		06/18/24 14:12	91-20-3	
n-Propylbenzene	<0.00056	mg/kg	0.0047	1		06/18/24 14:12	103-65-1	
Styrene	<0.0034	mg/kg	0.0047	1		06/18/24 14:12	100-42-5	
1,1,1,2-Tetrachloroethane	<0.00064	mg/kg	0.0047	1		06/18/24 14:12	630-20-6	
1,1,2,2-Tetrachloroethane	<0.00070	mg/kg	0.0047	1		06/18/24 14:12	79-34-5	
Tetrachloroethene	<0.00058	mg/kg	0.0047	1		06/18/24 14:12	127-18-4	
Toluene	<0.0011	mg/kg	0.0047	1		06/18/24 14:12	108-88-3	
1,2,3-Trichlorobenzene	<0.00068	mg/kg	0.0047	1		06/18/24 14:12	87-61-6	
1,2,4-Trichlorobenzene	<0.00067	mg/kg	0.0047	1		06/18/24 14:12	120-82-1	
1,1,1-Trichloroethane	<0.00069	mg/kg	0.0047	1		06/18/24 14:12	71-55-6	
1,1,2-Trichloroethane	<0.00069	mg/kg	0.0047	1		06/18/24 14:12	79-00-5	

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**ANALYTICAL RESULTS**

Project: Jasper WWTP

Pace Project No.: 50375064

**Sample: MW2 18-20**      **Lab ID: 50375064004**      Collected: 06/05/24 09:38      Received: 06/06/24 09:15      Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Trichloroethene	<0.00065	mg/kg	0.0047	1		06/18/24 14:12	79-01-6	
Trichlorofluoromethane	<0.0026	mg/kg	0.0047	1		06/18/24 14:12	75-69-4	
1,2,3-Trichloropropane	<0.0013	mg/kg	0.0047	1		06/18/24 14:12	96-18-4	
1,2,4-Trimethylbenzene	<0.00061	mg/kg	0.0047	1		06/18/24 14:12	95-63-6	
1,3,5-Trimethylbenzene	<0.0031	mg/kg	0.0047	1		06/18/24 14:12	108-67-8	
Vinyl acetate	<0.0018	mg/kg	0.093	1		06/18/24 14:12	108-05-4	
Vinyl chloride	<0.00051	mg/kg	0.0047	1		06/18/24 14:12	75-01-4	
Xylene (Total)	<0.0012	mg/kg	0.0093	1		06/18/24 14:12	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	107	%	75-135	1		06/18/24 14:12	1868-53-7	
Toluene-d8 (S)	96	%	65-148	1		06/18/24 14:12	2037-26-5	
4-Bromofluorobenzene (S)	98	%	63-132	1		06/18/24 14:12	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	17.9	%	0.10	1		06/14/24 15:48		N2

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW3 12-14 Lab ID: 50375064005 Collected: 06/05/24 10:24 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Pace Analytical Services - Indianapolis								
Lead	7.9	mg/kg	1.2	1	06/17/24 09:01	06/18/24 01:46	7439-92-1	
<b>8270 PAH Soil by SIM</b>								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Pace Analytical Services - Indianapolis								
Acenaphthene	<0.0024	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	83-32-9	
Acenaphthylene	<0.0022	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	208-96-8	
Anthracene	<0.0030	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	120-12-7	
Benzo(a)anthracene	<0.0017	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	56-55-3	
Benzo(a)pyrene	<0.0035	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	50-32-8	
Benzo(b)fluoranthene	<0.0032	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	205-99-2	
Benzo(g,h,i)perylene	<0.0035	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	191-24-2	
Benzo(k)fluoranthene	<0.0027	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	207-08-9	
Chrysene	<0.0041	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	218-01-9	
Dibenz(a,h)anthracene	<0.0029	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	53-70-3	
Fluoranthene	<0.0041	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	206-44-0	
Fluorene	<0.0023	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.0030	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	193-39-5	
1-Methylnaphthalene	<0.0024	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	90-12-0	
2-Methylnaphthalene	<0.0055	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	91-57-6	
Naphthalene	<0.0054	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	91-20-3	
Phenanthrene	<0.0042	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	85-01-8	
Pyrene	<0.0040	mg/kg	0.0059	1	06/14/24 22:02	06/17/24 17:10	129-00-0	
<b>Surrogates</b>								
2-Fluorobiphenyl (S)	58	%	16-93	1	06/14/24 22:02	06/17/24 17:10	321-60-8	
p-Terphenyl-d14 (S)	54	%	19-115	1	06/14/24 22:02	06/17/24 17:10	1718-51-0	
<b>8260 MSV 5035A VOA</b>								
Analytical Method: EPA 8260								
Pace Analytical Services - Indianapolis								
Acetone	0.23	mg/kg	0.11	1		06/18/24 14:41	67-64-1	
Acrolein	<0.021	mg/kg	0.11	1		06/18/24 14:41	107-02-8	
Acrylonitrile	<0.0041	mg/kg	0.11	1		06/18/24 14:41	107-13-1	
Benzene	<0.00063	mg/kg	0.0055	1		06/18/24 14:41	71-43-2	
Bromobenzene	<0.00077	mg/kg	0.0055	1		06/18/24 14:41	108-86-1	
Bromochloromethane	<0.00086	mg/kg	0.0055	1		06/18/24 14:41	74-97-5	
Bromodichloromethane	<0.00069	mg/kg	0.0055	1		06/18/24 14:41	75-27-4	
Bromoform	<0.00073	mg/kg	0.0055	1		06/18/24 14:41	75-25-2	
Bromomethane	<0.00069	mg/kg	0.0055	1		06/18/24 14:41	74-83-9	
2-Butanone (MEK)	0.050	mg/kg	0.027	1		06/18/24 14:41	78-93-3	
n-Butylbenzene	<0.00068	mg/kg	0.0055	1		06/18/24 14:41	104-51-8	
sec-Butylbenzene	<0.00069	mg/kg	0.0055	1		06/18/24 14:41	135-98-8	
tert-Butylbenzene	<0.00069	mg/kg	0.0055	1		06/18/24 14:41	98-06-6	
Carbon disulfide	0.0024J	mg/kg	0.011	1		06/18/24 14:41	75-15-0	
Carbon tetrachloride	<0.0028	mg/kg	0.0055	1		06/18/24 14:41	56-23-5	
Chlorobenzene	0.023	mg/kg	0.0055	1		06/18/24 14:41	108-90-7	
Chloroethane	<0.0011	mg/kg	0.0055	1		06/18/24 14:41	75-00-3	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW3 12-14 Lab ID: 50375064005 Collected: 06/05/24 10:24 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Chloroform	<0.0026	mg/kg	0.0055	1		06/18/24 14:41	67-66-3	
Chloromethane	<0.00064	mg/kg	0.0055	1		06/18/24 14:41	74-87-3	
2-Chlorotoluene	<0.00075	mg/kg	0.0055	1		06/18/24 14:41	95-49-8	
4-Chlorotoluene	<0.00073	mg/kg	0.0055	1		06/18/24 14:41	106-43-4	
Dibromochloromethane	<0.00076	mg/kg	0.0055	1		06/18/24 14:41	124-48-1	
1,2-Dibromoethane (EDB)	<0.00076	mg/kg	0.0055	1		06/18/24 14:41	106-93-4	
Dibromomethane	<0.0014	mg/kg	0.0055	1		06/18/24 14:41	74-95-3	
1,2-Dichlorobenzene	<0.00074	mg/kg	0.0055	1		06/18/24 14:41	95-50-1	
1,3-Dichlorobenzene	0.0018J	mg/kg	0.0055	1		06/18/24 14:41	541-73-1	
1,4-Dichlorobenzene	0.011	mg/kg	0.0055	1		06/18/24 14:41	106-46-7	
trans-1,4-Dichloro-2-butene	<0.0014	mg/kg	0.11	1		06/18/24 14:41	110-57-6	
Dichlorodifluoromethane	<0.0028	mg/kg	0.0055	1		06/18/24 14:41	75-71-8	
1,1-Dichloroethane	<0.00066	mg/kg	0.0055	1		06/18/24 14:41	75-34-3	
1,2-Dichloroethane	<0.0011	mg/kg	0.0055	1		06/18/24 14:41	107-06-2	
1,1-Dichloroethene	<0.00084	mg/kg	0.0055	1		06/18/24 14:41	75-35-4	
cis-1,2-Dichloroethene	<0.00075	mg/kg	0.0055	1		06/18/24 14:41	156-59-2	
trans-1,2-Dichloroethene	<0.00073	mg/kg	0.0055	1		06/18/24 14:41	156-60-5	
1,2-Dichloropropane	<0.00078	mg/kg	0.0055	1		06/18/24 14:41	78-87-5	
1,3-Dichloropropane	<0.00077	mg/kg	0.0055	1		06/18/24 14:41	142-28-9	
2,2-Dichloropropane	<0.00070	mg/kg	0.0055	1		06/18/24 14:41	594-20-7	
1,1-Dichloropropene	<0.0016	mg/kg	0.0055	1		06/18/24 14:41	563-58-6	
cis-1,3-Dichloropropene	<0.00069	mg/kg	0.0055	1		06/18/24 14:41	10061-01-5	
trans-1,3-Dichloropropene	<0.0014	mg/kg	0.0055	1		06/18/24 14:41	10061-02-6	
Ethylbenzene	<0.00070	mg/kg	0.0055	1		06/18/24 14:41	100-41-4	
Ethyl methacrylate	<0.00073	mg/kg	0.11	1		06/18/24 14:41	97-63-2	
Hexachloro-1,3-butadiene	<0.00075	mg/kg	0.0055	1		06/18/24 14:41	87-68-3	
n-Hexane	<0.0039	mg/kg	0.0055	1		06/18/24 14:41	110-54-3	
2-Hexanone	<0.010	mg/kg	0.11	1		06/18/24 14:41	591-78-6	L2
Iodomethane	<0.0031	mg/kg	0.11	1		06/18/24 14:41	74-88-4	
Isopropylbenzene (Cumene)	<0.0018	mg/kg	0.0055	1		06/18/24 14:41	98-82-8	
p-Isopropyltoluene	<0.00068	mg/kg	0.0055	1		06/18/24 14:41	99-87-6	
Methylene Chloride	<0.0097	mg/kg	0.022	1		06/18/24 14:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0041	mg/kg	0.027	1		06/18/24 14:41	108-10-1	
Methyl-tert-butyl ether	<0.00064	mg/kg	0.0055	1		06/18/24 14:41	1634-04-4	
Naphthalene	<0.00083	mg/kg	0.0055	1		06/18/24 14:41	91-20-3	
n-Propylbenzene	<0.00066	mg/kg	0.0055	1		06/18/24 14:41	103-65-1	
Styrene	<0.0039	mg/kg	0.0055	1		06/18/24 14:41	100-42-5	
1,1,1,2-Tetrachloroethane	<0.00075	mg/kg	0.0055	1		06/18/24 14:41	630-20-6	
1,1,2,2-Tetrachloroethane	<0.00082	mg/kg	0.0055	1		06/18/24 14:41	79-34-5	
Tetrachloroethene	<0.00068	mg/kg	0.0055	1		06/18/24 14:41	127-18-4	
Toluene	<0.0013	mg/kg	0.0055	1		06/18/24 14:41	108-88-3	
1,2,3-Trichlorobenzene	<0.00080	mg/kg	0.0055	1		06/18/24 14:41	87-61-6	
1,2,4-Trichlorobenzene	<0.00079	mg/kg	0.0055	1		06/18/24 14:41	120-82-1	
1,1,1-Trichloroethane	<0.00081	mg/kg	0.0055	1		06/18/24 14:41	71-55-6	
1,1,2-Trichloroethane	<0.00081	mg/kg	0.0055	1		06/18/24 14:41	79-00-5	

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### ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

**Sample: MW3 12-14**      **Lab ID: 50375064005**      Collected: 06/05/24 10:24      Received: 06/06/24 09:15      Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Trichloroethene	<0.00077	mg/kg	0.0055	1		06/18/24 14:41	79-01-6	
Trichlorofluoromethane	<0.0031	mg/kg	0.0055	1		06/18/24 14:41	75-69-4	
1,2,3-Trichloropropane	<0.0015	mg/kg	0.0055	1		06/18/24 14:41	96-18-4	
1,2,4-Trimethylbenzene	<0.00072	mg/kg	0.0055	1		06/18/24 14:41	95-63-6	
1,3,5-Trimethylbenzene	<0.0036	mg/kg	0.0055	1		06/18/24 14:41	108-67-8	
Vinyl acetate	<0.0021	mg/kg	0.11	1		06/18/24 14:41	108-05-4	
Vinyl chloride	<0.00060	mg/kg	0.0055	1		06/18/24 14:41	75-01-4	
Xylene (Total)	<0.0014	mg/kg	0.011	1		06/18/24 14:41	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	110	%	75-135	1		06/18/24 14:41	1868-53-7	
Toluene-d8 (S)	96	%	65-148	1		06/18/24 14:41	2037-26-5	
4-Bromofluorobenzene (S)	95	%	63-132	1		06/18/24 14:41	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	<b>19.0</b>	%	0.10	1		06/14/24 15:48		N2

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW3 18-20 Lab ID: 50375064006 Collected: 06/05/24 10:26 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Indianapolis						
Lead	5.6	mg/kg	1.1	1	06/17/24 09:01	06/18/24 01:48	7439-92-1	
<b>8270 PAH Soil by SIM</b>		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Indianapolis						
Acenaphthene	<0.0025	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	83-32-9	
Acenaphthylene	<0.0023	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	208-96-8	
Anthracene	<0.0031	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	120-12-7	
Benzo(a)anthracene	<0.0017	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	56-55-3	
Benzo(a)pyrene	<0.0037	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	50-32-8	
Benzo(b)fluoranthene	<0.0034	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	205-99-2	
Benzo(g,h,i)perylene	<0.0036	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	191-24-2	
Benzo(k)fluoranthene	<0.0028	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	207-08-9	
Chrysene	<0.0042	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	218-01-9	
Dibenz(a,h)anthracene	<0.0030	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	53-70-3	
Fluoranthene	<0.0043	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	206-44-0	
Fluorene	<0.0024	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.0031	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	193-39-5	
1-Methylnaphthalene	<0.0025	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	90-12-0	
2-Methylnaphthalene	<0.0058	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	91-57-6	
Naphthalene	<0.0056	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	91-20-3	
Phenanthrene	<0.0044	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	85-01-8	
Pyrene	<0.0042	mg/kg	0.0061	1	06/15/24 10:40	06/17/24 23:36	129-00-0	
<b>Surrogates</b>								
2-Fluorobiphenyl (S)	66	%	16-93	1	06/15/24 10:40	06/17/24 23:36	321-60-8	
p-Terphenyl-d14 (S)	79	%	19-115	1	06/15/24 10:40	06/17/24 23:36	1718-51-0	
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Acetone	0.026J	mg/kg	0.10	1		06/18/24 15:11	67-64-1	
Acrolein	<0.019	mg/kg	0.10	1		06/18/24 15:11	107-02-8	
Acrylonitrile	<0.0037	mg/kg	0.10	1		06/18/24 15:11	107-13-1	
Benzene	<0.00057	mg/kg	0.0050	1		06/18/24 15:11	71-43-2	
Bromobenzene	<0.00070	mg/kg	0.0050	1		06/18/24 15:11	108-86-1	
Bromochloromethane	<0.00079	mg/kg	0.0050	1		06/18/24 15:11	74-97-5	
Bromodichloromethane	<0.00062	mg/kg	0.0050	1		06/18/24 15:11	75-27-4	
Bromoform	<0.00066	mg/kg	0.0050	1		06/18/24 15:11	75-25-2	
Bromomethane	<0.00063	mg/kg	0.0050	1		06/18/24 15:11	74-83-9	
2-Butanone (MEK)	<0.012	mg/kg	0.025	1		06/18/24 15:11	78-93-3	
n-Butylbenzene	<0.00062	mg/kg	0.0050	1		06/18/24 15:11	104-51-8	
sec-Butylbenzene	<0.00062	mg/kg	0.0050	1		06/18/24 15:11	135-98-8	
tert-Butylbenzene	<0.00062	mg/kg	0.0050	1		06/18/24 15:11	98-06-6	
Carbon disulfide	0.00081J	mg/kg	0.010	1		06/18/24 15:11	75-15-0	
Carbon tetrachloride	<0.0025	mg/kg	0.0050	1		06/18/24 15:11	56-23-5	
Chlorobenzene	<0.00066	mg/kg	0.0050	1		06/18/24 15:11	108-90-7	
Chloroethane	<0.00095	mg/kg	0.0050	1		06/18/24 15:11	75-00-3	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW3 18-20 Lab ID: 50375064006 Collected: 06/05/24 10:26 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Chloroform	<0.0023	mg/kg	0.0050	1		06/18/24 15:11	67-66-3	
Chloromethane	<0.00058	mg/kg	0.0050	1		06/18/24 15:11	74-87-3	
2-Chlorotoluene	<0.00068	mg/kg	0.0050	1		06/18/24 15:11	95-49-8	
4-Chlorotoluene	<0.00066	mg/kg	0.0050	1		06/18/24 15:11	106-43-4	
Dibromochloromethane	<0.00069	mg/kg	0.0050	1		06/18/24 15:11	124-48-1	
1,2-Dibromoethane (EDB)	<0.00069	mg/kg	0.0050	1		06/18/24 15:11	106-93-4	
Dibromomethane	<0.0013	mg/kg	0.0050	1		06/18/24 15:11	74-95-3	
1,2-Dichlorobenzene	<0.00067	mg/kg	0.0050	1		06/18/24 15:11	95-50-1	
1,3-Dichlorobenzene	<0.00067	mg/kg	0.0050	1		06/18/24 15:11	541-73-1	
1,4-Dichlorobenzene	<0.00065	mg/kg	0.0050	1		06/18/24 15:11	106-46-7	
trans-1,4-Dichloro-2-butene	<0.0013	mg/kg	0.10	1		06/18/24 15:11	110-57-6	
Dichlorodifluoromethane	<0.0026	mg/kg	0.0050	1		06/18/24 15:11	75-71-8	
1,1-Dichloroethane	<0.00060	mg/kg	0.0050	1		06/18/24 15:11	75-34-3	
1,2-Dichloroethane	<0.0010	mg/kg	0.0050	1		06/18/24 15:11	107-06-2	
1,1-Dichloroethene	<0.00076	mg/kg	0.0050	1		06/18/24 15:11	75-35-4	
cis-1,2-Dichloroethene	<0.00068	mg/kg	0.0050	1		06/18/24 15:11	156-59-2	
trans-1,2-Dichloroethene	<0.00066	mg/kg	0.0050	1		06/18/24 15:11	156-60-5	
1,2-Dichloropropane	<0.00070	mg/kg	0.0050	1		06/18/24 15:11	78-87-5	
1,3-Dichloropropane	<0.00070	mg/kg	0.0050	1		06/18/24 15:11	142-28-9	
2,2-Dichloropropane	<0.00064	mg/kg	0.0050	1		06/18/24 15:11	594-20-7	
1,1-Dichloropropene	<0.0015	mg/kg	0.0050	1		06/18/24 15:11	563-58-6	
cis-1,3-Dichloropropene	<0.00063	mg/kg	0.0050	1		06/18/24 15:11	10061-01-5	
trans-1,3-Dichloropropene	<0.0013	mg/kg	0.0050	1		06/18/24 15:11	10061-02-6	
Ethylbenzene	<0.00064	mg/kg	0.0050	1		06/18/24 15:11	100-41-4	
Ethyl methacrylate	<0.00066	mg/kg	0.10	1		06/18/24 15:11	97-63-2	
Hexachloro-1,3-butadiene	<0.00068	mg/kg	0.0050	1		06/18/24 15:11	87-68-3	
n-Hexane	<0.0035	mg/kg	0.0050	1		06/18/24 15:11	110-54-3	
2-Hexanone	<0.0093	mg/kg	0.10	1		06/18/24 15:11	591-78-6	L2
Iodomethane	<0.0028	mg/kg	0.10	1		06/18/24 15:11	74-88-4	
Isopropylbenzene (Cumene)	<0.0016	mg/kg	0.0050	1		06/18/24 15:11	98-82-8	
p-Isopropyltoluene	<0.00062	mg/kg	0.0050	1		06/18/24 15:11	99-87-6	
Methylene Chloride	<0.0088	mg/kg	0.020	1		06/18/24 15:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0037	mg/kg	0.025	1		06/18/24 15:11	108-10-1	
Methyl-tert-butyl ether	<0.00059	mg/kg	0.0050	1		06/18/24 15:11	1634-04-4	
Naphthalene	<0.00075	mg/kg	0.0050	1		06/18/24 15:11	91-20-3	
n-Propylbenzene	<0.00060	mg/kg	0.0050	1		06/18/24 15:11	103-65-1	
Styrene	<0.0036	mg/kg	0.0050	1		06/18/24 15:11	100-42-5	
1,1,1,2-Tetrachloroethane	<0.00068	mg/kg	0.0050	1		06/18/24 15:11	630-20-6	
1,1,2,2-Tetrachloroethane	<0.00075	mg/kg	0.0050	1		06/18/24 15:11	79-34-5	
Tetrachloroethene	<0.00062	mg/kg	0.0050	1		06/18/24 15:11	127-18-4	
Toluene	<0.0012	mg/kg	0.0050	1		06/18/24 15:11	108-88-3	
1,2,3-Trichlorobenzene	<0.00072	mg/kg	0.0050	1		06/18/24 15:11	87-61-6	
1,2,4-Trichlorobenzene	<0.00072	mg/kg	0.0050	1		06/18/24 15:11	120-82-1	
1,1,1-Trichloroethane	<0.00073	mg/kg	0.0050	1		06/18/24 15:11	71-55-6	
1,1,2-Trichloroethane	<0.00074	mg/kg	0.0050	1		06/18/24 15:11	79-00-5	

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### ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: MW3 18-20 Lab ID: 50375064006 Collected: 06/05/24 10:26 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Trichloroethene	<0.00070	mg/kg	0.0050	1		06/18/24 15:11	79-01-6	
Trichlorofluoromethane	<0.0028	mg/kg	0.0050	1		06/18/24 15:11	75-69-4	
1,2,3-Trichloropropane	<0.0014	mg/kg	0.0050	1		06/18/24 15:11	96-18-4	
1,2,4-Trimethylbenzene	<0.00066	mg/kg	0.0050	1		06/18/24 15:11	95-63-6	
1,3,5-Trimethylbenzene	<0.0033	mg/kg	0.0050	1		06/18/24 15:11	108-67-8	
Vinyl acetate	<0.0019	mg/kg	0.10	1		06/18/24 15:11	108-05-4	
Vinyl chloride	<0.00054	mg/kg	0.0050	1		06/18/24 15:11	75-01-4	
Xylene (Total)	<0.0013	mg/kg	0.010	1		06/18/24 15:11	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	109	%	75-135	1		06/18/24 15:11	1868-53-7	
Toluene-d8 (S)	95	%	65-148	1		06/18/24 15:11	2037-26-5	
4-Bromofluorobenzene (S)	98	%	63-132	1		06/18/24 15:11	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	18.4	%	0.10	1		06/14/24 15:48		N2

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: DUP Lab ID: 50375064007 Collected: 06/05/24 08:00 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Pace Analytical Services - Indianapolis								
Lead	6.7	mg/kg	1.1	1	06/17/24 09:01	06/18/24 01:50	7439-92-1	
<b>8270 PAH Soil by SIM</b>								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Pace Analytical Services - Indianapolis								
Acenaphthene	<0.0023	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	83-32-9	
Acenaphthylene	<0.0022	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	208-96-8	
Anthracene	<0.0029	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	120-12-7	
Benzo(a)anthracene	<0.0017	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	56-55-3	
Benzo(a)pyrene	<0.0035	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	50-32-8	
Benzo(b)fluoranthene	<0.0032	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	205-99-2	
Benzo(g,h,i)perylene	<0.0035	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	191-24-2	
Benzo(k)fluoranthene	<0.0027	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	207-08-9	
Chrysene	<0.0040	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	218-01-9	
Dibenz(a,h)anthracene	<0.0029	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	53-70-3	
Fluoranthene	<0.0041	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	206-44-0	
Fluorene	<0.0023	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.0030	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	193-39-5	
1-Methylnaphthalene	<0.0023	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	90-12-0	
2-Methylnaphthalene	<0.0055	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	91-57-6	
Naphthalene	<0.0054	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	91-20-3	
Phenanthrene	<0.0042	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	85-01-8	
Pyrene	<0.0040	mg/kg	0.0058	1	06/15/24 10:40	06/17/24 23:50	129-00-0	
<b>Surrogates</b>								
2-Fluorobiphenyl (S)	68	%	16-93	1	06/15/24 10:40	06/17/24 23:50	321-60-8	
p-Terphenyl-d14 (S)	83	%	19-115	1	06/15/24 10:40	06/17/24 23:50	1718-51-0	
<b>8260 MSV 5035A VOA</b>								
Analytical Method: EPA 8260								
Pace Analytical Services - Indianapolis								
Acetone	0.029J	mg/kg	0.10	1		06/18/24 15:41	67-64-1	
Acrolein	<0.019	mg/kg	0.10	1		06/18/24 15:41	107-02-8	
Acrylonitrile	<0.0038	mg/kg	0.10	1		06/18/24 15:41	107-13-1	
Benzene	<0.00059	mg/kg	0.0051	1		06/18/24 15:41	71-43-2	
Bromobenzene	<0.00071	mg/kg	0.0051	1		06/18/24 15:41	108-86-1	
Bromochloromethane	<0.00081	mg/kg	0.0051	1		06/18/24 15:41	74-97-5	
Bromodichloromethane	<0.00064	mg/kg	0.0051	1		06/18/24 15:41	75-27-4	
Bromoform	<0.00068	mg/kg	0.0051	1		06/18/24 15:41	75-25-2	
Bromomethane	<0.00065	mg/kg	0.0051	1		06/18/24 15:41	74-83-9	
2-Butanone (MEK)	<0.013	mg/kg	0.026	1		06/18/24 15:41	78-93-3	
n-Butylbenzene	<0.00064	mg/kg	0.0051	1		06/18/24 15:41	104-51-8	
sec-Butylbenzene	<0.00064	mg/kg	0.0051	1		06/18/24 15:41	135-98-8	
tert-Butylbenzene	<0.00064	mg/kg	0.0051	1		06/18/24 15:41	98-06-6	
Carbon disulfide	0.0010J	mg/kg	0.010	1		06/18/24 15:41	75-15-0	
Carbon tetrachloride	<0.0026	mg/kg	0.0051	1		06/18/24 15:41	56-23-5	
Chlorobenzene	<0.00068	mg/kg	0.0051	1		06/18/24 15:41	108-90-7	
Chloroethane	<0.00098	mg/kg	0.0051	1		06/18/24 15:41	75-00-3	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: DUP Lab ID: 50375064007 Collected: 06/05/24 08:00 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Chloroform	<0.0024	mg/kg	0.0051	1		06/18/24 15:41	67-66-3	
Chloromethane	<0.00059	mg/kg	0.0051	1		06/18/24 15:41	74-87-3	
2-Chlorotoluene	<0.00070	mg/kg	0.0051	1		06/18/24 15:41	95-49-8	
4-Chlorotoluene	<0.00068	mg/kg	0.0051	1		06/18/24 15:41	106-43-4	
Dibromochloromethane	<0.00071	mg/kg	0.0051	1		06/18/24 15:41	124-48-1	
1,2-Dibromoethane (EDB)	<0.00071	mg/kg	0.0051	1		06/18/24 15:41	106-93-4	
Dibromomethane	<0.0013	mg/kg	0.0051	1		06/18/24 15:41	74-95-3	
1,2-Dichlorobenzene	<0.00069	mg/kg	0.0051	1		06/18/24 15:41	95-50-1	
1,3-Dichlorobenzene	<0.00069	mg/kg	0.0051	1		06/18/24 15:41	541-73-1	
1,4-Dichlorobenzene	<0.00066	mg/kg	0.0051	1		06/18/24 15:41	106-46-7	
trans-1,4-Dichloro-2-butene	<0.0013	mg/kg	0.10	1		06/18/24 15:41	110-57-6	
Dichlorodifluoromethane	<0.0027	mg/kg	0.0051	1		06/18/24 15:41	75-71-8	
1,1-Dichloroethane	<0.00062	mg/kg	0.0051	1		06/18/24 15:41	75-34-3	
1,2-Dichloroethane	<0.0011	mg/kg	0.0051	1		06/18/24 15:41	107-06-2	
1,1-Dichloroethene	<0.00078	mg/kg	0.0051	1		06/18/24 15:41	75-35-4	
cis-1,2-Dichloroethene	<0.00070	mg/kg	0.0051	1		06/18/24 15:41	156-59-2	
trans-1,2-Dichloroethene	<0.00068	mg/kg	0.0051	1		06/18/24 15:41	156-60-5	
1,2-Dichloropropane	<0.00072	mg/kg	0.0051	1		06/18/24 15:41	78-87-5	
1,3-Dichloropropane	<0.00072	mg/kg	0.0051	1		06/18/24 15:41	142-28-9	
2,2-Dichloropropane	<0.00066	mg/kg	0.0051	1		06/18/24 15:41	594-20-7	
1,1-Dichloropropene	<0.0015	mg/kg	0.0051	1		06/18/24 15:41	563-58-6	
cis-1,3-Dichloropropene	<0.00064	mg/kg	0.0051	1		06/18/24 15:41	10061-01-5	
trans-1,3-Dichloropropene	<0.0013	mg/kg	0.0051	1		06/18/24 15:41	10061-02-6	
Ethylbenzene	<0.00065	mg/kg	0.0051	1		06/18/24 15:41	100-41-4	
Ethyl methacrylate	<0.00068	mg/kg	0.10	1		06/18/24 15:41	97-63-2	
Hexachloro-1,3-butadiene	<0.00070	mg/kg	0.0051	1		06/18/24 15:41	87-68-3	
n-Hexane	<0.0036	mg/kg	0.0051	1		06/18/24 15:41	110-54-3	
2-Hexanone	<0.0096	mg/kg	0.10	1		06/18/24 15:41	591-78-6	L2
Iodomethane	<0.0029	mg/kg	0.10	1		06/18/24 15:41	74-88-4	
Isopropylbenzene (Cumene)	<0.0017	mg/kg	0.0051	1		06/18/24 15:41	98-82-8	
p-Isopropyltoluene	<0.00064	mg/kg	0.0051	1		06/18/24 15:41	99-87-6	
Methylene Chloride	<0.0091	mg/kg	0.020	1		06/18/24 15:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.0038	mg/kg	0.026	1		06/18/24 15:41	108-10-1	
Methyl-tert-butyl ether	<0.00060	mg/kg	0.0051	1		06/18/24 15:41	1634-04-4	
Naphthalene	<0.00077	mg/kg	0.0051	1		06/18/24 15:41	91-20-3	
n-Propylbenzene	<0.00062	mg/kg	0.0051	1		06/18/24 15:41	103-65-1	
Styrene	<0.0037	mg/kg	0.0051	1		06/18/24 15:41	100-42-5	
1,1,1,2-Tetrachloroethane	<0.00070	mg/kg	0.0051	1		06/18/24 15:41	630-20-6	
1,1,2,2-Tetrachloroethane	<0.00077	mg/kg	0.0051	1		06/18/24 15:41	79-34-5	
Tetrachloroethene	<0.00064	mg/kg	0.0051	1		06/18/24 15:41	127-18-4	
Toluene	<0.0012	mg/kg	0.0051	1		06/18/24 15:41	108-88-3	
1,2,3-Trichlorobenzene	<0.00074	mg/kg	0.0051	1		06/18/24 15:41	87-61-6	
1,2,4-Trichlorobenzene	<0.00074	mg/kg	0.0051	1		06/18/24 15:41	120-82-1	
1,1,1-Trichloroethane	<0.00075	mg/kg	0.0051	1		06/18/24 15:41	71-55-6	
1,1,2-Trichloroethane	<0.00076	mg/kg	0.0051	1		06/18/24 15:41	79-00-5	

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### ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375064

Sample: DUP Lab ID: 50375064007 Collected: 06/05/24 08:00 Received: 06/06/24 09:15 Matrix: Solid

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

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV 5035A VOA</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
Trichloroethene	<0.00071	mg/kg	0.0051	1		06/18/24 15:41	79-01-6	
Trichlorofluoromethane	<0.0029	mg/kg	0.0051	1		06/18/24 15:41	75-69-4	
1,2,3-Trichloropropane	<0.0014	mg/kg	0.0051	1		06/18/24 15:41	96-18-4	
1,2,4-Trimethylbenzene	<0.00067	mg/kg	0.0051	1		06/18/24 15:41	95-63-6	
1,3,5-Trimethylbenzene	<0.0034	mg/kg	0.0051	1		06/18/24 15:41	108-67-8	
Vinyl acetate	<0.0020	mg/kg	0.10	1		06/18/24 15:41	108-05-4	
Vinyl chloride	<0.00056	mg/kg	0.0051	1		06/18/24 15:41	75-01-4	
Xylene (Total)	<0.0013	mg/kg	0.010	1		06/18/24 15:41	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	109	%	75-135	1		06/18/24 15:41	1868-53-7	
Toluene-d8 (S)	96	%	65-148	1		06/18/24 15:41	2037-26-5	
4-Bromofluorobenzene (S)	98	%	63-132	1		06/18/24 15:41	460-00-4	
<b>Percent Moisture</b>		Analytical Method: SM 2540G Pace Analytical Services - Indianapolis						
Percent Moisture	18.2	%	0.10	1		06/14/24 15:48		N2

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**QUALITY CONTROL DATA**

Project: Jasper WWTP

Pace Project No.: 50375064

QC Batch:	795934	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375064001, 50375064002, 50375064003, 50375064004, 50375064005, 50375064006, 50375064007

METHOD BLANK: 3642328 Matrix: Solid

Associated Lab Samples: 50375064001, 50375064002, 50375064003, 50375064004, 50375064005, 50375064006, 50375064007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	<0.13	1.0	06/18/24 01:21	

LABORATORY CONTROL SAMPLE: 3642329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	50	50.6	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3642330 3642331

Parameter	Units	50375064002		3642331		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Lead	mg/kg	6.9	49	50.9	51.4	54.4	91	93	75-125	6	20

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**REPORT OF LABORATORY ANALYSIS**

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## QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375064

QC Batch: 796149

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375064001, 50375064003

METHOD BLANK: 3643114

Matrix: Solid

Associated Lab Samples: 50375064001, 50375064003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	<0.00067	0.0050	06/17/24 12:59	
1,1,1-Trichloroethane	mg/kg	<0.00046	0.0050	06/17/24 12:59	
1,1,2,2-Tetrachloroethane	mg/kg	<0.00053	0.0050	06/17/24 12:59	
1,1,2-Trichloroethane	mg/kg	<0.00062	0.0050	06/17/24 12:59	
1,1-Dichloroethane	mg/kg	<0.00041	0.0050	06/17/24 12:59	
1,1-Dichloroethene	mg/kg	<0.00060	0.0050	06/17/24 12:59	
1,1-Dichloropropene	mg/kg	<0.00046	0.0050	06/17/24 12:59	
1,2,3-Trichlorobenzene	mg/kg	<0.00076	0.0050	06/17/24 12:59	
1,2,3-Trichloropropane	mg/kg	<0.00054	0.0050	06/17/24 12:59	
1,2,4-Trichlorobenzene	mg/kg	<0.00075	0.0050	06/17/24 12:59	
1,2,4-Trimethylbenzene	mg/kg	<0.00060	0.0050	06/17/24 12:59	
1,2-Dibromoethane (EDB)	mg/kg	<0.00055	0.0050	06/17/24 12:59	
1,2-Dichlorobenzene	mg/kg	<0.00077	0.0050	06/17/24 12:59	
1,2-Dichloroethane	mg/kg	<0.00046	0.0050	06/17/24 12:59	
1,2-Dichloropropane	mg/kg	<0.00052	0.0050	06/17/24 12:59	
1,3,5-Trimethylbenzene	mg/kg	<0.00056	0.0050	06/17/24 12:59	
1,3-Dichlorobenzene	mg/kg	<0.00075	0.0050	06/17/24 12:59	
1,3-Dichloropropane	mg/kg	<0.00053	0.0050	06/17/24 12:59	
1,4-Dichlorobenzene	mg/kg	<0.00075	0.0050	06/17/24 12:59	
2,2-Dichloropropane	mg/kg	<0.00044	0.0050	06/17/24 12:59	
2-Butanone (MEK)	mg/kg	<0.0030	0.025	06/17/24 12:59	
2-Chlorotoluene	mg/kg	<0.00060	0.0050	06/17/24 12:59	
2-Hexanone	mg/kg	<0.0026	0.10	06/17/24 12:59	
4-Chlorotoluene	mg/kg	<0.00064	0.0050	06/17/24 12:59	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0024	0.025	06/17/24 12:59	
Acetone	mg/kg	<0.0071	0.10	06/17/24 12:59	
Acrolein	mg/kg	<0.016	0.10	06/17/24 12:59	
Acrylonitrile	mg/kg	<0.0024	0.10	06/17/24 12:59	
Benzene	mg/kg	<0.00056	0.0050	06/17/24 12:59	
Bromobenzene	mg/kg	<0.00069	0.0050	06/17/24 12:59	
Bromochloromethane	mg/kg	<0.00050	0.0050	06/17/24 12:59	
Bromodichloromethane	mg/kg	<0.00056	0.0050	06/17/24 12:59	
Bromoform	mg/kg	<0.00056	0.0050	06/17/24 12:59	
Bromomethane	mg/kg	<0.0016	0.0050	06/17/24 12:59	
Carbon disulfide	mg/kg	<0.00055	0.010	06/17/24 12:59	
Carbon tetrachloride	mg/kg	<0.0015	0.0050	06/17/24 12:59	
Chlorobenzene	mg/kg	<0.00061	0.0050	06/17/24 12:59	
Chloroethane	mg/kg	<0.0010	0.0050	06/17/24 12:59	
Chloroform	mg/kg	<0.00064	0.0050	06/17/24 12:59	
Chloromethane	mg/kg	<0.00052	0.0050	06/17/24 12:59	

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**QUALITY CONTROL DATA**

Project: Jasper WWTP  
Pace Project No.: 50375064

METHOD BLANK: 3643114 Matrix: Solid  
Associated Lab Samples: 50375064001, 50375064003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	mg/kg	<0.00050	0.0050	06/17/24 12:59	
cis-1,3-Dichloropropene	mg/kg	<0.00051	0.0050	06/17/24 12:59	
Dibromochloromethane	mg/kg	<0.00062	0.0050	06/17/24 12:59	
Dibromomethane	mg/kg	<0.00057	0.0050	06/17/24 12:59	
Dichlorodifluoromethane	mg/kg	<0.00052	0.0050	06/17/24 12:59	
Ethyl methacrylate	mg/kg	<0.00058	0.10	06/17/24 12:59	
Ethylbenzene	mg/kg	<0.00056	0.0050	06/17/24 12:59	
Hexachloro-1,3-butadiene	mg/kg	<0.00060	0.0050	06/17/24 12:59	
Iodomethane	mg/kg	<0.0011	0.10	06/17/24 12:59	
Isopropylbenzene (Cumene)	mg/kg	<0.00054	0.0050	06/17/24 12:59	
Methyl-tert-butyl ether	mg/kg	<0.00046	0.0050	06/17/24 12:59	
Methylene Chloride	mg/kg	<0.0050	0.020	06/17/24 12:59	
n-Butylbenzene	mg/kg	<0.00051	0.0050	06/17/24 12:59	
n-Hexane	mg/kg	<0.00032	0.0050	06/17/24 12:59	
n-Propylbenzene	mg/kg	<0.00051	0.0050	06/17/24 12:59	
Naphthalene	mg/kg	<0.0012	0.0050	06/17/24 12:59	
p-Isopropyltoluene	mg/kg	<0.00052	0.0050	06/17/24 12:59	
sec-Butylbenzene	mg/kg	<0.00049	0.0050	06/17/24 12:59	
Styrene	mg/kg	<0.00060	0.0050	06/17/24 12:59	
tert-Butylbenzene	mg/kg	<0.00054	0.0050	06/17/24 12:59	
Tetrachloroethene	mg/kg	<0.00046	0.0050	06/17/24 12:59	
Toluene	mg/kg	<0.0013	0.0050	06/17/24 12:59	
trans-1,2-Dichloroethene	mg/kg	<0.00045	0.0050	06/17/24 12:59	
trans-1,3-Dichloropropene	mg/kg	<0.00069	0.0050	06/17/24 12:59	
trans-1,4-Dichloro-2-butene	mg/kg	<0.00072	0.10	06/17/24 12:59	
Trichloroethene	mg/kg	<0.00054	0.0050	06/17/24 12:59	
Trichlorofluoromethane	mg/kg	<0.00035	0.0050	06/17/24 12:59	
Vinyl acetate	mg/kg	<0.0021	0.10	06/17/24 12:59	
Vinyl chloride	mg/kg	<0.00047	0.0050	06/17/24 12:59	
Xylene (Total)	mg/kg	<0.0011	0.010	06/17/24 12:59	
4-Bromofluorobenzene (S)	%	100	63-132	06/17/24 12:59	
Dibromofluoromethane (S)	%	99	75-135	06/17/24 12:59	1d
Toluene-d8 (S)	%	101	65-148	06/17/24 12:59	

LABORATORY CONTROL SAMPLE: 3643115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/kg	0.05	0.050	100	67-134	
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.041	83	67-122	
1,1-Dichloroethene	mg/kg	0.05	0.048	97	57-140	
1,2,4-Trimethylbenzene	mg/kg	0.05	0.048	97	60-122	
1,2-Dibromoethane (EDB)	mg/kg	0.05	0.045	89	71-126	
1,2-Dichloroethane	mg/kg	0.05	0.044	87	67-129	
1,2-Dichloropropane	mg/kg	0.05	0.045	90	71-123	

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### QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375064

LABORATORY CONTROL SAMPLE: 3643115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3,5-Trimethylbenzene	mg/kg	0.05	0.047	95	62-118	
Benzene	mg/kg	0.05	0.046	92	69-125	
Chlorobenzene	mg/kg	0.05	0.046	92	68-122	
Chloroform	mg/kg	0.05	0.046	92	71-124	
cis-1,2-Dichloroethene	mg/kg	0.05	0.047	94	70-123	
Ethylbenzene	mg/kg	0.05	0.048	97	65-124	
Isopropylbenzene (Cumene)	mg/kg	0.05	0.044	87	65-126	
Methyl-tert-butyl ether	mg/kg	0.05	0.043	86	69-128	
n-Hexane	mg/kg	0.05	0.044	88	55-123	
Naphthalene	mg/kg	0.05	0.044	89	60-133	
Tetrachloroethene	mg/kg	0.05	0.050	100	62-128	
Toluene	mg/kg	0.05	0.045	90	60-122	
trans-1,2-Dichloroethene	mg/kg	0.05	0.048	96	67-124	
Trichloroethene	mg/kg	0.05	0.048	97	68-128	
Vinyl chloride	mg/kg	0.05	0.055	111	52-142	
Xylene (Total)	mg/kg	0.15	0.14	94	62-122	
4-Bromofluorobenzene (S)	%			99	63-132	
Dibromofluoromethane (S)	%			100	75-135	
Toluene-d8 (S)	%			100	65-148	

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QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375064

QC Batch: 796250

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375064004, 50375064005, 50375064006, 50375064007

METHOD BLANK: 3643410

Matrix: Solid

Associated Lab Samples: 50375064004, 50375064005, 50375064006, 50375064007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	<0.00068	0.0050	06/18/24 09:42	
1,1,1-Trichloroethane	mg/kg	<0.00074	0.0050	06/18/24 09:42	
1,1,2,2-Tetrachloroethane	mg/kg	<0.00075	0.0050	06/18/24 09:42	
1,1,2-Trichloroethane	mg/kg	<0.00074	0.0050	06/18/24 09:42	
1,1-Dichloroethane	mg/kg	<0.00061	0.0050	06/18/24 09:42	
1,1-Dichloroethene	mg/kg	<0.00076	0.0050	06/18/24 09:42	
1,1-Dichloropropene	mg/kg	<0.0015	0.0050	06/18/24 09:42	
1,2,3-Trichlorobenzene	mg/kg	<0.00073	0.0050	06/18/24 09:42	
1,2,3-Trichloropropane	mg/kg	<0.0014	0.0050	06/18/24 09:42	
1,2,4-Trichlorobenzene	mg/kg	<0.00072	0.0050	06/18/24 09:42	
1,2,4-Trimethylbenzene	mg/kg	<0.00066	0.0050	06/18/24 09:42	
1,2-Dibromoethane (EDB)	mg/kg	<0.00069	0.0050	06/18/24 09:42	
1,2-Dichlorobenzene	mg/kg	<0.00068	0.0050	06/18/24 09:42	
1,2-Dichloroethane	mg/kg	<0.0010	0.0050	06/18/24 09:42	
1,2-Dichloropropane	mg/kg	<0.00071	0.0050	06/18/24 09:42	
1,3,5-Trimethylbenzene	mg/kg	<0.0033	0.0050	06/18/24 09:42	
1,3-Dichlorobenzene	mg/kg	<0.00067	0.0050	06/18/24 09:42	
1,3-Dichloropropane	mg/kg	<0.00070	0.0050	06/18/24 09:42	
1,4-Dichlorobenzene	mg/kg	<0.00065	0.0050	06/18/24 09:42	
2,2-Dichloropropane	mg/kg	<0.00064	0.0050	06/18/24 09:42	
2-Butanone (MEK)	mg/kg	<0.012	0.025	06/18/24 09:42	
2-Chlorotoluene	mg/kg	<0.00068	0.0050	06/18/24 09:42	
2-Hexanone	mg/kg	<0.0094	0.10	06/18/24 09:42	
4-Chlorotoluene	mg/kg	<0.00067	0.0050	06/18/24 09:42	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0037	0.025	06/18/24 09:42	
Acetone	mg/kg	<0.020	0.10	06/18/24 09:42	
Acrolein	mg/kg	<0.019	0.10	06/18/24 09:42	
Acrylonitrile	mg/kg	<0.0038	0.10	06/18/24 09:42	
Benzene	mg/kg	<0.00057	0.0050	06/18/24 09:42	
Bromobenzene	mg/kg	<0.00070	0.0050	06/18/24 09:42	
Bromochloromethane	mg/kg	<0.00079	0.0050	06/18/24 09:42	
Bromodichloromethane	mg/kg	<0.00063	0.0050	06/18/24 09:42	
Bromoform	mg/kg	<0.00066	0.0050	06/18/24 09:42	
Bromomethane	mg/kg	<0.00063	0.0050	06/18/24 09:42	
Carbon disulfide	mg/kg	<0.00070	0.010	06/18/24 09:42	
Carbon tetrachloride	mg/kg	<0.0025	0.0050	06/18/24 09:42	
Chlorobenzene	mg/kg	<0.00066	0.0050	06/18/24 09:42	
Chloroethane	mg/kg	<0.00096	0.0050	06/18/24 09:42	
Chloroform	mg/kg	<0.0023	0.0050	06/18/24 09:42	
Chloromethane	mg/kg	<0.00058	0.0050	06/18/24 09:42	

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**QUALITY CONTROL DATA**

Project: Jasper WWTP

Pace Project No.: 50375064

METHOD BLANK: 3643410

Matrix: Solid

Associated Lab Samples: 50375064004, 50375064005, 50375064006, 50375064007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	mg/kg	<0.00069	0.0050	06/18/24 09:42	
cis-1,3-Dichloropropene	mg/kg	<0.00063	0.0050	06/18/24 09:42	
Dibromochloromethane	mg/kg	<0.00069	0.0050	06/18/24 09:42	
Dibromomethane	mg/kg	<0.0013	0.0050	06/18/24 09:42	
Dichlorodifluoromethane	mg/kg	<0.0026	0.0050	06/18/24 09:42	
Ethyl methacrylate	mg/kg	<0.00066	0.10	06/18/24 09:42	
Ethylbenzene	mg/kg	<0.00064	0.0050	06/18/24 09:42	
Hexachloro-1,3-butadiene	mg/kg	<0.00068	0.0050	06/18/24 09:42	
Iodomethane	mg/kg	<0.0028	0.10	06/18/24 09:42	
Isopropylbenzene (Cumene)	mg/kg	<0.0016	0.0050	06/18/24 09:42	
Methyl-tert-butyl ether	mg/kg	<0.00059	0.0050	06/18/24 09:42	
Methylene Chloride	mg/kg	<0.0089	0.020	06/18/24 09:42	
n-Butylbenzene	mg/kg	<0.00062	0.0050	06/18/24 09:42	
n-Hexane	mg/kg	<0.0036	0.0050	06/18/24 09:42	
n-Propylbenzene	mg/kg	<0.00060	0.0050	06/18/24 09:42	
Naphthalene	mg/kg	<0.00076	0.0050	06/18/24 09:42	
p-Isopropyltoluene	mg/kg	<0.00062	0.0050	06/18/24 09:42	
sec-Butylbenzene	mg/kg	<0.00062	0.0050	06/18/24 09:42	
Styrene	mg/kg	<0.0036	0.0050	06/18/24 09:42	
tert-Butylbenzene	mg/kg	<0.00063	0.0050	06/18/24 09:42	
Tetrachloroethene	mg/kg	<0.00062	0.0050	06/18/24 09:42	
Toluene	mg/kg	<0.0012	0.0050	06/18/24 09:42	
trans-1,2-Dichloroethene	mg/kg	<0.00067	0.0050	06/18/24 09:42	
trans-1,3-Dichloropropene	mg/kg	<0.0013	0.0050	06/18/24 09:42	
trans-1,4-Dichloro-2-butene	mg/kg	<0.0013	0.10	06/18/24 09:42	
Trichloroethene	mg/kg	<0.00070	0.0050	06/18/24 09:42	
Trichlorofluoromethane	mg/kg	<0.0028	0.0050	06/18/24 09:42	
Vinyl acetate	mg/kg	<0.0019	0.10	06/18/24 09:42	
Vinyl chloride	mg/kg	<0.00055	0.0050	06/18/24 09:42	
Xylene (Total)	mg/kg	<0.0013	0.010	06/18/24 09:42	
4-Bromofluorobenzene (S)	%	98	63-132	06/18/24 09:42	
Dibromofluoromethane (S)	%	109	75-135	06/18/24 09:42	1d
Toluene-d8 (S)	%	95	65-148	06/18/24 09:42	

LABORATORY CONTROL SAMPLE: 3643411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	0.05	0.047	94	70-129	
1,1,1-Trichloroethane	mg/kg	0.05	0.047	94	67-134	
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.047	93	67-122	
1,1,2-Trichloroethane	mg/kg	0.05	0.046	93	72-127	
1,1-Dichloroethane	mg/kg	0.05	0.046	91	72-121	
1,1-Dichloroethene	mg/kg	0.05	0.046	91	57-140	
1,1-Dichloropropene	mg/kg	0.05	0.050	100	76-133	

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## QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375064

LABORATORY CONTROL SAMPLE: 3643411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichlorobenzene	mg/kg	0.05	0.049	98	53-139	
1,2,3-Trichloropropane	mg/kg	0.05	0.047	94	70-124	
1,2,4-Trichlorobenzene	mg/kg	0.05	0.048	96	49-136	
1,2,4-Trimethylbenzene	mg/kg	0.05	0.046	91	60-122	
1,2-Dibromoethane (EDB)	mg/kg	0.05	0.046	92	71-126	
1,2-Dichlorobenzene	mg/kg	0.05	0.047	93	68-120	
1,2-Dichloroethane	mg/kg	0.05	0.045	89	67-129	
1,2-Dichloropropane	mg/kg	0.05	0.048	97	71-123	
1,3,5-Trimethylbenzene	mg/kg	0.05	0.046	92	62-118	
1,3-Dichlorobenzene	mg/kg	0.05	0.049	97	65-121	
1,3-Dichloropropane	mg/kg	0.05	0.046	91	73-127	
1,4-Dichlorobenzene	mg/kg	0.05	0.046	92	66-122	
2,2-Dichloropropane	mg/kg	0.05	0.045	90	63-137	
2-Butanone (MEK)	mg/kg	0.25	0.18	74	59-136	
2-Chlorotoluene	mg/kg	0.05	0.046	93	67-121	
2-Hexanone	mg/kg	0.25	0.13	53	62-127 L2	
4-Chlorotoluene	mg/kg	0.05	0.049	97	66-122	
4-Methyl-2-pentanone (MIBK)	mg/kg	0.25	0.17	68	67-131	
Acetone	mg/kg	0.25	0.14	57	45-127	
Acrolein	mg/kg	1	0.92	92	42-158	
Acrylonitrile	mg/kg	0.25	0.24	97	69-127	
Benzene	mg/kg	0.05	0.046	92	69-125	
Bromobenzene	mg/kg	0.05	0.043	86	69-121	
Bromochloromethane	mg/kg	0.05	0.045	90	70-125	
Bromodichloromethane	mg/kg	0.05	0.050	100	77-130	
Bromoform	mg/kg	0.05	0.050	100	67-128	
Bromomethane	mg/kg	0.05	0.060	119	60-156	
Carbon disulfide	mg/kg	0.05	0.045	91	47-137	
Carbon tetrachloride	mg/kg	0.05	0.048	96	68-132	
Chlorobenzene	mg/kg	0.05	0.046	92	68-122	
Chloroethane	mg/kg	0.05	0.052	103	61-137	
Chloroform	mg/kg	0.05	0.047	94	71-124	
Chloromethane	mg/kg	0.05	0.046	91	56-131	
cis-1,2-Dichloroethene	mg/kg	0.05	0.048	96	70-123	
cis-1,3-Dichloropropene	mg/kg	0.05	0.047	94	72-136	
Dibromochloromethane	mg/kg	0.05	0.050	99	73-130	
Dibromomethane	mg/kg	0.05	0.050	101	74-123	
Dichlorodifluoromethane	mg/kg	0.05	0.042	84	23-127	
Ethyl methacrylate	mg/kg	0.05	0.050J	100	70-131	
Ethylbenzene	mg/kg	0.05	0.046	92	65-124	
Hexachloro-1,3-butadiene	mg/kg	0.05	0.044	88	52-133	
Iodomethane	mg/kg	0.05	0.056J	112	50-137	
Isopropylbenzene (Cumene)	mg/kg	0.05	0.041	83	65-126	
Methyl-tert-butyl ether	mg/kg	0.05	0.049	99	69-128	
Methylene Chloride	mg/kg	0.05	0.050	100	61-128	
n-Butylbenzene	mg/kg	0.05	0.045	90	62-127	
n-Hexane	mg/kg	0.05	0.040	79	55-123	

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### QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375064

LABORATORY CONTROL SAMPLE: 3643411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Propylbenzene	mg/kg	0.05	0.045	91	67-124	
Naphthalene	mg/kg	0.05	0.044	88	60-133	
p-Isopropyltoluene	mg/kg	0.05	0.046	92	64-124	
sec-Butylbenzene	mg/kg	0.05	0.046	93	68-124	
Styrene	mg/kg	0.05	0.047	94	68-124	
tert-Butylbenzene	mg/kg	0.05	0.048	95	69-122	
Tetrachloroethene	mg/kg	0.05	0.045	91	62-128	
Toluene	mg/kg	0.05	0.044	88	60-122	
trans-1,2-Dichloroethene	mg/kg	0.05	0.048	95	67-124	
trans-1,3-Dichloropropene	mg/kg	0.05	0.046	91	68-136	
trans-1,4-Dichloro-2-butene	mg/kg	0.05	0.042J	83	64-134	
Trichloroethene	mg/kg	0.05	0.049	98	68-128	
Trichlorofluoromethane	mg/kg	0.05	0.045	90	57-146	
Vinyl acetate	mg/kg	0.2	0.22	111	56-181	
Vinyl chloride	mg/kg	0.05	0.050	100	52-142	
Xylene (Total)	mg/kg	0.15	0.14	91	62-122	
4-Bromofluorobenzene (S)	%			96	63-132	
Dibromofluoromethane (S)	%			104	75-135	
Toluene-d8 (S)	%			95	65-148	

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## QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375064

QC Batch: 796357

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375064002

METHOD BLANK: 3643770

Matrix: Solid

Associated Lab Samples: 50375064002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	<0.00063	0.0050	06/18/24 12:48	
1,1,1-Trichloroethane	mg/kg	<0.00042	0.0050	06/18/24 12:48	
1,1,2,2-Tetrachloroethane	mg/kg	<0.00062	0.0050	06/18/24 12:48	
1,1,2-Trichloroethane	mg/kg	<0.00062	0.0050	06/18/24 12:48	
1,1-Dichloroethane	mg/kg	<0.00039	0.0050	06/18/24 12:48	
1,1-Dichloroethene	mg/kg	<0.00055	0.0050	06/18/24 12:48	
1,1-Dichloropropene	mg/kg	<0.00045	0.0050	06/18/24 12:48	
1,2,3-Trichlorobenzene	mg/kg	<0.00061	0.0050	06/18/24 12:48	
1,2,3-Trichloropropane	mg/kg	<0.00072	0.0050	06/18/24 12:48	
1,2,4-Trichlorobenzene	mg/kg	<0.00070	0.0050	06/18/24 12:48	
1,2,4-Trimethylbenzene	mg/kg	<0.00060	0.0050	06/18/24 12:48	
1,2-Dibromoethane (EDB)	mg/kg	<0.00059	0.0050	06/18/24 12:48	
1,2-Dichlorobenzene	mg/kg	<0.00075	0.0050	06/18/24 12:48	
1,2-Dichloroethane	mg/kg	<0.00044	0.0050	06/18/24 12:48	
1,2-Dichloropropane	mg/kg	<0.00055	0.0050	06/18/24 12:48	
1,3,5-Trimethylbenzene	mg/kg	<0.00055	0.0050	06/18/24 12:48	
1,3-Dichlorobenzene	mg/kg	<0.00073	0.0050	06/18/24 12:48	
1,3-Dichloropropane	mg/kg	<0.00056	0.0050	06/18/24 12:48	
1,4-Dichlorobenzene	mg/kg	<0.00074	0.0050	06/18/24 12:48	
2,2-Dichloropropane	mg/kg	<0.00043	0.0050	06/18/24 12:48	
2-Butanone (MEK)	mg/kg	<0.0034	0.025	06/18/24 12:48	
2-Chlorotoluene	mg/kg	<0.00058	0.0050	06/18/24 12:48	
2-Hexanone	mg/kg	<0.0026	0.10	06/18/24 12:48	
4-Chlorotoluene	mg/kg	<0.00063	0.0050	06/18/24 12:48	
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.0025	0.025	06/18/24 12:48	
Acetone	mg/kg	<0.0058	0.10	06/18/24 12:48	
Acrolein	mg/kg	<0.016	0.10	06/18/24 12:48	
Acrylonitrile	mg/kg	<0.0035	0.10	06/18/24 12:48	
Benzene	mg/kg	<0.00054	0.0050	06/18/24 12:48	
Bromobenzene	mg/kg	<0.00066	0.0050	06/18/24 12:48	
Bromochloromethane	mg/kg	<0.00055	0.0050	06/18/24 12:48	
Bromodichloromethane	mg/kg	<0.00057	0.0050	06/18/24 12:48	
Bromoform	mg/kg	<0.00063	0.0050	06/18/24 12:48	
Bromomethane	mg/kg	<0.00060	0.0050	06/18/24 12:48	
Carbon disulfide	mg/kg	<0.00075	0.010	06/18/24 12:48	
Carbon tetrachloride	mg/kg	<0.00044	0.0050	06/18/24 12:48	
Chlorobenzene	mg/kg	<0.00060	0.0050	06/18/24 12:48	
Chloroethane	mg/kg	<0.0011	0.0050	06/18/24 12:48	
Chloroform	mg/kg	<0.00066	0.0050	06/18/24 12:48	
Chloromethane	mg/kg	<0.00060	0.0050	06/18/24 12:48	

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**QUALITY CONTROL DATA**

Project: Jasper WWTP

Pace Project No.: 50375064

METHOD BLANK: 3643770

Matrix: Solid

Associated Lab Samples: 50375064002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	mg/kg	<0.00049	0.0050	06/18/24 12:48	
cis-1,3-Dichloropropene	mg/kg	<0.00050	0.0050	06/18/24 12:48	
Dibromochloromethane	mg/kg	<0.00060	0.0050	06/18/24 12:48	
Dibromomethane	mg/kg	<0.00059	0.0050	06/18/24 12:48	
Dichlorodifluoromethane	mg/kg	<0.00053	0.0050	06/18/24 12:48	
Ethyl methacrylate	mg/kg	<0.00062	0.10	06/18/24 12:48	
Ethylbenzene	mg/kg	<0.00054	0.0050	06/18/24 12:48	
Hexachloro-1,3-butadiene	mg/kg	<0.00047	0.0050	06/18/24 12:48	
Iodomethane	mg/kg	<0.0026	0.10	06/18/24 12:48	
Isopropylbenzene (Cumene)	mg/kg	<0.00053	0.0050	06/18/24 12:48	
Methyl-tert-butyl ether	mg/kg	<0.00070	0.0050	06/18/24 12:48	
Methylene Chloride	mg/kg	0.0062J	0.020	06/18/24 12:48	
n-Butylbenzene	mg/kg	<0.00052	0.0050	06/18/24 12:48	
n-Hexane	mg/kg	<0.00090	0.0050	06/18/24 12:48	
n-Propylbenzene	mg/kg	<0.00051	0.0050	06/18/24 12:48	
Naphthalene	mg/kg	<0.00075	0.0050	06/18/24 12:48	
p-Isopropyltoluene	mg/kg	<0.00051	0.0050	06/18/24 12:48	
sec-Butylbenzene	mg/kg	<0.00049	0.0050	06/18/24 12:48	
Styrene	mg/kg	<0.00065	0.0050	06/18/24 12:48	
tert-Butylbenzene	mg/kg	<0.00048	0.0050	06/18/24 12:48	
Tetrachloroethene	mg/kg	<0.00049	0.0050	06/18/24 12:48	
Toluene	mg/kg	<0.0012	0.0050	06/18/24 12:48	
trans-1,2-Dichloroethene	mg/kg	<0.00046	0.0050	06/18/24 12:48	
trans-1,3-Dichloropropene	mg/kg	<0.00053	0.0050	06/18/24 12:48	
trans-1,4-Dichloro-2-butene	mg/kg	<0.00075	0.10	06/18/24 12:48	
Trichloroethene	mg/kg	<0.00048	0.0050	06/18/24 12:48	
Trichlorofluoromethane	mg/kg	<0.0030	0.0050	06/18/24 12:48	
Vinyl acetate	mg/kg	<0.0019	0.10	06/18/24 12:48	
Vinyl chloride	mg/kg	<0.00051	0.0050	06/18/24 12:48	
Xylene (Total)	mg/kg	<0.0010	0.010	06/18/24 12:48	
4-Bromofluorobenzene (S)	%	100	63-132	06/18/24 12:48	
Dibromofluoromethane (S)	%	101	75-135	06/18/24 12:48	
Toluene-d8 (S)	%	98	65-148	06/18/24 12:48	

LABORATORY CONTROL SAMPLE: 3643771

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/kg	0.05	0.044	87	67-134	
1,1,2,2-Tetrachloroethane	mg/kg	0.05	0.037	73	67-122	
1,1-Dichloroethene	mg/kg	0.05	0.040	79	57-140	
1,2,4-Trimethylbenzene	mg/kg	0.05	0.040	80	60-122	
1,2-Dibromoethane (EDB)	mg/kg	0.05	0.040	80	71-126	
1,2-Dichloroethane	mg/kg	0.05	0.039	78	67-129	
1,2-Dichloropropane	mg/kg	0.05	0.040	80	71-123	

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**QUALITY CONTROL DATA**

Project: Jasper WWTP  
Pace Project No.: 50375064

LABORATORY CONTROL SAMPLE: 3643771

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3,5-Trimethylbenzene	mg/kg	0.05	0.040	81	62-118	
Benzene	mg/kg	0.05	0.040	79	69-125	
Chlorobenzene	mg/kg	0.05	0.040	79	68-122	
Chloroform	mg/kg	0.05	0.042	83	71-124	
cis-1,2-Dichloroethene	mg/kg	0.05	0.042	83	70-123	
Ethylbenzene	mg/kg	0.05	0.042	84	65-124	
Isopropylbenzene (Cumene)	mg/kg	0.05	0.038	75	65-126	
Methyl-tert-butyl ether	mg/kg	0.05	0.039	78	69-128	
n-Hexane	mg/kg	0.05	0.039	78	55-123	
Naphthalene	mg/kg	0.05	0.037	74	60-133	
Tetrachloroethene	mg/kg	0.05	0.043	85	62-128	
Toluene	mg/kg	0.05	0.040	80	60-122	
trans-1,2-Dichloroethene	mg/kg	0.05	0.043	85	67-124	
Trichloroethene	mg/kg	0.05	0.042	84	68-128	
Vinyl chloride	mg/kg	0.05	0.047	93	52-142	
Xylene (Total)	mg/kg	0.15	0.12	81	62-122	
4-Bromofluorobenzene (S)	%			100	63-132	
Dibromofluoromethane (S)	%			101	75-135	
Toluene-d8 (S)	%			100	65-148	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643772 3643773

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50375064002 Result	Spike Conc.	Spike Conc.	Result							Result
1,1,1-Trichloroethane	mg/kg	<0.00085	0.088	0.05	0.073	0.048	82	97	52-148	40	20	R1
1,1,2,2-Tetrachloroethane	mg/kg	<0.0013	0.088	0.05	0.064	0.034	73	69	24-166	61	20	R1
1,1-Dichloroethene	mg/kg	<0.0011	0.088	0.05	0.060	0.041	68	83	39-162	37	20	R1
1,2,4-Trimethylbenzene	mg/kg	<0.0012	0.088	0.05	0.044	0.029	51	59	12-157	42	20	R1
1,2-Dibromoethane (EDB)	mg/kg	<0.0012	0.088	0.05	0.073	0.039	83	78	36-141	61	20	R1
1,2-Dichloroethane	mg/kg	<0.00091	0.088	0.05	0.076	0.042	86	84	48-138	58	20	R1
1,2-Dichloropropane	mg/kg	<0.0011	0.088	0.05	0.069	0.041	78	83	45-140	50	20	R1
1,3,5-Trimethylbenzene	mg/kg	<0.0011	0.088	0.05	0.047	0.030	53	61	11-170	42	20	R1
Benzene	mg/kg	<0.0011	0.088	0.05	0.063	0.040	71	81	48-137	44	20	R1
Chlorobenzene	mg/kg	<0.0012	0.088	0.05	0.055	0.034	63	69	28-136	46	20	R1
Chloroform	mg/kg	<0.0014	0.088	0.05	0.072	0.045	82	90	54-136	47	20	R1
cis-1,2-Dichloroethene	mg/kg	<0.0010	0.088	0.05	0.066	0.041	75	82	52-132	47	20	R1
Ethylbenzene	mg/kg	<0.0011	0.088	0.05	0.057	0.037	65	75	24-150	42	20	R1
Isopropylbenzene (Cumene)	mg/kg	<0.0011	0.088	0.05	0.051	0.032	57	65	30-144	44	20	R1
Methyl-tert-butyl ether	mg/kg	<0.0014	0.088	0.05	0.075	0.041	86	82	57-141	59	20	R1
n-Hexane	mg/kg	<0.0018	0.088	0.05	0.066	0.036	75	73	22-150	59	20	R1
Naphthalene	mg/kg	<0.0015	0.088	0.05	0.038	0.019	44	39	10-132	66	20	R1
Tetrachloroethene	mg/kg	<0.0010	0.088	0.05	0.058	0.039	66	79	26-159	38	20	R1
Toluene	mg/kg	<0.0024	0.088	0.05	0.058	0.039	65	76	28-150	40	20	R1
trans-1,2-Dichloroethene	mg/kg	<0.00094	0.088	0.05	0.060	0.040	69	80	50-134	41	20	R1

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### QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375064

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643772 3643773														
Parameter	Units	50375064002		3643772		3643773		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Trichloroethene	mg/kg	<0.00098	0.088	0.05	0.060	0.041	68	82	33-155	38	20	R1		
Vinyl chloride	mg/kg	<0.0010	0.088	0.05	0.076	0.051	86	102	37-161	39	20	R1		
Xylene (Total)	mg/kg	0.0021J	0.27	0.15	0.16	0.11	61	69	25-142	43	20	RS		
4-Bromofluorobenzene (S)	%						102	102	63-132					
Dibromofluoromethane (S)	%						104	104	75-135					
Toluene-d8 (S)	%						98	99	65-148					

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Jasper WWTP

Pace Project No.: 50375064

QC Batch:	795832	Analysis Method:	EPA 8270 by SIM
QC Batch Method:	EPA 3546	Analysis Description:	8270 Soil PAH by SIM
		Laboratory:	Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375064001, 50375064002, 50375064003, 50375064004

METHOD BLANK: 3641504 Matrix: Solid

Associated Lab Samples: 50375064001, 50375064002, 50375064003, 50375064004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	<0.0020	0.0050	06/17/24 13:28	
2-Methylnaphthalene	mg/kg	<0.0047	0.0050	06/17/24 13:28	
Acenaphthene	mg/kg	<0.0020	0.0050	06/17/24 13:28	
Acenaphthylene	mg/kg	<0.0019	0.0050	06/17/24 13:28	
Anthracene	mg/kg	<0.0025	0.0050	06/17/24 13:28	
Benzo(a)anthracene	mg/kg	<0.0014	0.0050	06/17/24 13:28	
Benzo(a)pyrene	mg/kg	<0.0030	0.0050	06/17/24 13:28	
Benzo(b)fluoranthene	mg/kg	<0.0028	0.0050	06/17/24 13:28	
Benzo(g,h,i)perylene	mg/kg	<0.0030	0.0050	06/17/24 13:28	
Benzo(k)fluoranthene	mg/kg	<0.0023	0.0050	06/17/24 13:28	
Chrysene	mg/kg	<0.0034	0.0050	06/17/24 13:28	
Dibenz(a,h)anthracene	mg/kg	<0.0025	0.0050	06/17/24 13:28	
Fluoranthene	mg/kg	<0.0035	0.0050	06/17/24 13:28	
Fluorene	mg/kg	<0.0020	0.0050	06/17/24 13:28	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0025	0.0050	06/17/24 13:28	
Naphthalene	mg/kg	<0.0046	0.0050	06/17/24 13:28	
Phenanthrene	mg/kg	<0.0036	0.0050	06/17/24 13:28	
Pyrene	mg/kg	<0.0034	0.0050	06/17/24 13:28	
2-Fluorobiphenyl (S)	%	68	16-93	06/17/24 13:28	
p-Terphenyl-d14 (S)	%	87	19-115	06/17/24 13:28	

LABORATORY CONTROL SAMPLE: 3641505

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	0.67	0.46	69	49-116	
2-Methylnaphthalene	mg/kg	0.67	0.41	61	48-116	
Acenaphthene	mg/kg	0.67	0.46	69	48-118	
Acenaphthylene	mg/kg	0.67	0.53	80	50-123	
Anthracene	mg/kg	0.67	0.46	69	45-123	
Benzo(a)anthracene	mg/kg	0.67	0.48	72	52-131	
Benzo(a)pyrene	mg/kg	0.67	0.54	82	56-135	
Benzo(b)fluoranthene	mg/kg	0.67	0.52	78	52-139	
Benzo(g,h,i)perylene	mg/kg	0.67	0.46	69	49-132	
Benzo(k)fluoranthene	mg/kg	0.67	0.54	81	55-134	
Chrysene	mg/kg	0.67	0.49	74	52-127	
Dibenz(a,h)anthracene	mg/kg	0.67	0.50	75	51-137	
Fluoranthene	mg/kg	0.67	0.52	79	53-136	
Fluorene	mg/kg	0.67	0.48	73	52-124	
Indeno(1,2,3-cd)pyrene	mg/kg	0.67	0.49	74	49-139	

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**QUALITY CONTROL DATA**

Project: Jasper WWTP

Pace Project No.: 50375064

LABORATORY CONTROL SAMPLE: 3641505

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	mg/kg	0.67	0.46	69	45-110	
Phenanthrene	mg/kg	0.67	0.49	73	52-124	
Pyrene	mg/kg	0.67	0.54	80	53-129	
2-Fluorobiphenyl (S)	%			67	16-93	
p-Terphenyl-d14 (S)	%			83	19-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3641506 3641507

Parameter	Units	MS 50375064002		MSD 3641507		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	MS Result						
1-Methylnaphthalene	mg/kg	<0.0023	0.78	0.77	0.48	0.48	62	63	20-133	0	20
2-Methylnaphthalene	mg/kg	<0.0054	0.78	0.77	0.43	0.42	55	55	16-136	1	20
Acenaphthene	mg/kg	<0.0023	0.78	0.77	0.48	0.47	62	62	30-119	2	20
Acenaphthylene	mg/kg	<0.0021	0.78	0.77	0.57	0.56	73	73	34-117	2	20
Anthracene	mg/kg	<0.0029	0.78	0.77	0.47	0.45	61	59	16-129	4	20
Benzo(a)anthracene	mg/kg	<0.0016	0.78	0.77	0.49	0.46	63	60	20-136	7	20
Benzo(a)pyrene	mg/kg	<0.0034	0.78	0.77	0.54	0.51	70	66	20-142	7	20
Benzo(b)fluoranthene	mg/kg	0.0043J	0.78	0.77	0.52	0.48	67	63	17-141	7	20
Benzo(g,h,i)perylene	mg/kg	<0.0034	0.78	0.77	0.44	0.42	57	55	14-130	5	20
Benzo(k)fluoranthene	mg/kg	<0.0026	0.78	0.77	0.53	0.50	69	66	19-142	5	20
Chrysene	mg/kg	<0.0039	0.78	0.77	0.50	0.47	65	62	22-131	6	20
Dibenz(a,h)anthracene	mg/kg	<0.0028	0.78	0.77	0.50	0.47	64	61	27-124	7	20
Fluoranthene	mg/kg	0.0054J	0.78	0.77	0.54	0.51	69	66	12-155	6	20
Fluorene	mg/kg	<0.0023	0.78	0.77	0.51	0.49	65	64	25-135	3	20
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0029	0.78	0.77	0.48	0.45	62	59	18-133	5	20
Naphthalene	mg/kg	<0.0052	0.78	0.77	0.50	0.50	65	65	11-130	1	20
Phenanthrene	mg/kg	<0.0041	0.78	0.77	0.51	0.49	66	64	11-147	5	20
Pyrene	mg/kg	0.0058	0.78	0.77	0.57	0.53	72	68	11-154	7	20
2-Fluorobiphenyl (S)	%						66	64	16-93		
p-Terphenyl-d14 (S)	%						80	76	19-115		

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**QUALITY CONTROL DATA**

Project: Jasper WWTP

Pace Project No.: 50375064

QC Batch: 795846

Analysis Method: EPA 8270 by SIM

QC Batch Method: EPA 3546

Analysis Description: 8270 Soil PAH by SIM

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375064005

METHOD BLANK: 3641550

Matrix: Solid

Associated Lab Samples: 50375064005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	<0.0020	0.0050	06/17/24 16:43	
2-Methylnaphthalene	mg/kg	<0.0047	0.0050	06/17/24 16:43	
Acenaphthene	mg/kg	<0.0020	0.0050	06/17/24 16:43	
Acenaphthylene	mg/kg	<0.0019	0.0050	06/17/24 16:43	
Anthracene	mg/kg	<0.0025	0.0050	06/17/24 16:43	
Benzo(a)anthracene	mg/kg	<0.0014	0.0050	06/17/24 16:43	
Benzo(a)pyrene	mg/kg	<0.0030	0.0050	06/17/24 16:43	
Benzo(b)fluoranthene	mg/kg	<0.0028	0.0050	06/17/24 16:43	
Benzo(g,h,i)perylene	mg/kg	<0.0030	0.0050	06/17/24 16:43	
Benzo(k)fluoranthene	mg/kg	<0.0023	0.0050	06/17/24 16:43	
Chrysene	mg/kg	<0.0034	0.0050	06/17/24 16:43	
Dibenz(a,h)anthracene	mg/kg	<0.0025	0.0050	06/17/24 16:43	
Fluoranthene	mg/kg	<0.0035	0.0050	06/17/24 16:43	
Fluorene	mg/kg	<0.0020	0.0050	06/17/24 16:43	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0025	0.0050	06/17/24 16:43	
Naphthalene	mg/kg	<0.0046	0.0050	06/17/24 16:43	
Phenanthrene	mg/kg	<0.0036	0.0050	06/17/24 16:43	
Pyrene	mg/kg	<0.0034	0.0050	06/17/24 16:43	
2-Fluorobiphenyl (S)	%	55	16-93	06/17/24 16:43	
p-Terphenyl-d14 (S)	%	76	19-115	06/17/24 16:43	

LABORATORY CONTROL SAMPLE: 3641551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	0.67	0.53	79	49-116	
2-Methylnaphthalene	mg/kg	0.67	0.46	69	48-116	
Acenaphthene	mg/kg	0.67	0.49	74	48-118	
Acenaphthylene	mg/kg	0.67	0.51	76	50-123	
Anthracene	mg/kg	0.67	0.50	75	45-123	
Benzo(a)anthracene	mg/kg	0.67	0.50	76	52-131	
Benzo(a)pyrene	mg/kg	0.67	0.56	84	56-135	
Benzo(b)fluoranthene	mg/kg	0.67	0.58	87	52-139	
Benzo(g,h,i)perylene	mg/kg	0.67	0.52	79	49-132	
Benzo(k)fluoranthene	mg/kg	0.67	0.57	86	55-134	
Chrysene	mg/kg	0.67	0.57	85	52-127	
Dibenz(a,h)anthracene	mg/kg	0.67	0.54	81	51-137	
Fluoranthene	mg/kg	0.67	0.54	82	53-136	
Fluorene	mg/kg	0.67	0.51	76	52-124	
Indeno(1,2,3-cd)pyrene	mg/kg	0.67	0.54	81	49-139	

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**QUALITY CONTROL DATA**

Project: Jasper WWTP  
 Pace Project No.: 50375064

LABORATORY CONTROL SAMPLE: 3641551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	mg/kg	0.67	0.48	73	45-110	
Phenanthrene	mg/kg	0.67	0.53	79	52-124	
Pyrene	mg/kg	0.67	0.59	88	53-129	
2-Fluorobiphenyl (S)	%			69	16-93	
p-Terphenyl-d14 (S)	%			82	19-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3641552 3641553

Parameter	Units	MS 3641552		MSD 3641553		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50375189009 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
1-Methylnaphthalene	mg/kg	ND	0.67	0.67	0.51	0.52	76	78	20-133	2	20	
2-Methylnaphthalene	mg/kg	ND	0.67	0.67	0.45	0.46	67	69	16-136	2	20	
Acenaphthene	mg/kg	ND	0.67	0.67	0.49	0.54	72	80	30-119	10	20	
Acenaphthylene	mg/kg	ND	0.67	0.67	0.50	0.53	75	79	34-117	5	20	
Anthracene	mg/kg	0.015	0.67	0.67	0.48	0.69	69	101	16-129	36	20	R1
Benzo(a)anthracene	mg/kg	0.12	0.67	0.67	0.54	1.8	62	246	20-136	107	20	M1,R1
Benzo(a)pyrene	mg/kg	0.14	0.67	0.67	0.60	1.7	68	230	20-142	95	20	M1,R1
Benzo(b)fluoranthene	mg/kg	0.18	0.67	0.67	0.60	2.0	63	267	17-141	107	20	M1,R1
Benzo(g,h,i)perylene	mg/kg	0.096	0.67	0.67	0.54	1.1	66	157	14-130	72	20	M1,R1
Benzo(k)fluoranthene	mg/kg	0.067	0.67	0.67	0.60	1.2	79	163	19-142	64	20	M1,R1
Chrysene	mg/kg	0.13	0.67	0.67	0.58	1.8	67	248	22-131	103	20	M1,R1
Dibenz(a,h)anthracene	mg/kg	0.027	0.67	0.67	0.52	0.72	73	103	27-124	33	20	R1
Fluoranthene	mg/kg	0.21	0.67	0.67	0.62	3.2	61	444	12-155	135	20	M1,R1
Fluorene	mg/kg	ND	0.67	0.67	0.50	0.55	74	81	25-135	9	20	
Indeno(1,2,3-cd)pyrene	mg/kg	0.081	0.67	0.67	0.54	1.1	69	150	18-133	67	20	M1,R1
Naphthalene	mg/kg	ND	0.67	0.67	0.47	0.48	69	71	11-130	2	20	
Phenanthrene	mg/kg	0.054	0.67	0.67	0.53	0.90	71	127	11-147	52	20	R1
Pyrene	mg/kg	0.23	0.67	0.67	0.67	3.1	66	425	11-154	128	20	M1,R1
2-Fluorobiphenyl (S)	%						67	68	16-93			
p-Terphenyl-d14 (S)	%						76	82	19-115			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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## QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375064

QC Batch: 795930

Analysis Method: EPA 8270 by SIM

QC Batch Method: EPA 3546

Analysis Description: 8270 Soil PAH by SIM

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375064006, 50375064007

METHOD BLANK: 3642314

Matrix: Solid

Associated Lab Samples: 50375064006, 50375064007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	<0.0020	0.0050	06/17/24 22:30	
2-Methylnaphthalene	mg/kg	<0.0047	0.0050	06/17/24 22:30	
Acenaphthene	mg/kg	<0.0020	0.0050	06/17/24 22:30	
Acenaphthylene	mg/kg	<0.0019	0.0050	06/17/24 22:30	
Anthracene	mg/kg	<0.0025	0.0050	06/17/24 22:30	
Benzo(a)anthracene	mg/kg	<0.0014	0.0050	06/17/24 22:30	
Benzo(a)pyrene	mg/kg	<0.0030	0.0050	06/17/24 22:30	
Benzo(b)fluoranthene	mg/kg	<0.0028	0.0050	06/17/24 22:30	
Benzo(g,h,i)perylene	mg/kg	<0.0030	0.0050	06/17/24 22:30	
Benzo(k)fluoranthene	mg/kg	<0.0023	0.0050	06/17/24 22:30	
Chrysene	mg/kg	<0.0034	0.0050	06/17/24 22:30	
Dibenz(a,h)anthracene	mg/kg	<0.0025	0.0050	06/17/24 22:30	
Fluoranthene	mg/kg	<0.0035	0.0050	06/17/24 22:30	
Fluorene	mg/kg	<0.0020	0.0050	06/17/24 22:30	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0025	0.0050	06/17/24 22:30	
Naphthalene	mg/kg	<0.0046	0.0050	06/17/24 22:30	
Phenanthrene	mg/kg	<0.0036	0.0050	06/17/24 22:30	
Pyrene	mg/kg	<0.0034	0.0050	06/17/24 22:30	
2-Fluorobiphenyl (S)	%	69	16-93	06/17/24 22:30	
p-Terphenyl-d14 (S)	%	90	19-115	06/17/24 22:30	

LABORATORY CONTROL SAMPLE: 3642315

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	0.67	0.47	70	49-116	
2-Methylnaphthalene	mg/kg	0.67	0.41	62	48-116	
Acenaphthene	mg/kg	0.67	0.45	68	48-118	
Acenaphthylene	mg/kg	0.67	0.46	69	50-123	
Anthracene	mg/kg	0.67	0.47	71	45-123	
Benzo(a)anthracene	mg/kg	0.67	0.48	72	52-131	
Benzo(a)pyrene	mg/kg	0.67	0.53	79	56-135	
Benzo(b)fluoranthene	mg/kg	0.67	0.52	77	52-139	
Benzo(g,h,i)perylene	mg/kg	0.67	0.50	76	49-132	
Benzo(k)fluoranthene	mg/kg	0.67	0.57	85	55-134	
Chrysene	mg/kg	0.67	0.54	81	52-127	
Dibenz(a,h)anthracene	mg/kg	0.67	0.52	78	51-137	
Fluoranthene	mg/kg	0.67	0.51	77	53-136	
Fluorene	mg/kg	0.67	0.48	71	52-124	
Indeno(1,2,3-cd)pyrene	mg/kg	0.67	0.52	78	49-139	

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**QUALITY CONTROL DATA**

Project: Jasper WWTP  
 Pace Project No.: 50375064

LABORATORY CONTROL SAMPLE: 3642315

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	mg/kg	0.67	0.43	64	45-110	
Phenanthrene	mg/kg	0.67	0.50	75	52-124	
Pyrene	mg/kg	0.67	0.58	87	53-129	
2-Fluorobiphenyl (S)	%			65	16-93	
p-Terphenyl-d14 (S)	%			85	19-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3642316 3642317

Parameter	Units	MS 50375392001		MSD 3642317		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	MS Result						
1-Methylnaphthalene	mg/kg	ND	0.67	0.67	0.43	0.46	64	69	20-133	8	20
2-Methylnaphthalene	mg/kg	ND	0.67	0.67	0.38	0.40	56	61	16-136	7	20
Acenaphthene	mg/kg	ND	0.67	0.67	0.40	0.43	60	65	30-119	7	20
Acenaphthylene	mg/kg	ND	0.67	0.67	0.42	0.45	63	67	34-117	6	20
Anthracene	mg/kg	ND	0.67	0.67	0.39	0.41	59	62	16-129	4	20
Benzo(a)anthracene	mg/kg	ND	0.67	0.67	0.38	0.39	56	58	20-136	2	20
Benzo(a)pyrene	mg/kg	ND	0.67	0.67	0.40	0.42	60	63	20-142	4	20
Benzo(b)fluoranthene	mg/kg	ND	0.67	0.67	0.38	0.40	58	59	17-141	3	20
Benzo(g,h,i)perylene	mg/kg	ND	0.67	0.67	0.37	0.38	56	57	14-130	3	20
Benzo(k)fluoranthene	mg/kg	ND	0.67	0.67	0.43	0.44	65	66	19-142	2	20
Chrysene	mg/kg	ND	0.67	0.67	0.43	0.45	65	67	22-131	4	20
Dibenz(a,h)anthracene	mg/kg	ND	0.67	0.67	0.39	0.41	59	61	27-124	4	20
Fluoranthene	mg/kg	ND	0.67	0.67	0.40	0.42	61	64	12-155	5	20
Fluorene	mg/kg	ND	0.67	0.67	0.41	0.44	61	66	25-135	7	20
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.67	0.67	0.38	0.39	57	58	18-133	3	20
Naphthalene	mg/kg	ND	0.67	0.67	0.40	0.43	61	65	11-130	6	20
Phenanthrene	mg/kg	ND	0.67	0.67	0.41	0.44	62	66	11-147	6	20
Pyrene	mg/kg	ND	0.67	0.67	0.46	0.48	69	72	11-154	5	20
2-Fluorobiphenyl (S)	%						60	65	16-93		
p-Terphenyl-d14 (S)	%						69	66	19-115		

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### QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375064

QC Batch: 795844

Analysis Method: SM 2540G

QC Batch Method: SM 2540G

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375064001, 50375064002, 50375064003, 50375064004, 50375064005, 50375064006, 50375064007

SAMPLE DUPLICATE: 3641533

Parameter	Units	50374902019 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.6	11.1	4	10	N2

SAMPLE DUPLICATE: 3641534

Parameter	Units	50375064002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.9	13.9	0	10	N2

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## QUALIFIERS

Project: Jasper WWTP  
Pace Project No.: 50375064

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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.

### ANALYTE QUALIFIERS

- |    |   |
|----|---|
| 1d | Neither matrix spike nor matrix precision data could be provided for this analytical batch due to insufficient sample volume.   |
| L2 | Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.  |
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.   |
| 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. |
| R1 | RPD value was outside control limits.   |
| RS | The RPD value in one of the constituent analytes was outside the control limits.  |

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Jasper WWTP

Pace Project No.: 50375064

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375064001	MW1 16-18	EPA 3050	795934	EPA 6010	796183
50375064002	MW1 18-20	EPA 3050	795934	EPA 6010	796183
50375064003	MW2 12-14	EPA 3050	795934	EPA 6010	796183
50375064004	MW2 18-20	EPA 3050	795934	EPA 6010	796183
50375064005	MW3 12-14	EPA 3050	795934	EPA 6010	796183
50375064006	MW3 18-20	EPA 3050	795934	EPA 6010	796183
50375064007	DUP	EPA 3050	795934	EPA 6010	796183
50375064001	MW1 16-18	EPA 3546	795832	EPA 8270 by SIM	796312
50375064002	MW1 18-20	EPA 3546	795832	EPA 8270 by SIM	796312
50375064003	MW2 12-14	EPA 3546	795832	EPA 8270 by SIM	796312
50375064004	MW2 18-20	EPA 3546	795832	EPA 8270 by SIM	796312
50375064005	MW3 12-14	EPA 3546	795846	EPA 8270 by SIM	796380
50375064006	MW3 18-20	EPA 3546	795930	EPA 8270 by SIM	796382
50375064007	DUP	EPA 3546	795930	EPA 8270 by SIM	796382
50375064001	MW1 16-18	EPA 8260	796149		
50375064002	MW1 18-20	EPA 8260	796357		
50375064003	MW2 12-14	EPA 8260	796149		
50375064004	MW2 18-20	EPA 8260	796250		
50375064005	MW3 12-14	EPA 8260	796250		
50375064006	MW3 18-20	EPA 8260	796250		
50375064007	DUP	EPA 8260	796250		
50375064001	MW1 16-18	SM 2540G	795844		
50375064002	MW1 18-20	SM 2540G	795844		
50375064003	MW2 12-14	SM 2540G	795844		
50375064004	MW2 18-20	SM 2540G	795844		
50375064005	MW3 12-14	SM 2540G	795844		
50375064006	MW3 18-20	SM 2540G	795844		
50375064007	DUP	SM 2540G	795844		

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: CB 6/6/24 10:49

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): 0.5/0.5 0.3/0.3    
 (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?:

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"/>	<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>Terracore</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>1110</u>		<input checked="" type="checkbox"/>	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"/>	<input checked="" type="checkbox"/>
Extra labels on Terracore Vials? (soils only)		<input checked="" type="checkbox"/>	Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>

COMMENTS:

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June 27, 2024

Jarrold Richeson  
Hinderliter Environmental  
3601 N. St. Joseph Ave  
Evansville, IN 47720

RE: Project: Jasper WWTP  
Pace Project No.: 50375808

Dear Jarrold Richeson:

Enclosed are the analytical results for sample(s) received by the laboratory on June 13, 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

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

Sincerely,

Allison Martinez  
allison.martinez@pacelabs.com  
(317)228-3118  
Project Manager

Enclosures

cc: Lindsey Gish, Hinderliter Environmental  
Reese Hartshorne, Hinderliter Environmental  
Desiree Largent, Hinderliter Environmental  
Dalton Melloy, Hinderliter Environmental  
Mark Phillips, Hinderliter  
Shawn Sullivan, Hinderliter Environmental



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## CERTIFICATIONS

Project: Jasper WWTP

Pace Project No.: 50375808

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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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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Jasper WWTP  
Pace Project No.: 50375808

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50375808001	MW-1	Water	06/12/24 10:33	06/13/24 09:35
50375808002	MW-2	Water	06/12/24 10:37	06/13/24 09:35
50375808003	MW-3	Water	06/12/24 10:34	06/13/24 09:35
50375808004	Dup	Water	06/12/24 08:00	06/13/24 09:35
50375808005	Trip Blank	Water	06/12/24 08:00	06/13/24 09:35

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### SAMPLE ANALYTE COUNT

Project: Jasper WWTP

Pace Project No.: 50375808

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50375808001	MW-1	EPA 6010	JPK	1	PASI-I
		EPA 6010	ELK	1	PASI-I
		EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	ALA	73	PASI-I
50375808002	MW-2	EPA 6010	JPK	1	PASI-I
		EPA 6010	ELK	1	PASI-I
		EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	ALA	73	PASI-I
50375808003	MW-3	EPA 6010	JPK	1	PASI-I
		EPA 6010	ELK	1	PASI-I
		EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	ALA	73	PASI-I
50375808004	Dup	EPA 6010	JPK	1	PASI-I
		EPA 6010	ELK	1	PASI-I
		EPA 8270 by SIM 40E	GRM	20	PASI-I
		EPA 8260	ALA	73	PASI-I
50375808005	Trip Blank	EPA 8260	ALA	73	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

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### SUMMARY OF DETECTION

Project: Jasper WWTP

Pace Project No.: 50375808

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>50375808001</b>	<b>MW-1</b>					
EPA 6010	Lead	6.9J	ug/L	10.0	06/21/24 02:20	
EPA 6010	Lead, Dissolved	3.7J	ug/L	10.0	06/26/24 11:08	
EPA 8260	Benzene	0.57J	ug/L	5.0	06/21/24 10:41	
<b>50375808002</b>	<b>MW-2</b>					
EPA 6010	Lead	3.5J	ug/L	10.0	06/21/24 02:22	
EPA 8260	Acetone	3.0J	ug/L	100	06/21/24 11:10	
<b>50375808003</b>	<b>MW-3</b>					
EPA 6010	Lead	12.6	ug/L	10.0	06/21/24 02:29	
EPA 8270 by SIM 40E	Acenaphthene	0.68J	ug/L	0.99	06/19/24 22:37	
EPA 8270 by SIM 40E	Anthracene	0.081J	ug/L	0.099	06/19/24 22:37	
EPA 8270 by SIM 40E	Fluoranthene	0.23J	ug/L	0.99	06/19/24 22:37	
EPA 8270 by SIM 40E	Fluorene	0.30J	ug/L	0.99	06/19/24 22:37	
EPA 8270 by SIM 40E	1-Methylnaphthalene	0.24J	ug/L	0.99	06/19/24 22:37	
EPA 8270 by SIM 40E	2-Methylnaphthalene	0.33J	ug/L	0.99	06/19/24 22:37	
EPA 8270 by SIM 40E	Naphthalene	0.46J	ug/L	0.99	06/19/24 22:37	
EPA 8270 by SIM 40E	Phenanthrene	0.63J	ug/L	0.99	06/19/24 22:37	
EPA 8270 by SIM 40E	Pyrene	0.11J	ug/L	0.99	06/19/24 22:37	
<b>50375808004</b>	<b>Dup</b>					
EPA 6010	Lead	4.5J	ug/L	10.0	06/21/24 02:34	
EPA 8260	Acetone	5.6J	ug/L	100	06/21/24 13:08	
EPA 8260	Naphthalene	0.74J	ug/L	5.0	06/21/24 13:08	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: MW-1	Lab ID: 50375808001	Collected: 06/12/24 10:33	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Pace Analytical Services - Indianapolis								
Lead	6.9J	ug/L	10.0	1	06/20/24 08:27	06/21/24 02:20	7439-92-1	
<b>6010 MET ICP, Lab Filtered</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Pace Analytical Services - Indianapolis								
Lead, Dissolved	3.7J	ug/L	10.0	1	06/23/24 20:16	06/26/24 11:08	7439-92-1	
<b>8270 PAH by 3511</b>								
Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Pace Analytical Services - Indianapolis								
Acenaphthene	<0.093	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:16	83-32-9	
Acenaphthylene	<0.072	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:16	208-96-8	
Anthracene	<0.080	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:16	120-12-7	
Benzo(a)anthracene	<0.065	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:16	56-55-3	
Benzo(a)pyrene	<0.069	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:16	50-32-8	
Benzo(b)fluoranthene	<0.065	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:16	205-99-2	
Benzo(g,h,i)perylene	<0.090	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:16	191-24-2	
Benzo(k)fluoranthene	<0.067	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:16	207-08-9	
Chrysene	<0.061	ug/L	0.50	1	06/18/24 23:50	06/19/24 22:16	218-01-9	
Dibenz(a,h)anthracene	<0.075	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:16	53-70-3	
Fluoranthene	<0.073	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:16	206-44-0	
Fluorene	<0.095	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:16	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.058	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:16	193-39-5	
1-Methylnaphthalene	<0.086	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:16	90-12-0	
2-Methylnaphthalene	<0.097	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:16	91-57-6	
Naphthalene	<0.41	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:16	91-20-3	
Phenanthrene	<0.10	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:16	85-01-8	
Pyrene	<0.098	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:16	129-00-0	
<b>Surrogates</b>								
2-Fluorobiphenyl (S)	91	%.	43-129	1	06/18/24 23:50	06/19/24 22:16	321-60-8	
p-Terphenyl-d14 (S)	132	%.	64-162	1	06/18/24 23:50	06/19/24 22:16	1718-51-0	
<b>8260/5030 MSV</b>								
Analytical Method: EPA 8260								
Pace Analytical Services - Indianapolis								
Acetone	<2.7	ug/L	100	1		06/21/24 10:41	67-64-1	
Acrolein	<3.5	ug/L	50.0	1		06/21/24 10:41	107-02-8	
Acrylonitrile	<1.1	ug/L	100	1		06/21/24 10:41	107-13-1	
Benzene	0.57J	ug/L	5.0	1		06/21/24 10:41	71-43-2	
Bromobenzene	<0.25	ug/L	5.0	1		06/21/24 10:41	108-86-1	
Bromochloromethane	<0.24	ug/L	5.0	1		06/21/24 10:41	74-97-5	
Bromodichloromethane	<0.26	ug/L	5.0	1		06/21/24 10:41	75-27-4	
Bromoform	<0.29	ug/L	5.0	1		06/21/24 10:41	75-25-2	
Bromomethane	<0.75	ug/L	5.0	1		06/21/24 10:41	74-83-9	
2-Butanone (MEK)	<1.6	ug/L	25.0	1		06/21/24 10:41	78-93-3	
n-Butylbenzene	<0.23	ug/L	5.0	1		06/21/24 10:41	104-51-8	
sec-Butylbenzene	<0.24	ug/L	5.0	1		06/21/24 10:41	135-98-8	
tert-Butylbenzene	<0.21	ug/L	5.0	1		06/21/24 10:41	98-06-6	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: MW-1	Lab ID: 50375808001	Collected: 06/12/24 10:33	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5030 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis							
Carbon disulfide	<0.26	ug/L	10.0	1		06/21/24 10:41	75-15-0	
Carbon tetrachloride	<0.22	ug/L	5.0	1		06/21/24 10:41	56-23-5	
Chlorobenzene	<0.20	ug/L	5.0	1		06/21/24 10:41	108-90-7	
Chloroethane	<0.47	ug/L	5.0	1		06/21/24 10:41	75-00-3	
Chloroform	<0.31	ug/L	5.0	1		06/21/24 10:41	67-66-3	
Chloromethane	<0.18	ug/L	5.0	1		06/21/24 10:41	74-87-3	
2-Chlorotoluene	<0.24	ug/L	5.0	1		06/21/24 10:41	95-49-8	
4-Chlorotoluene	<0.26	ug/L	5.0	1		06/21/24 10:41	106-43-4	
Dibromochloromethane	<0.23	ug/L	5.0	1		06/21/24 10:41	124-48-1	
1,2-Dibromoethane (EDB)	<0.25	ug/L	5.0	1		06/21/24 10:41	106-93-4	
Dibromomethane	<0.24	ug/L	5.0	1		06/21/24 10:41	74-95-3	
1,2-Dichlorobenzene	<0.22	ug/L	5.0	1		06/21/24 10:41	95-50-1	
1,3-Dichlorobenzene	<0.23	ug/L	5.0	1		06/21/24 10:41	541-73-1	
1,4-Dichlorobenzene	<0.28	ug/L	5.0	1		06/21/24 10:41	106-46-7	
trans-1,4-Dichloro-2-butene	<0.46	ug/L	100	1		06/21/24 10:41	110-57-6	
Dichlorodifluoromethane	<0.42	ug/L	5.0	1		06/21/24 10:41	75-71-8	
1,1-Dichloroethane	<0.18	ug/L	5.0	1		06/21/24 10:41	75-34-3	
1,2-Dichloroethane	<0.20	ug/L	5.0	1		06/21/24 10:41	107-06-2	
1,1-Dichloroethene	<0.22	ug/L	5.0	1		06/21/24 10:41	75-35-4	
cis-1,2-Dichloroethene	<0.28	ug/L	5.0	1		06/21/24 10:41	156-59-2	
trans-1,2-Dichloroethene	<0.32	ug/L	5.0	1		06/21/24 10:41	156-60-5	
1,2-Dichloropropane	<0.22	ug/L	5.0	1		06/21/24 10:41	78-87-5	
1,3-Dichloropropane	<0.20	ug/L	5.0	1		06/21/24 10:41	142-28-9	
2,2-Dichloropropane	<0.30	ug/L	5.0	1		06/21/24 10:41	594-20-7	
1,1-Dichloropropene	<0.22	ug/L	5.0	1		06/21/24 10:41	563-58-6	
cis-1,3-Dichloropropene	<0.23	ug/L	5.0	1		06/21/24 10:41	10061-01-5	
trans-1,3-Dichloropropene	<0.27	ug/L	5.0	1		06/21/24 10:41	10061-02-6	
Ethylbenzene	<0.22	ug/L	5.0	1		06/21/24 10:41	100-41-4	
Ethyl methacrylate	<0.29	ug/L	100	1		06/21/24 10:41	97-63-2	
Hexachloro-1,3-butadiene	<0.28	ug/L	5.0	1		06/21/24 10:41	87-68-3	
n-Hexane	<0.30	ug/L	5.0	1		06/21/24 10:41	110-54-3	
2-Hexanone	<1.1	ug/L	25.0	1		06/21/24 10:41	591-78-6	
Iodomethane	<0.39	ug/L	10.0	1		06/21/24 10:41	74-88-4	
Isopropylbenzene (Cumene)	<0.25	ug/L	5.0	1		06/21/24 10:41	98-82-8	
p-Isopropyltoluene	<0.24	ug/L	5.0	1		06/21/24 10:41	99-87-6	
Methylene Chloride	<1.0	ug/L	5.0	1		06/21/24 10:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.92	ug/L	25.0	1		06/21/24 10:41	108-10-1	
Methyl-tert-butyl ether	<0.21	ug/L	4.0	1		06/21/24 10:41	1634-04-4	
Naphthalene	<0.44	ug/L	5.0	1		06/21/24 10:41	91-20-3	
n-Propylbenzene	<0.25	ug/L	5.0	1		06/21/24 10:41	103-65-1	
Styrene	<0.23	ug/L	5.0	1		06/21/24 10:41	100-42-5	
1,1,1,2-Tetrachloroethane	<0.22	ug/L	5.0	1		06/21/24 10:41	630-20-6	
1,1,2,2-Tetrachloroethane	<0.23	ug/L	5.0	1		06/21/24 10:41	79-34-5	
Tetrachloroethene	<0.16	ug/L	5.0	1		06/21/24 10:41	127-18-4	
Toluene	<0.35	ug/L	5.0	1		06/21/24 10:41	108-88-3	
1,2,3-Trichlorobenzene	<0.25	ug/L	5.0	1		06/21/24 10:41	87-61-6	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: MW-1	Lab ID: 50375808001	Collected: 06/12/24 10:33	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5030 MSV</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
1,2,4-Trichlorobenzene	<0.22	ug/L	5.0	1		06/21/24 10:41	120-82-1	
1,1,1-Trichloroethane	<0.21	ug/L	5.0	1		06/21/24 10:41	71-55-6	
1,1,2-Trichloroethane	<0.28	ug/L	5.0	1		06/21/24 10:41	79-00-5	
Trichloroethene	<0.54	ug/L	5.0	1		06/21/24 10:41	79-01-6	
Trichlorofluoromethane	<0.23	ug/L	5.0	1		06/21/24 10:41	75-69-4	
1,2,3-Trichloropropane	<0.37	ug/L	5.0	1		06/21/24 10:41	96-18-4	
1,2,4-Trimethylbenzene	<0.25	ug/L	5.0	1		06/21/24 10:41	95-63-6	
1,3,5-Trimethylbenzene	<0.27	ug/L	5.0	1		06/21/24 10:41	108-67-8	
Vinyl acetate	<0.45	ug/L	50.0	1		06/21/24 10:41	108-05-4	L1
Vinyl chloride	<0.30	ug/L	2.0	1		06/21/24 10:41	75-01-4	
Xylene (Total)	<0.25	ug/L	10.0	1		06/21/24 10:41	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102	%	82-128	1		06/21/24 10:41	1868-53-7	
4-Bromofluorobenzene (S)	102	%	79-124	1		06/21/24 10:41	460-00-4	
Toluene-d8 (S)	101	%	73-122	1		06/21/24 10:41	2037-26-5	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: MW-2	Lab ID: 50375808002	Collected: 06/12/24 10:37	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Pace Analytical Services - Indianapolis								
Lead	3.5J	ug/L	10.0	1	06/20/24 08:27	06/21/24 02:22	7439-92-1	
<b>6010 MET ICP, Lab Filtered</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Pace Analytical Services - Indianapolis								
Lead, Dissolved	<2.5	ug/L	10.0	1	06/23/24 20:16	06/26/24 11:10	7439-92-1	
<b>8270 PAH by 3511</b>								
Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Pace Analytical Services - Indianapolis								
Acenaphthene	<0.093	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:26	83-32-9	
Acenaphthylene	<0.072	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:26	208-96-8	
Anthracene	<0.080	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:26	120-12-7	
Benzo(a)anthracene	<0.065	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:26	56-55-3	
Benzo(a)pyrene	<0.069	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:26	50-32-8	
Benzo(b)fluoranthene	<0.065	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:26	205-99-2	
Benzo(g,h,i)perylene	<0.090	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:26	191-24-2	
Benzo(k)fluoranthene	<0.067	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:26	207-08-9	
Chrysene	<0.061	ug/L	0.50	1	06/18/24 23:50	06/19/24 22:26	218-01-9	
Dibenz(a,h)anthracene	<0.075	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:26	53-70-3	
Fluoranthene	<0.073	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:26	206-44-0	
Fluorene	<0.095	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:26	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.058	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:26	193-39-5	
1-Methylnaphthalene	<0.086	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:26	90-12-0	
2-Methylnaphthalene	<0.097	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:26	91-57-6	
Naphthalene	<0.41	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:26	91-20-3	
Phenanthrene	<0.10	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:26	85-01-8	
Pyrene	<0.098	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:26	129-00-0	
<b>Surrogates</b>								
2-Fluorobiphenyl (S)	99	%.	43-129	1	06/18/24 23:50	06/19/24 22:26	321-60-8	
p-Terphenyl-d14 (S)	134	%.	64-162	1	06/18/24 23:50	06/19/24 22:26	1718-51-0	
<b>8260/5030 MSV</b>								
Analytical Method: EPA 8260								
Pace Analytical Services - Indianapolis								
Acetone	3.0J	ug/L	100	1		06/21/24 11:10	67-64-1	
Acrolein	<3.5	ug/L	50.0	1		06/21/24 11:10	107-02-8	
Acrylonitrile	<1.1	ug/L	100	1		06/21/24 11:10	107-13-1	
Benzene	<0.20	ug/L	5.0	1		06/21/24 11:10	71-43-2	
Bromobenzene	<0.25	ug/L	5.0	1		06/21/24 11:10	108-86-1	
Bromochloromethane	<0.24	ug/L	5.0	1		06/21/24 11:10	74-97-5	
Bromodichloromethane	<0.26	ug/L	5.0	1		06/21/24 11:10	75-27-4	
Bromoform	<0.29	ug/L	5.0	1		06/21/24 11:10	75-25-2	
Bromomethane	<0.75	ug/L	5.0	1		06/21/24 11:10	74-83-9	
2-Butanone (MEK)	<1.6	ug/L	25.0	1		06/21/24 11:10	78-93-3	
n-Butylbenzene	<0.23	ug/L	5.0	1		06/21/24 11:10	104-51-8	
sec-Butylbenzene	<0.24	ug/L	5.0	1		06/21/24 11:10	135-98-8	
tert-Butylbenzene	<0.21	ug/L	5.0	1		06/21/24 11:10	98-06-6	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: MW-2	Lab ID: 50375808002	Collected: 06/12/24 10:37	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5030 MSV</b>	Analytical Method: EPA 8260							
	Pace Analytical Services - Indianapolis							
Carbon disulfide	<0.26	ug/L	10.0	1		06/21/24 11:10	75-15-0	
Carbon tetrachloride	<0.22	ug/L	5.0	1		06/21/24 11:10	56-23-5	
Chlorobenzene	<0.20	ug/L	5.0	1		06/21/24 11:10	108-90-7	
Chloroethane	<0.47	ug/L	5.0	1		06/21/24 11:10	75-00-3	
Chloroform	<0.31	ug/L	5.0	1		06/21/24 11:10	67-66-3	
Chloromethane	<0.18	ug/L	5.0	1		06/21/24 11:10	74-87-3	
2-Chlorotoluene	<0.24	ug/L	5.0	1		06/21/24 11:10	95-49-8	
4-Chlorotoluene	<0.26	ug/L	5.0	1		06/21/24 11:10	106-43-4	
Dibromochloromethane	<0.23	ug/L	5.0	1		06/21/24 11:10	124-48-1	
1,2-Dibromoethane (EDB)	<0.25	ug/L	5.0	1		06/21/24 11:10	106-93-4	
Dibromomethane	<0.24	ug/L	5.0	1		06/21/24 11:10	74-95-3	
1,2-Dichlorobenzene	<0.22	ug/L	5.0	1		06/21/24 11:10	95-50-1	
1,3-Dichlorobenzene	<0.23	ug/L	5.0	1		06/21/24 11:10	541-73-1	
1,4-Dichlorobenzene	<0.28	ug/L	5.0	1		06/21/24 11:10	106-46-7	
trans-1,4-Dichloro-2-butene	<0.46	ug/L	100	1		06/21/24 11:10	110-57-6	
Dichlorodifluoromethane	<0.42	ug/L	5.0	1		06/21/24 11:10	75-71-8	
1,1-Dichloroethane	<0.18	ug/L	5.0	1		06/21/24 11:10	75-34-3	
1,2-Dichloroethane	<0.20	ug/L	5.0	1		06/21/24 11:10	107-06-2	
1,1-Dichloroethene	<0.22	ug/L	5.0	1		06/21/24 11:10	75-35-4	
cis-1,2-Dichloroethene	<0.28	ug/L	5.0	1		06/21/24 11:10	156-59-2	
trans-1,2-Dichloroethene	<0.32	ug/L	5.0	1		06/21/24 11:10	156-60-5	
1,2-Dichloropropane	<0.22	ug/L	5.0	1		06/21/24 11:10	78-87-5	
1,3-Dichloropropane	<0.20	ug/L	5.0	1		06/21/24 11:10	142-28-9	
2,2-Dichloropropane	<0.30	ug/L	5.0	1		06/21/24 11:10	594-20-7	
1,1-Dichloropropene	<0.22	ug/L	5.0	1		06/21/24 11:10	563-58-6	
cis-1,3-Dichloropropene	<0.23	ug/L	5.0	1		06/21/24 11:10	10061-01-5	
trans-1,3-Dichloropropene	<0.27	ug/L	5.0	1		06/21/24 11:10	10061-02-6	
Ethylbenzene	<0.22	ug/L	5.0	1		06/21/24 11:10	100-41-4	
Ethyl methacrylate	<0.29	ug/L	100	1		06/21/24 11:10	97-63-2	
Hexachloro-1,3-butadiene	<0.28	ug/L	5.0	1		06/21/24 11:10	87-68-3	
n-Hexane	<0.30	ug/L	5.0	1		06/21/24 11:10	110-54-3	
2-Hexanone	<1.1	ug/L	25.0	1		06/21/24 11:10	591-78-6	
Iodomethane	<0.39	ug/L	10.0	1		06/21/24 11:10	74-88-4	
Isopropylbenzene (Cumene)	<0.25	ug/L	5.0	1		06/21/24 11:10	98-82-8	
p-Isopropyltoluene	<0.24	ug/L	5.0	1		06/21/24 11:10	99-87-6	
Methylene Chloride	<1.0	ug/L	5.0	1		06/21/24 11:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.92	ug/L	25.0	1		06/21/24 11:10	108-10-1	
Methyl-tert-butyl ether	<0.21	ug/L	4.0	1		06/21/24 11:10	1634-04-4	
Naphthalene	<0.44	ug/L	5.0	1		06/21/24 11:10	91-20-3	
n-Propylbenzene	<0.25	ug/L	5.0	1		06/21/24 11:10	103-65-1	
Styrene	<0.23	ug/L	5.0	1		06/21/24 11:10	100-42-5	
1,1,1,2-Tetrachloroethane	<0.22	ug/L	5.0	1		06/21/24 11:10	630-20-6	
1,1,2,2-Tetrachloroethane	<0.23	ug/L	5.0	1		06/21/24 11:10	79-34-5	
Tetrachloroethene	<0.16	ug/L	5.0	1		06/21/24 11:10	127-18-4	
Toluene	<0.35	ug/L	5.0	1		06/21/24 11:10	108-88-3	
1,2,3-Trichlorobenzene	<0.25	ug/L	5.0	1		06/21/24 11:10	87-61-6	

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**ANALYTICAL RESULTS**

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: MW-2	Lab ID: 50375808002	Collected: 06/12/24 10:37	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5030 MSV</b>		Analytical Method: EPA 8260						
		Pace Analytical Services - Indianapolis						
1,2,4-Trichlorobenzene	<0.22	ug/L	5.0	1		06/21/24 11:10	120-82-1	
1,1,1-Trichloroethane	<0.21	ug/L	5.0	1		06/21/24 11:10	71-55-6	
1,1,2-Trichloroethane	<0.28	ug/L	5.0	1		06/21/24 11:10	79-00-5	
Trichloroethene	<0.54	ug/L	5.0	1		06/21/24 11:10	79-01-6	
Trichlorofluoromethane	<0.23	ug/L	5.0	1		06/21/24 11:10	75-69-4	
1,2,3-Trichloropropane	<0.37	ug/L	5.0	1		06/21/24 11:10	96-18-4	
1,2,4-Trimethylbenzene	<0.25	ug/L	5.0	1		06/21/24 11:10	95-63-6	
1,3,5-Trimethylbenzene	<0.27	ug/L	5.0	1		06/21/24 11:10	108-67-8	
Vinyl acetate	<0.45	ug/L	50.0	1		06/21/24 11:10	108-05-4	L1
Vinyl chloride	<0.30	ug/L	2.0	1		06/21/24 11:10	75-01-4	
Xylene (Total)	<0.25	ug/L	10.0	1		06/21/24 11:10	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	101	%.	82-128	1		06/21/24 11:10	1868-53-7	
4-Bromofluorobenzene (S)	101	%.	79-124	1		06/21/24 11:10	460-00-4	
Toluene-d8 (S)	100	%.	73-122	1		06/21/24 11:10	2037-26-5	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: MW-3	Lab ID: 50375808003	Collected: 06/12/24 10:34	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Pace Analytical Services - Indianapolis								
Lead	12.6	ug/L	10.0	1	06/20/24 08:27	06/21/24 02:29	7439-92-1	
<b>6010 MET ICP, Lab Filtered</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Pace Analytical Services - Indianapolis								
Lead, Dissolved	<2.5	ug/L	10.0	1	06/23/24 20:16	06/26/24 11:12	7439-92-1	
<b>8270 PAH by 3511</b>								
Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Pace Analytical Services - Indianapolis								
Acenaphthene	0.68J	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:37	83-32-9	
Acenaphthylene	<0.072	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:37	208-96-8	
Anthracene	0.081J	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:37	120-12-7	
Benzo(a)anthracene	<0.064	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:37	56-55-3	
Benzo(a)pyrene	<0.069	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:37	50-32-8	
Benzo(b)fluoranthene	<0.064	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:37	205-99-2	
Benzo(g,h,i)perylene	<0.090	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:37	191-24-2	
Benzo(k)fluoranthene	<0.067	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:37	207-08-9	
Chrysene	<0.060	ug/L	0.50	1	06/18/24 23:50	06/19/24 22:37	218-01-9	
Dibenz(a,h)anthracene	<0.075	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:37	53-70-3	
Fluoranthene	0.23J	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:37	206-44-0	
Fluorene	0.30J	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:37	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.057	ug/L	0.099	1	06/18/24 23:50	06/19/24 22:37	193-39-5	
1-Methylnaphthalene	0.24J	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:37	90-12-0	
2-Methylnaphthalene	0.33J	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:37	91-57-6	
Naphthalene	0.46J	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:37	91-20-3	
Phenanthrene	0.63J	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:37	85-01-8	
Pyrene	0.11J	ug/L	0.99	1	06/18/24 23:50	06/19/24 22:37	129-00-0	
<b>Surrogates</b>								
2-Fluorobiphenyl (S)	93	%.	43-129	1	06/18/24 23:50	06/19/24 22:37	321-60-8	
p-Terphenyl-d14 (S)	142	%.	64-162	1	06/18/24 23:50	06/19/24 22:37	1718-51-0	
<b>8260/5030 MSV</b>								
Analytical Method: EPA 8260								
Pace Analytical Services - Indianapolis								
Acetone	<2.7	ug/L	100	1		06/21/24 11:40	67-64-1	
Acrolein	<3.5	ug/L	50.0	1		06/21/24 11:40	107-02-8	
Acrylonitrile	<1.1	ug/L	100	1		06/21/24 11:40	107-13-1	
Benzene	<0.20	ug/L	5.0	1		06/21/24 11:40	71-43-2	
Bromobenzene	<0.25	ug/L	5.0	1		06/21/24 11:40	108-86-1	
Bromochloromethane	<0.24	ug/L	5.0	1		06/21/24 11:40	74-97-5	
Bromodichloromethane	<0.26	ug/L	5.0	1		06/21/24 11:40	75-27-4	
Bromoform	<0.29	ug/L	5.0	1		06/21/24 11:40	75-25-2	
Bromomethane	<0.75	ug/L	5.0	1		06/21/24 11:40	74-83-9	R1
2-Butanone (MEK)	<1.6	ug/L	25.0	1		06/21/24 11:40	78-93-3	
n-Butylbenzene	<0.23	ug/L	5.0	1		06/21/24 11:40	104-51-8	
sec-Butylbenzene	<0.24	ug/L	5.0	1		06/21/24 11:40	135-98-8	
tert-Butylbenzene	<0.21	ug/L	5.0	1		06/21/24 11:40	98-06-6	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: MW-3	Lab ID: 50375808003	Collected: 06/12/24 10:34	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5030 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis							
Carbon disulfide	<0.26	ug/L	10.0	1		06/21/24 11:40	75-15-0	
Carbon tetrachloride	<0.22	ug/L	5.0	1		06/21/24 11:40	56-23-5	
Chlorobenzene	<0.20	ug/L	5.0	1		06/21/24 11:40	108-90-7	
Chloroethane	<0.47	ug/L	5.0	1		06/21/24 11:40	75-00-3	
Chloroform	<0.31	ug/L	5.0	1		06/21/24 11:40	67-66-3	
Chloromethane	<0.18	ug/L	5.0	1		06/21/24 11:40	74-87-3	
2-Chlorotoluene	<0.24	ug/L	5.0	1		06/21/24 11:40	95-49-8	
4-Chlorotoluene	<0.26	ug/L	5.0	1		06/21/24 11:40	106-43-4	
Dibromochloromethane	<0.23	ug/L	5.0	1		06/21/24 11:40	124-48-1	
1,2-Dibromoethane (EDB)	<0.25	ug/L	5.0	1		06/21/24 11:40	106-93-4	
Dibromomethane	<0.24	ug/L	5.0	1		06/21/24 11:40	74-95-3	
1,2-Dichlorobenzene	<0.22	ug/L	5.0	1		06/21/24 11:40	95-50-1	
1,3-Dichlorobenzene	<0.23	ug/L	5.0	1		06/21/24 11:40	541-73-1	
1,4-Dichlorobenzene	<0.28	ug/L	5.0	1		06/21/24 11:40	106-46-7	
trans-1,4-Dichloro-2-butene	<0.46	ug/L	100	1		06/21/24 11:40	110-57-6	
Dichlorodifluoromethane	<0.42	ug/L	5.0	1		06/21/24 11:40	75-71-8	
1,1-Dichloroethane	<0.18	ug/L	5.0	1		06/21/24 11:40	75-34-3	
1,2-Dichloroethane	<0.20	ug/L	5.0	1		06/21/24 11:40	107-06-2	
1,1-Dichloroethene	<0.22	ug/L	5.0	1		06/21/24 11:40	75-35-4	
cis-1,2-Dichloroethene	<0.28	ug/L	5.0	1		06/21/24 11:40	156-59-2	
trans-1,2-Dichloroethene	<0.32	ug/L	5.0	1		06/21/24 11:40	156-60-5	
1,2-Dichloropropane	<0.22	ug/L	5.0	1		06/21/24 11:40	78-87-5	
1,3-Dichloropropane	<0.20	ug/L	5.0	1		06/21/24 11:40	142-28-9	
2,2-Dichloropropane	<0.30	ug/L	5.0	1		06/21/24 11:40	594-20-7	
1,1-Dichloropropene	<0.22	ug/L	5.0	1		06/21/24 11:40	563-58-6	
cis-1,3-Dichloropropene	<0.23	ug/L	5.0	1		06/21/24 11:40	10061-01-5	
trans-1,3-Dichloropropene	<0.27	ug/L	5.0	1		06/21/24 11:40	10061-02-6	
Ethylbenzene	<0.22	ug/L	5.0	1		06/21/24 11:40	100-41-4	
Ethyl methacrylate	<0.29	ug/L	100	1		06/21/24 11:40	97-63-2	
Hexachloro-1,3-butadiene	<0.28	ug/L	5.0	1		06/21/24 11:40	87-68-3	
n-Hexane	<0.30	ug/L	5.0	1		06/21/24 11:40	110-54-3	
2-Hexanone	<1.1	ug/L	25.0	1		06/21/24 11:40	591-78-6	
Iodomethane	<0.39	ug/L	10.0	1		06/21/24 11:40	74-88-4	R1
Isopropylbenzene (Cumene)	<0.25	ug/L	5.0	1		06/21/24 11:40	98-82-8	
p-Isopropyltoluene	<0.24	ug/L	5.0	1		06/21/24 11:40	99-87-6	
Methylene Chloride	<1.0	ug/L	5.0	1		06/21/24 11:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.92	ug/L	25.0	1		06/21/24 11:40	108-10-1	
Methyl-tert-butyl ether	<0.21	ug/L	4.0	1		06/21/24 11:40	1634-04-4	
Naphthalene	<0.44	ug/L	5.0	1		06/21/24 11:40	91-20-3	
n-Propylbenzene	<0.25	ug/L	5.0	1		06/21/24 11:40	103-65-1	
Styrene	<0.23	ug/L	5.0	1		06/21/24 11:40	100-42-5	
1,1,1,2-Tetrachloroethane	<0.22	ug/L	5.0	1		06/21/24 11:40	630-20-6	
1,1,2,2-Tetrachloroethane	<0.23	ug/L	5.0	1		06/21/24 11:40	79-34-5	
Tetrachloroethene	<0.16	ug/L	5.0	1		06/21/24 11:40	127-18-4	
Toluene	<0.35	ug/L	5.0	1		06/21/24 11:40	108-88-3	
1,2,3-Trichlorobenzene	<0.25	ug/L	5.0	1		06/21/24 11:40	87-61-6	

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### ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: MW-3 Lab ID: 50375808003 Collected: 06/12/24 10:34 Received: 06/13/24 09:35 Matrix: Water

Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5030 MSV</b>		Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis						
1,2,4-Trichlorobenzene	<0.22	ug/L	5.0	1		06/21/24 11:40	120-82-1	
1,1,1-Trichloroethane	<0.21	ug/L	5.0	1		06/21/24 11:40	71-55-6	
1,1,2-Trichloroethane	<0.28	ug/L	5.0	1		06/21/24 11:40	79-00-5	
Trichloroethene	<0.54	ug/L	5.0	1		06/21/24 11:40	79-01-6	
Trichlorofluoromethane	<0.23	ug/L	5.0	1		06/21/24 11:40	75-69-4	
1,2,3-Trichloropropane	<0.37	ug/L	5.0	1		06/21/24 11:40	96-18-4	
1,2,4-Trimethylbenzene	<0.25	ug/L	5.0	1		06/21/24 11:40	95-63-6	
1,3,5-Trimethylbenzene	<0.27	ug/L	5.0	1		06/21/24 11:40	108-67-8	
Vinyl acetate	<0.45	ug/L	50.0	1		06/21/24 11:40	108-05-4	L1
Vinyl chloride	<0.30	ug/L	2.0	1		06/21/24 11:40	75-01-4	
Xylene (Total)	<0.25	ug/L	10.0	1		06/21/24 11:40	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	101	%.	82-128	1		06/21/24 11:40	1868-53-7	
4-Bromofluorobenzene (S)	101	%.	79-124	1		06/21/24 11:40	460-00-4	
Toluene-d8 (S)	100	%.	73-122	1		06/21/24 11:40	2037-26-5	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: Dup	Lab ID: 50375808004	Collected: 06/12/24 08:00	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Pace Analytical Services - Indianapolis								
Lead	4.5J	ug/L	10.0	1	06/20/24 08:27	06/21/24 02:34	7439-92-1	
<b>6010 MET ICP, Lab Filtered</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Pace Analytical Services - Indianapolis								
Lead, Dissolved	<2.5	ug/L	10.0	1	06/23/24 20:16	06/26/24 11:24	7439-92-1	
<b>8270 PAH by 3511</b>								
Analytical Method: EPA 8270 by SIM 40E Preparation Method: EPA 3511								
Pace Analytical Services - Indianapolis								
Acenaphthene	<0.093	ug/L	0.99	1	06/18/24 23:50	06/19/24 23:09	83-32-9	
Acenaphthylene	<0.072	ug/L	0.99	1	06/18/24 23:50	06/19/24 23:09	208-96-8	
Anthracene	<0.080	ug/L	0.099	1	06/18/24 23:50	06/19/24 23:09	120-12-7	
Benzo(a)anthracene	<0.064	ug/L	0.099	1	06/18/24 23:50	06/19/24 23:09	56-55-3	
Benzo(a)pyrene	<0.069	ug/L	0.099	1	06/18/24 23:50	06/19/24 23:09	50-32-8	
Benzo(b)fluoranthene	<0.064	ug/L	0.099	1	06/18/24 23:50	06/19/24 23:09	205-99-2	
Benzo(g,h,i)perylene	<0.090	ug/L	0.099	1	06/18/24 23:50	06/19/24 23:09	191-24-2	
Benzo(k)fluoranthene	<0.067	ug/L	0.099	1	06/18/24 23:50	06/19/24 23:09	207-08-9	
Chrysene	<0.060	ug/L	0.49	1	06/18/24 23:50	06/19/24 23:09	218-01-9	
Dibenz(a,h)anthracene	<0.075	ug/L	0.099	1	06/18/24 23:50	06/19/24 23:09	53-70-3	
Fluoranthene	<0.073	ug/L	0.99	1	06/18/24 23:50	06/19/24 23:09	206-44-0	
Fluorene	<0.095	ug/L	0.99	1	06/18/24 23:50	06/19/24 23:09	86-73-7	
Indeno(1,2,3-cd)pyrene	<0.057	ug/L	0.099	1	06/18/24 23:50	06/19/24 23:09	193-39-5	
1-Methylnaphthalene	<0.086	ug/L	0.99	1	06/18/24 23:50	06/19/24 23:09	90-12-0	
2-Methylnaphthalene	<0.097	ug/L	0.99	1	06/18/24 23:50	06/19/24 23:09	91-57-6	
Naphthalene	<0.40	ug/L	0.99	1	06/18/24 23:50	06/19/24 23:09	91-20-3	
Phenanthrene	<0.10	ug/L	0.99	1	06/18/24 23:50	06/19/24 23:09	85-01-8	
Pyrene	<0.098	ug/L	0.99	1	06/18/24 23:50	06/19/24 23:09	129-00-0	
<b>Surrogates</b>								
2-Fluorobiphenyl (S)	105	%.	43-129	1	06/18/24 23:50	06/19/24 23:09	321-60-8	
p-Terphenyl-d14 (S)	139	%.	64-162	1	06/18/24 23:50	06/19/24 23:09	1718-51-0	
<b>8260/5030 MSV</b>								
Analytical Method: EPA 8260								
Pace Analytical Services - Indianapolis								
Acetone	5.6J	ug/L	100	1		06/21/24 13:08	67-64-1	
Acrolein	<3.5	ug/L	50.0	1		06/21/24 13:08	107-02-8	
Acrylonitrile	<1.1	ug/L	100	1		06/21/24 13:08	107-13-1	
Benzene	<0.20	ug/L	5.0	1		06/21/24 13:08	71-43-2	
Bromobenzene	<0.25	ug/L	5.0	1		06/21/24 13:08	108-86-1	
Bromochloromethane	<0.24	ug/L	5.0	1		06/21/24 13:08	74-97-5	
Bromodichloromethane	<0.26	ug/L	5.0	1		06/21/24 13:08	75-27-4	
Bromoform	<0.29	ug/L	5.0	1		06/21/24 13:08	75-25-2	
Bromomethane	<0.75	ug/L	5.0	1		06/21/24 13:08	74-83-9	
2-Butanone (MEK)	<1.6	ug/L	25.0	1		06/21/24 13:08	78-93-3	
n-Butylbenzene	<0.23	ug/L	5.0	1		06/21/24 13:08	104-51-8	
sec-Butylbenzene	<0.24	ug/L	5.0	1		06/21/24 13:08	135-98-8	
tert-Butylbenzene	<0.21	ug/L	5.0	1		06/21/24 13:08	98-06-6	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: Dup	Lab ID: 50375808004	Collected: 06/12/24 08:00	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5030 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis							
Carbon disulfide	<0.26	ug/L	10.0	1		06/21/24 13:08	75-15-0	
Carbon tetrachloride	<0.22	ug/L	5.0	1		06/21/24 13:08	56-23-5	
Chlorobenzene	<0.20	ug/L	5.0	1		06/21/24 13:08	108-90-7	
Chloroethane	<0.47	ug/L	5.0	1		06/21/24 13:08	75-00-3	
Chloroform	<0.31	ug/L	5.0	1		06/21/24 13:08	67-66-3	
Chloromethane	<0.18	ug/L	5.0	1		06/21/24 13:08	74-87-3	
2-Chlorotoluene	<0.24	ug/L	5.0	1		06/21/24 13:08	95-49-8	
4-Chlorotoluene	<0.26	ug/L	5.0	1		06/21/24 13:08	106-43-4	
Dibromochloromethane	<0.23	ug/L	5.0	1		06/21/24 13:08	124-48-1	
1,2-Dibromoethane (EDB)	<0.25	ug/L	5.0	1		06/21/24 13:08	106-93-4	
Dibromomethane	<0.24	ug/L	5.0	1		06/21/24 13:08	74-95-3	
1,2-Dichlorobenzene	<0.22	ug/L	5.0	1		06/21/24 13:08	95-50-1	
1,3-Dichlorobenzene	<0.23	ug/L	5.0	1		06/21/24 13:08	541-73-1	
1,4-Dichlorobenzene	<0.28	ug/L	5.0	1		06/21/24 13:08	106-46-7	
trans-1,4-Dichloro-2-butene	<0.46	ug/L	100	1		06/21/24 13:08	110-57-6	
Dichlorodifluoromethane	<0.42	ug/L	5.0	1		06/21/24 13:08	75-71-8	
1,1-Dichloroethane	<0.18	ug/L	5.0	1		06/21/24 13:08	75-34-3	
1,2-Dichloroethane	<0.20	ug/L	5.0	1		06/21/24 13:08	107-06-2	
1,1-Dichloroethene	<0.22	ug/L	5.0	1		06/21/24 13:08	75-35-4	
cis-1,2-Dichloroethene	<0.28	ug/L	5.0	1		06/21/24 13:08	156-59-2	
trans-1,2-Dichloroethene	<0.32	ug/L	5.0	1		06/21/24 13:08	156-60-5	
1,2-Dichloropropane	<0.22	ug/L	5.0	1		06/21/24 13:08	78-87-5	
1,3-Dichloropropane	<0.20	ug/L	5.0	1		06/21/24 13:08	142-28-9	
2,2-Dichloropropane	<0.30	ug/L	5.0	1		06/21/24 13:08	594-20-7	
1,1-Dichloropropene	<0.22	ug/L	5.0	1		06/21/24 13:08	563-58-6	
cis-1,3-Dichloropropene	<0.23	ug/L	5.0	1		06/21/24 13:08	10061-01-5	
trans-1,3-Dichloropropene	<0.27	ug/L	5.0	1		06/21/24 13:08	10061-02-6	
Ethylbenzene	<0.22	ug/L	5.0	1		06/21/24 13:08	100-41-4	
Ethyl methacrylate	<0.29	ug/L	100	1		06/21/24 13:08	97-63-2	
Hexachloro-1,3-butadiene	<0.28	ug/L	5.0	1		06/21/24 13:08	87-68-3	
n-Hexane	<0.30	ug/L	5.0	1		06/21/24 13:08	110-54-3	
2-Hexanone	<1.1	ug/L	25.0	1		06/21/24 13:08	591-78-6	
Iodomethane	<0.39	ug/L	10.0	1		06/21/24 13:08	74-88-4	
Isopropylbenzene (Cumene)	<0.25	ug/L	5.0	1		06/21/24 13:08	98-82-8	
p-Isopropyltoluene	<0.24	ug/L	5.0	1		06/21/24 13:08	99-87-6	
Methylene Chloride	<1.0	ug/L	5.0	1		06/21/24 13:08	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.92	ug/L	25.0	1		06/21/24 13:08	108-10-1	
Methyl-tert-butyl ether	<0.21	ug/L	4.0	1		06/21/24 13:08	1634-04-4	
Naphthalene	0.74J	ug/L	5.0	1		06/21/24 13:08	91-20-3	
n-Propylbenzene	<0.25	ug/L	5.0	1		06/21/24 13:08	103-65-1	
Styrene	<0.23	ug/L	5.0	1		06/21/24 13:08	100-42-5	
1,1,1,2-Tetrachloroethane	<0.22	ug/L	5.0	1		06/21/24 13:08	630-20-6	
1,1,2,2-Tetrachloroethane	<0.23	ug/L	5.0	1		06/21/24 13:08	79-34-5	
Tetrachloroethene	<0.16	ug/L	5.0	1		06/21/24 13:08	127-18-4	
Toluene	<0.35	ug/L	5.0	1		06/21/24 13:08	108-88-3	
1,2,3-Trichlorobenzene	<0.25	ug/L	5.0	1		06/21/24 13:08	87-61-6	

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### ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: Dup	Lab ID: 50375808004	Collected: 06/12/24 08:00	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5030 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis							
1,2,4-Trichlorobenzene	<0.22	ug/L	5.0	1		06/21/24 13:08	120-82-1	
1,1,1-Trichloroethane	<0.21	ug/L	5.0	1		06/21/24 13:08	71-55-6	
1,1,2-Trichloroethane	<0.28	ug/L	5.0	1		06/21/24 13:08	79-00-5	
Trichloroethene	<0.54	ug/L	5.0	1		06/21/24 13:08	79-01-6	
Trichlorofluoromethane	<0.23	ug/L	5.0	1		06/21/24 13:08	75-69-4	
1,2,3-Trichloropropane	<0.37	ug/L	5.0	1		06/21/24 13:08	96-18-4	
1,2,4-Trimethylbenzene	<0.25	ug/L	5.0	1		06/21/24 13:08	95-63-6	
1,3,5-Trimethylbenzene	<0.27	ug/L	5.0	1		06/21/24 13:08	108-67-8	
Vinyl acetate	<0.45	ug/L	50.0	1		06/21/24 13:08	108-05-4	L1
Vinyl chloride	<0.30	ug/L	2.0	1		06/21/24 13:08	75-01-4	
Xylene (Total)	<0.25	ug/L	10.0	1		06/21/24 13:08	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	104	%.	82-128	1		06/21/24 13:08	1868-53-7	
4-Bromofluorobenzene (S)	103	%.	79-124	1		06/21/24 13:08	460-00-4	
Toluene-d8 (S)	101	%.	73-122	1		06/21/24 13:08	2037-26-5	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: Trip Blank	Lab ID: 50375808005	Collected: 06/12/24 08:00	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5030 MSV</b>	Analytical Method: EPA 8260 Pace Analytical Services - Indianapolis							
Acetone	<2.7	ug/L	100	1		06/21/24 13:37	67-64-1	
Acrolein	<3.5	ug/L	50.0	1		06/21/24 13:37	107-02-8	
Acrylonitrile	<1.1	ug/L	100	1		06/21/24 13:37	107-13-1	
Benzene	<0.20	ug/L	5.0	1		06/21/24 13:37	71-43-2	
Bromobenzene	<0.25	ug/L	5.0	1		06/21/24 13:37	108-86-1	
Bromochloromethane	<0.24	ug/L	5.0	1		06/21/24 13:37	74-97-5	
Bromodichloromethane	<0.26	ug/L	5.0	1		06/21/24 13:37	75-27-4	
Bromoform	<0.29	ug/L	5.0	1		06/21/24 13:37	75-25-2	
Bromomethane	<0.75	ug/L	5.0	1		06/21/24 13:37	74-83-9	
2-Butanone (MEK)	<1.6	ug/L	25.0	1		06/21/24 13:37	78-93-3	
n-Butylbenzene	<0.23	ug/L	5.0	1		06/21/24 13:37	104-51-8	
sec-Butylbenzene	<0.24	ug/L	5.0	1		06/21/24 13:37	135-98-8	
tert-Butylbenzene	<0.21	ug/L	5.0	1		06/21/24 13:37	98-06-6	
Carbon disulfide	<0.26	ug/L	10.0	1		06/21/24 13:37	75-15-0	
Carbon tetrachloride	<0.22	ug/L	5.0	1		06/21/24 13:37	56-23-5	
Chlorobenzene	<0.20	ug/L	5.0	1		06/21/24 13:37	108-90-7	
Chloroethane	<0.47	ug/L	5.0	1		06/21/24 13:37	75-00-3	
Chloroform	<0.31	ug/L	5.0	1		06/21/24 13:37	67-66-3	
Chloromethane	<0.18	ug/L	5.0	1		06/21/24 13:37	74-87-3	
2-Chlorotoluene	<0.24	ug/L	5.0	1		06/21/24 13:37	95-49-8	
4-Chlorotoluene	<0.26	ug/L	5.0	1		06/21/24 13:37	106-43-4	
Dibromochloromethane	<0.23	ug/L	5.0	1		06/21/24 13:37	124-48-1	
1,2-Dibromoethane (EDB)	<0.25	ug/L	5.0	1		06/21/24 13:37	106-93-4	
Dibromomethane	<0.24	ug/L	5.0	1		06/21/24 13:37	74-95-3	
1,2-Dichlorobenzene	<0.22	ug/L	5.0	1		06/21/24 13:37	95-50-1	
1,3-Dichlorobenzene	<0.23	ug/L	5.0	1		06/21/24 13:37	541-73-1	
1,4-Dichlorobenzene	<0.28	ug/L	5.0	1		06/21/24 13:37	106-46-7	
trans-1,4-Dichloro-2-butene	<0.46	ug/L	100	1		06/21/24 13:37	110-57-6	
Dichlorodifluoromethane	<0.42	ug/L	5.0	1		06/21/24 13:37	75-71-8	
1,1-Dichloroethane	<0.18	ug/L	5.0	1		06/21/24 13:37	75-34-3	
1,2-Dichloroethane	<0.20	ug/L	5.0	1		06/21/24 13:37	107-06-2	
1,1-Dichloroethene	<0.22	ug/L	5.0	1		06/21/24 13:37	75-35-4	
cis-1,2-Dichloroethene	<0.28	ug/L	5.0	1		06/21/24 13:37	156-59-2	
trans-1,2-Dichloroethene	<0.32	ug/L	5.0	1		06/21/24 13:37	156-60-5	
1,2-Dichloropropane	<0.22	ug/L	5.0	1		06/21/24 13:37	78-87-5	
1,3-Dichloropropane	<0.20	ug/L	5.0	1		06/21/24 13:37	142-28-9	
2,2-Dichloropropane	<0.30	ug/L	5.0	1		06/21/24 13:37	594-20-7	
1,1-Dichloropropene	<0.22	ug/L	5.0	1		06/21/24 13:37	563-58-6	
cis-1,3-Dichloropropene	<0.23	ug/L	5.0	1		06/21/24 13:37	10061-01-5	
trans-1,3-Dichloropropene	<0.27	ug/L	5.0	1		06/21/24 13:37	10061-02-6	
Ethylbenzene	<0.22	ug/L	5.0	1		06/21/24 13:37	100-41-4	
Ethyl methacrylate	<0.29	ug/L	100	1		06/21/24 13:37	97-63-2	
Hexachloro-1,3-butadiene	<0.28	ug/L	5.0	1		06/21/24 13:37	87-68-3	
n-Hexane	<0.30	ug/L	5.0	1		06/21/24 13:37	110-54-3	
2-Hexanone	<1.1	ug/L	25.0	1		06/21/24 13:37	591-78-6	
Iodomethane	<0.39	ug/L	10.0	1		06/21/24 13:37	74-88-4	

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## ANALYTICAL RESULTS

Project: Jasper WWTP

Pace Project No.: 50375808

Sample: Trip Blank	Lab ID: 50375808005	Collected: 06/12/24 08:00	Received: 06/13/24 09:35	Matrix: Water				
Parameters	Results	Units	PQL	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260/5030 MSV</b>	Analytical Method: EPA 8260							
	Pace Analytical Services - Indianapolis							
Isopropylbenzene (Cumene)	<0.25	ug/L	5.0	1		06/21/24 13:37	98-82-8	
p-Isopropyltoluene	<0.24	ug/L	5.0	1		06/21/24 13:37	99-87-6	
Methylene Chloride	<1.0	ug/L	5.0	1		06/21/24 13:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.92	ug/L	25.0	1		06/21/24 13:37	108-10-1	
Methyl-tert-butyl ether	<0.21	ug/L	4.0	1		06/21/24 13:37	1634-04-4	
Naphthalene	<0.44	ug/L	5.0	1		06/21/24 13:37	91-20-3	
n-Propylbenzene	<0.25	ug/L	5.0	1		06/21/24 13:37	103-65-1	
Styrene	<0.23	ug/L	5.0	1		06/21/24 13:37	100-42-5	
1,1,1,2-Tetrachloroethane	<0.22	ug/L	5.0	1		06/21/24 13:37	630-20-6	
1,1,2,2-Tetrachloroethane	<0.23	ug/L	5.0	1		06/21/24 13:37	79-34-5	
Tetrachloroethene	<0.16	ug/L	5.0	1		06/21/24 13:37	127-18-4	
Toluene	<0.35	ug/L	5.0	1		06/21/24 13:37	108-88-3	
1,2,3-Trichlorobenzene	<0.25	ug/L	5.0	1		06/21/24 13:37	87-61-6	
1,2,4-Trichlorobenzene	<0.22	ug/L	5.0	1		06/21/24 13:37	120-82-1	
1,1,1-Trichloroethane	<0.21	ug/L	5.0	1		06/21/24 13:37	71-55-6	
1,1,2-Trichloroethane	<0.28	ug/L	5.0	1		06/21/24 13:37	79-00-5	
Trichloroethene	<0.54	ug/L	5.0	1		06/21/24 13:37	79-01-6	
Trichlorofluoromethane	<0.23	ug/L	5.0	1		06/21/24 13:37	75-69-4	
1,2,3-Trichloropropane	<0.37	ug/L	5.0	1		06/21/24 13:37	96-18-4	
1,2,4-Trimethylbenzene	<0.25	ug/L	5.0	1		06/21/24 13:37	95-63-6	
1,3,5-Trimethylbenzene	<0.27	ug/L	5.0	1		06/21/24 13:37	108-67-8	
Vinyl acetate	<0.45	ug/L	50.0	1		06/21/24 13:37	108-05-4	L1
Vinyl chloride	<0.30	ug/L	2.0	1		06/21/24 13:37	75-01-4	
Xylene (Total)	<0.25	ug/L	10.0	1		06/21/24 13:37	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	103	%	82-128	1		06/21/24 13:37	1868-53-7	
4-Bromofluorobenzene (S)	101	%	79-124	1		06/21/24 13:37	460-00-4	
Toluene-d8 (S)	100	%	73-122	1		06/21/24 13:37	2037-26-5	

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**QUALITY CONTROL DATA**

Project: Jasper WWTP

Pace Project No.: 50375808

QC Batch:	796406	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples: 50375808001, 50375808002, 50375808003, 50375808004			

METHOD BLANK: 3643981 Matrix: Water  
 Associated Lab Samples: 50375808001, 50375808002, 50375808003, 50375808004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	<2.5	10.0	06/21/24 01:53	

LABORATORY CONTROL SAMPLE: 3643982

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	1000	968	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643983 3643984

Parameter	Units	50375659004		3643983		3643984		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.	MS Result	MS Spike Conc.				
Lead	ug/L	<10.0	1000	965	1000	980	96	98	75-125	1	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643985 3643986

Parameter	Units	50375808003		3643985		3643986		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MS Spike Conc.	MS Result	MS Spike Conc.	MS Result	MS Spike Conc.				
Lead	ug/L	12.6	1000	919	1000	989	91	98	75-125	7	20

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**QUALITY CONTROL DATA**

Project: Jasper WWTP

Pace Project No.: 50375808

QC Batch:	796998	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3010	Analysis Description:	6010 MET Dissolved
		Laboratory:	Pace Analytical Services - Indianapolis
Associated Lab Samples:	50375808001, 50375808002, 50375808003, 50375808004		

METHOD BLANK: 3646598 Matrix: Water  
 Associated Lab Samples: 50375808001, 50375808002, 50375808003, 50375808004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead, Dissolved	ug/L	2.9J	10.0	06/26/24 11:01	

LABORATORY CONTROL SAMPLE: 3646599

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead, Dissolved	ug/L	1000	1020	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3646600 3646601

Parameter	Units	50375808003		3646601		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Lead, Dissolved	ug/L	<2.5	1000	1000	1020	1040	102	104	75-125	1	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375808

QC Batch: 796904

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375808001, 50375808002, 50375808003, 50375808004, 50375808005

METHOD BLANK: 3646114

Matrix: Water

Associated Lab Samples: 50375808001, 50375808002, 50375808003, 50375808004, 50375808005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.22	5.0	06/21/24 03:49	
1,1,1-Trichloroethane	ug/L	<0.21	5.0	06/21/24 03:49	
1,1,2,2-Tetrachloroethane	ug/L	<0.23	5.0	06/21/24 03:49	
1,1,2-Trichloroethane	ug/L	<0.28	5.0	06/21/24 03:49	
1,1-Dichloroethane	ug/L	<0.18	5.0	06/21/24 03:49	
1,1-Dichloroethene	ug/L	<0.22	5.0	06/21/24 03:49	
1,1-Dichloropropene	ug/L	<0.22	5.0	06/21/24 03:49	
1,2,3-Trichlorobenzene	ug/L	<0.25	5.0	06/21/24 03:49	
1,2,3-Trichloropropane	ug/L	<0.37	5.0	06/21/24 03:49	
1,2,4-Trichlorobenzene	ug/L	<0.22	5.0	06/21/24 03:49	
1,2,4-Trimethylbenzene	ug/L	<0.25	5.0	06/21/24 03:49	
1,2-Dibromoethane (EDB)	ug/L	<0.25	5.0	06/21/24 03:49	
1,2-Dichlorobenzene	ug/L	<0.22	5.0	06/21/24 03:49	
1,2-Dichloroethane	ug/L	<0.20	5.0	06/21/24 03:49	
1,2-Dichloropropane	ug/L	<0.22	5.0	06/21/24 03:49	
1,3,5-Trimethylbenzene	ug/L	<0.27	5.0	06/21/24 03:49	
1,3-Dichlorobenzene	ug/L	<0.23	5.0	06/21/24 03:49	
1,3-Dichloropropane	ug/L	<0.20	5.0	06/21/24 03:49	
1,4-Dichlorobenzene	ug/L	<0.28	5.0	06/21/24 03:49	
2,2-Dichloropropane	ug/L	<0.30	5.0	06/21/24 03:49	
2-Butanone (MEK)	ug/L	<1.6	25.0	06/21/24 03:49	
2-Chlorotoluene	ug/L	<0.24	5.0	06/21/24 03:49	
2-Hexanone	ug/L	<1.1	25.0	06/21/24 03:49	
4-Chlorotoluene	ug/L	<0.26	5.0	06/21/24 03:49	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.92	25.0	06/21/24 03:49	
Acetone	ug/L	<2.7	100	06/21/24 03:49	
Acrolein	ug/L	<3.5	50.0	06/21/24 03:49	
Acrylonitrile	ug/L	<1.1	100	06/21/24 03:49	
Benzene	ug/L	<0.20	5.0	06/21/24 03:49	
Bromobenzene	ug/L	<0.25	5.0	06/21/24 03:49	
Bromochloromethane	ug/L	<0.24	5.0	06/21/24 03:49	
Bromodichloromethane	ug/L	<0.26	5.0	06/21/24 03:49	
Bromoform	ug/L	<0.29	5.0	06/21/24 03:49	
Bromomethane	ug/L	<0.75	5.0	06/21/24 03:49	
Carbon disulfide	ug/L	<0.26	10.0	06/21/24 03:49	
Carbon tetrachloride	ug/L	<0.22	5.0	06/21/24 03:49	
Chlorobenzene	ug/L	<0.20	5.0	06/21/24 03:49	
Chloroethane	ug/L	<0.47	5.0	06/21/24 03:49	
Chloroform	ug/L	<0.31	5.0	06/21/24 03:49	
Chloromethane	ug/L	<0.18	5.0	06/21/24 03:49	

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### REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375808

METHOD BLANK: 3646114

Matrix: Water

Associated Lab Samples: 50375808001, 50375808002, 50375808003, 50375808004, 50375808005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/L	<0.28	5.0	06/21/24 03:49	
cis-1,3-Dichloropropene	ug/L	<0.23	5.0	06/21/24 03:49	
Dibromochloromethane	ug/L	<0.23	5.0	06/21/24 03:49	
Dibromomethane	ug/L	<0.24	5.0	06/21/24 03:49	
Dichlorodifluoromethane	ug/L	<0.42	5.0	06/21/24 03:49	
Ethyl methacrylate	ug/L	<0.29	100	06/21/24 03:49	
Ethylbenzene	ug/L	<0.22	5.0	06/21/24 03:49	
Hexachloro-1,3-butadiene	ug/L	<0.28	5.0	06/21/24 03:49	
Iodomethane	ug/L	<0.39	10.0	06/21/24 03:49	
Isopropylbenzene (Cumene)	ug/L	<0.25	5.0	06/21/24 03:49	
Methyl-tert-butyl ether	ug/L	<0.21	4.0	06/21/24 03:49	
Methylene Chloride	ug/L	<1.0	5.0	06/21/24 03:49	
n-Butylbenzene	ug/L	<0.23	5.0	06/21/24 03:49	
n-Hexane	ug/L	<0.30	5.0	06/21/24 03:49	
n-Propylbenzene	ug/L	<0.25	5.0	06/21/24 03:49	
Naphthalene	ug/L	<0.44	5.0	06/21/24 03:49	
p-Isopropyltoluene	ug/L	<0.24	5.0	06/21/24 03:49	
sec-Butylbenzene	ug/L	<0.24	5.0	06/21/24 03:49	
Styrene	ug/L	<0.23	5.0	06/21/24 03:49	
tert-Butylbenzene	ug/L	<0.21	5.0	06/21/24 03:49	
Tetrachloroethene	ug/L	<0.16	5.0	06/21/24 03:49	
Toluene	ug/L	<0.35	5.0	06/21/24 03:49	
trans-1,2-Dichloroethene	ug/L	<0.32	5.0	06/21/24 03:49	
trans-1,3-Dichloropropene	ug/L	<0.27	5.0	06/21/24 03:49	
trans-1,4-Dichloro-2-butene	ug/L	<0.46	100	06/21/24 03:49	
Trichloroethene	ug/L	<0.54	5.0	06/21/24 03:49	
Trichlorofluoromethane	ug/L	<0.23	5.0	06/21/24 03:49	
Vinyl acetate	ug/L	<0.45	50.0	06/21/24 03:49	
Vinyl chloride	ug/L	<0.30	2.0	06/21/24 03:49	
Xylene (Total)	ug/L	<0.25	10.0	06/21/24 03:49	
4-Bromofluorobenzene (S)	%	100	79-124	06/21/24 03:49	
Dibromofluoromethane (S)	%	102	82-128	06/21/24 03:49	
Toluene-d8 (S)	%	100	73-122	06/21/24 03:49	

LABORATORY CONTROL SAMPLE: 3646115

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	51.5	103	71-126	
1,1,2,2-Tetrachloroethane	ug/L	50	50.9	102	70-126	
1,1,2-Trichloroethane	ug/L	50	51.3	103	79-125	
1,1-Dichloroethane	ug/L	50	49.8	100	79-120	
1,1-Dichloroethene	ug/L	50	45.7	91	71-130	
1,1-Dichloropropene	ug/L	50	52.4	105	78-144	

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## QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375808

LABORATORY CONTROL SAMPLE: 3646115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichlorobenzene	ug/L	50	52.0	104	57-146	
1,2,3-Trichloropropane	ug/L	50	52.2	104	74-127	
1,2,4-Trichlorobenzene	ug/L	50	52.8	106	62-136	
1,2,4-Trimethylbenzene	ug/L	50	49.9	100	69-120	
1,2-Dibromoethane (EDB)	ug/L	50	50.8	102	80-120	
1,2-Dichlorobenzene	ug/L	50	49.9	100	79-123	
1,2-Dichloroethane	ug/L	50	49.6	99	72-123	
1,2-Dichloropropane	ug/L	50	50.6	101	76-125	
1,3,5-Trimethylbenzene	ug/L	50	48.8	98	71-120	
1,3-Dichlorobenzene	ug/L	50	48.5	97	78-117	
1,3-Dichloropropane	ug/L	50	50.4	101	77-126	
1,4-Dichlorobenzene	ug/L	50	48.2	96	79-116	
2,2-Dichloropropane	ug/L	50	39.3	79	48-138	
2-Butanone (MEK)	ug/L	250	253	101	67-135	
2-Chlorotoluene	ug/L	50	49.2	98	75-122	
2-Hexanone	ug/L	250	259	103	65-135	
4-Chlorotoluene	ug/L	50	49.2	98	77-120	
4-Methyl-2-pentanone (MIBK)	ug/L	250	261	104	69-136	
Acetone	ug/L	250	214	86	34-156	
Acrolein	ug/L	1000	995	99	59-191	
Acrylonitrile	ug/L	250	250	100	67-146	
Benzene	ug/L	50	49.2	98	76-122	
Bromobenzene	ug/L	50	49.3	99	75-121	
Bromochloromethane	ug/L	50	45.3	91	73-119	
Bromodichloromethane	ug/L	50	55.7	111	80-126	
Bromoform	ug/L	50	55.9	112	77-124	
Bromomethane	ug/L	50	60.8	122	10-175	
Carbon disulfide	ug/L	50	47.1	94	69-121	
Carbon tetrachloride	ug/L	50	52.5	105	73-127	
Chlorobenzene	ug/L	50	48.0	96	76-118	
Chloroethane	ug/L	50	52.9	106	36-162	
Chloroform	ug/L	50	50.8	102	78-121	
Chloromethane	ug/L	50	51.8	104	37-143	
cis-1,2-Dichloroethene	ug/L	50	51.0	102	77-123	
cis-1,3-Dichloropropene	ug/L	50	53.2	106	76-132	
Dibromochloromethane	ug/L	50	55.8	112	79-130	
Dibromomethane	ug/L	50	52.9	106	79-124	
Dichlorodifluoromethane	ug/L	50	32.6	65	29-126	
Ethyl methacrylate	ug/L	50	58.8J	118	78-137	
Ethylbenzene	ug/L	50	50.6	101	76-120	
Hexachloro-1,3-butadiene	ug/L	50	50.3	101	60-131	
Iodomethane	ug/L	50	54.3	109	10-148	
Isopropylbenzene (Cumene)	ug/L	50	44.9	90	71-124	
Methyl-tert-butyl ether	ug/L	50	50.8	102	71-121	
Methylene Chloride	ug/L	50	48.1	96	71-121	
n-Butylbenzene	ug/L	50	49.0	98	68-131	
n-Hexane	ug/L	50	40.0	80	51-126	

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**QUALITY CONTROL DATA**

Project: Jasper WWTP

Pace Project No.: 50375808

LABORATORY CONTROL SAMPLE: 3646115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Propylbenzene	ug/L	50	49.8	100	67-127	
Naphthalene	ug/L	50	57.8	116	62-143	
p-Isopropyltoluene	ug/L	50	48.6	97	72-124	
sec-Butylbenzene	ug/L	50	49.5	99	71-126	
Styrene	ug/L	50	51.3	103	80-121	
tert-Butylbenzene	ug/L	50	44.1	88	71-128	
Tetrachloroethene	ug/L	50	47.7	95	71-122	
Toluene	ug/L	50	47.7	95	74-118	
trans-1,2-Dichloroethene	ug/L	50	48.6	97	75-122	
trans-1,3-Dichloropropene	ug/L	50	52.5	105	77-126	
trans-1,4-Dichloro-2-butene	ug/L	50	51.4J	103	53-136	
Trichloroethene	ug/L	50	50.8	102	74-125	
Trichlorofluoromethane	ug/L	50	50.0	100	64-138	
Vinyl acetate	ug/L	200	339	170	74-154 L1	
Vinyl chloride	ug/L	50	50.4	101	55-139	
Xylene (Total)	ug/L	150	146	97	73-119	
4-Bromofluorobenzene (S)	%			103	79-124	
Dibromofluoromethane (S)	%			104	82-128	
Toluene-d8 (S)	%			100	73-122	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3646116 3646117

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		50375808003 Result	Spike Conc.	Spike Conc.	Result							Result
1,1,1,2-Tetrachloroethane	ug/L	<0.22	50	50	52.2	50.9	104	102	47-139	2	20	
1,1,1-Trichloroethane	ug/L	<0.21	50	50	55.3	54.5	111	109	47-145	2	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.23	50	50	49.7	48.7	99	97	49-133	2	20	
1,1,2-Trichloroethane	ug/L	<0.28	50	50	50.7	50.2	101	100	52-136	1	20	
1,1-Dichloroethane	ug/L	<0.18	50	50	53.1	52.2	106	104	52-137	2	20	
1,1-Dichloroethene	ug/L	<0.22	50	50	50.6	49.6	101	99	53-144	2	20	
1,1-Dichloropropene	ug/L	<0.22	50	50	56.3	55.4	113	111	49-150	2	20	
1,2,3-Trichlorobenzene	ug/L	<0.25	50	50	49.1	50.1	98	100	20-153	2	20	
1,2,3-Trichloropropane	ug/L	<0.37	50	50	50.9	50.0	102	100	47-134	2	20	
1,2,4-Trichlorobenzene	ug/L	<0.22	50	50	49.6	49.5	99	99	23-141	0	20	
1,2,4-Trimethylbenzene	ug/L	<0.25	50	50	49.8	48.7	100	97	41-131	2	20	
1,2-Dibromoethane (EDB)	ug/L	<0.25	50	50	49.9	49.6	100	99	55-133	1	20	
1,2-Dichlorobenzene	ug/L	<0.22	50	50	48.7	47.9	97	96	43-133	2	20	
1,2-Dichloroethane	ug/L	<0.20	50	50	49.8	49.6	100	99	50-138	0	20	
1,2-Dichloropropane	ug/L	<0.22	50	50	51.4	51.5	103	103	54-139	0	20	
1,3,5-Trimethylbenzene	ug/L	<0.27	50	50	49.3	48.5	99	97	39-133	2	20	
1,3-Dichlorobenzene	ug/L	<0.23	50	50	47.6	47.2	95	94	41-131	1	20	
1,3-Dichloropropane	ug/L	<0.20	50	50	49.9	49.9	100	100	50-136	0	20	
1,4-Dichlorobenzene	ug/L	<0.28	50	50	47.0	46.2	94	92	41-131	2	20	
2,2-Dichloropropane	ug/L	<0.30	50	50	35.7	35.2	71	70	17-141	1	20	
2-Butanone (MEK)	ug/L	<1.6	250	250	253	239	101	96	45-138	6	20	

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**QUALITY CONTROL DATA**

Project: Jasper WWTP  
 Pace Project No.: 50375808

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3646116 3646117												
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		50375808003 Result	Spike Conc.	Spike Conc.	MS Result							
2-Chlorotoluene	ug/L	<0.24	50	50	50.2	49.0	100	98	36-141	2	20	
2-Hexanone	ug/L	<1.1	250	250	259	256	104	102	45-135	1	20	
4-Chlorotoluene	ug/L	<0.26	50	50	49.3	48.0	99	96	38-134	3	20	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.92	250	250	264	258	106	103	46-138	2	20	
Acetone	ug/L	<2.7	250	250	222	216	88	86	25-151	3	20	
Acrolein	ug/L	<3.5	1000	1000	830	822	83	82	36-168	1	20	
Acrylonitrile	ug/L	<1.1	250	250	252	243	101	97	47-147	4	20	
Benzene	ug/L	<0.20	50	50	50.9	49.9	102	100	53-138	2	20	
Bromobenzene	ug/L	<0.25	50	50	49.3	48.2	99	96	47-130	2	20	
Bromochloromethane	ug/L	<0.24	50	50	46.7	47.1	93	94	52-130	1	20	
Bromodichloromethane	ug/L	<0.26	50	50	54.7	54.5	109	109	50-146	0	20	
Bromoform	ug/L	<0.29	50	50	51.7	51.4	103	103	45-132	1	20	
Bromomethane	ug/L	<0.75	50	50	39.5	49.5	79	99	10-173	22	20	R1
Carbon disulfide	ug/L	<0.26	50	50	49.8	48.6	100	97	47-133	2	20	
Carbon tetrachloride	ug/L	<0.22	50	50	55.8	55.2	112	110	43-148	1	20	
Chlorobenzene	ug/L	<0.20	50	50	48.7	47.6	97	95	52-131	2	20	
Chloroethane	ug/L	<0.47	50	50	59.3	57.6	119	115	25-169	3	20	
Chloroform	ug/L	<0.31	50	50	52.3	51.5	105	103	54-138	2	20	
Chloromethane	ug/L	<0.18	50	50	54.9	53.6	110	107	33-137	2	20	
cis-1,2-Dichloroethene	ug/L	<0.28	50	50	52.1	51.6	104	103	50-141	1	20	
cis-1,3-Dichloropropene	ug/L	<0.23	50	50	51.7	50.6	103	101	47-135	2	20	
Dibromochloromethane	ug/L	<0.23	50	50	54.0	54.3	108	109	48-139	1	20	
Dibromomethane	ug/L	<0.24	50	50	51.9	50.8	104	102	51-141	2	20	
Dichlorodifluoromethane	ug/L	<0.42	50	50	38.1	36.9	76	74	15-130	3	20	
Ethyl methacrylate	ug/L	<0.29	50	50	57.1J	56.9J	114	114	51-142		20	
Ethylbenzene	ug/L	<0.22	50	50	51.6	50.6	103	101	50-136	2	20	
Hexachloro-1,3-butadiene	ug/L	<0.28	50	50	45.3	45.9	91	92	15-141	1	20	
Iodomethane	ug/L	<0.39	50	50	27.5	39.0	55	78	10-145	35	20	R1
Isopropylbenzene (Cumene)	ug/L	<0.25	50	50	45.6	45.6	91	91	46-137	0	20	
Methyl-tert-butyl ether	ug/L	<0.21	50	50	50.1	49.0	100	98	47-135	2	20	
Methylene Chloride	ug/L	<1.0	50	50	47.5	46.7	95	93	48-131	2	20	
n-Butylbenzene	ug/L	<0.23	50	50	48.0	47.5	96	95	30-138	1	20	
n-Hexane	ug/L	<0.30	50	50	41.0	40.1	82	80	35-137	2	20	
n-Propylbenzene	ug/L	<0.25	50	50	51.1	49.9	102	100	37-135	2	20	
Naphthalene	ug/L	<0.44	50	50	53.8	55.8	108	112	34-152	4	20	
p-Isopropyltoluene	ug/L	<0.24	50	50	48.8	47.4	98	95	35-136	3	20	
sec-Butylbenzene	ug/L	<0.24	50	50	50.5	49.1	101	98	36-137	3	20	
Styrene	ug/L	<0.23	50	50	50.1	49.8	100	100	46-136	1	20	
tert-Butylbenzene	ug/L	<0.21	50	50	47.6	46.4	95	93	40-137	2	20	
Tetrachloroethene	ug/L	<0.16	50	50	49.4	48.4	99	97	44-138	2	20	
Toluene	ug/L	<0.35	50	50	49.6	48.8	99	98	52-132	2	20	
trans-1,2-Dichloroethene	ug/L	<0.32	50	50	51.0	49.7	102	99	50-137	3	20	
trans-1,3-Dichloropropene	ug/L	<0.27	50	50	49.7	50.2	99	100	46-130	1	20	
trans-1,4-Dichloro-2-butene	ug/L	<0.46	50	50	48.3J	47.2J	97	94	24-134		20	

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### QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375808

Parameter	Units	3646116		3646117		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50375808003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Trichloroethene	ug/L	<0.54	50	50	52.1	51.6	104	103	49-140	1	20		
Trichlorofluoromethane	ug/L	<0.23	50	50	56.7	55.3	113	111	44-153	2	20		
Vinyl acetate	ug/L	<0.45	200	200	238	238	119	119	32-142	0	20		
Vinyl chloride	ug/L	<0.30	50	50	56.6	56.4	113	113	41-147	0	20		
Xylene (Total)	ug/L	<0.25	150	150	148	146	99	98	44-138	1	20		
4-Bromofluorobenzene (S)	%						103	104	79-124				
Dibromofluoromethane (S)	%						105	104	82-128				
Toluene-d8 (S)	%						100	100	73-122				

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## QUALITY CONTROL DATA

Project: Jasper WWTP

Pace Project No.: 50375808

QC Batch: 796328

Analysis Method: EPA 8270 by SIM 40E

QC Batch Method: EPA 3511

Analysis Description: 8270 Water PAH 40 by SIM MSSV

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50375808001, 50375808002, 50375808003, 50375808004

METHOD BLANK: 3643676

Matrix: Water

Associated Lab Samples: 50375808001, 50375808002, 50375808003, 50375808004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.087	1.0	06/19/24 21:54	
2-Methylnaphthalene	ug/L	<0.098	1.0	06/19/24 21:54	
Acenaphthene	ug/L	<0.094	1.0	06/19/24 21:54	
Acenaphthylene	ug/L	<0.073	1.0	06/19/24 21:54	
Anthracene	ug/L	<0.081	0.10	06/19/24 21:54	
Benzo(a)anthracene	ug/L	<0.065	0.10	06/19/24 21:54	
Benzo(a)pyrene	ug/L	<0.070	0.10	06/19/24 21:54	
Benzo(b)fluoranthene	ug/L	<0.065	0.10	06/19/24 21:54	
Benzo(g,h,i)perylene	ug/L	<0.091	0.10	06/19/24 21:54	
Benzo(k)fluoranthene	ug/L	<0.068	0.10	06/19/24 21:54	
Chrysene	ug/L	<0.061	0.50	06/19/24 21:54	
Dibenz(a,h)anthracene	ug/L	<0.076	0.10	06/19/24 21:54	
Fluoranthene	ug/L	<0.074	1.0	06/19/24 21:54	
Fluorene	ug/L	<0.096	1.0	06/19/24 21:54	
Indeno(1,2,3-cd)pyrene	ug/L	<0.058	0.10	06/19/24 21:54	
Naphthalene	ug/L	<0.41	1.0	06/19/24 21:54	
Phenanthrene	ug/L	<0.10	1.0	06/19/24 21:54	
Pyrene	ug/L	<0.099	1.0	06/19/24 21:54	
2-Fluorobiphenyl (S)	%	92	43-129	06/19/24 21:54	
p-Terphenyl-d14 (S)	%	131	64-162	06/19/24 21:54	

LABORATORY CONTROL SAMPLE: 3643677

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	25	21.8	87	55-123	
2-Methylnaphthalene	ug/L	25	18.0	72	49-116	
Acenaphthene	ug/L	25	21.6	86	65-121	
Acenaphthylene	ug/L	25	28.4	114	57-131	
Anthracene	ug/L	25	30.7	123	45-133	
Benzo(a)anthracene	ug/L	25	30.1	120	74-147	
Benzo(a)pyrene	ug/L	25	28.5	114	79-132	
Benzo(b)fluoranthene	ug/L	25	27.9	112	80-157	
Benzo(g,h,i)perylene	ug/L	25	26.3	105	70-131	
Benzo(k)fluoranthene	ug/L	25	29.2	117	71-158	
Chrysene	ug/L	25	28.1	112	65-135	
Dibenz(a,h)anthracene	ug/L	25	28.9	116	75-141	
Fluoranthene	ug/L	25	32.2	129	85-139	
Fluorene	ug/L	25	24.4	98	74-129	
Indeno(1,2,3-cd)pyrene	ug/L	25	27.9	112	65-133	

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## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Jasper WWTP  
Pace Project No.: 50375808

LABORATORY CONTROL SAMPLE: 3643677

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	25	21.0	84	60-114	
Phenanthrene	ug/L	25	27.5	110	82-128	
Pyrene	ug/L	25	30.2	121	70-145	
2-Fluorobiphenyl (S)	%			90	43-129	
p-Terphenyl-d14 (S)	%			136	64-162	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643678 3643679

Parameter	Units	MS 50375808003		MSD		MS 3643679		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
1-Methylnaphthalene	ug/L	0.24J	24.9	24.9	21.8	22.7	86	90	35-144	4	20		
2-Methylnaphthalene	ug/L	0.33J	24.9	24.9	18.0	18.7	71	74	38-130	4	20		
Acenaphthene	ug/L	0.68J	24.9	24.9	22.6	23.9	88	93	52-131	6	20		
Acenaphthylene	ug/L	<0.072	24.9	24.9	28.4	29.9	114	120	57-120	5	20		
Anthracene	ug/L	0.081J	24.9	24.9	29.3	29.5	117	118	43-123	1	20		
Benzo(a)anthracene	ug/L	<0.064	24.9	24.9	30.5	30.3	122	122	79-132	1	20		
Benzo(a)pyrene	ug/L	<0.069	24.9	24.9	28.0	27.8	112	112	75-125	1	20		
Benzo(b)fluoranthene	ug/L	<0.064	24.9	24.9	27.8	26.5	112	107	79-149	5	20		
Benzo(g,h,i)perylene	ug/L	<0.090	24.9	24.9	24.3	24.6	97	99	48-156	1	20		
Benzo(k)fluoranthene	ug/L	<0.067	24.9	24.9	27.1	27.7	109	111	81-150	2	20		
Chrysene	ug/L	<0.060	24.9	24.9	27.6	27.5	111	111	78-130	1	20		
Dibenz(a,h)anthracene	ug/L	<0.075	24.9	24.9	26.8	27.1	108	109	62-149	1	20		
Fluoranthene	ug/L	0.23J	24.9	24.9	31.1	30.8	124	123	74-141	1	20		
Fluorene	ug/L	0.30J	24.9	24.9	25.4	26.2	101	104	56-145	3	20		
Indeno(1,2,3-cd)pyrene	ug/L	<0.057	24.9	24.9	26.0	26.7	104	107	51-146	3	20		
Naphthalene	ug/L	0.46J	24.9	24.9	21.2	21.6	83	85	31-147	2	20		
Phenanthrene	ug/L	0.63J	24.9	24.9	27.5	27.5	108	108	77-130	0	20		
Pyrene	ug/L	0.11J	24.9	24.9	31.6	31.6	126	127	75-150	0	20		
2-Fluorobiphenyl (S)	%						105	92	43-129				
p-Terphenyl-d14 (S)	%						137	130	64-162				

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643680 3643681

Parameter	Units	MS 50375844016		MSD		MS 3643681		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
1-Methylnaphthalene	ug/L	46.7	24.4	24.5	59.9	58.9	54	50	35-144	2	20		
2-Methylnaphthalene	ug/L	ND	24.4	24.5	18.3	16.7	73	66	38-130	9	20		
Acenaphthene	ug/L	24.9	24.4	24.5	43.5	42.3	76	71	52-131	3	20		
Acenaphthylene	ug/L	13.0	24.4	24.5	41.6	40.1	117	110	57-120	4	20		
Anthracene	ug/L	ND	24.4	24.5	28.6	29.0	117	118	43-123	2	20		
Benzo(a)anthracene	ug/L	ND	24.4	24.5	29.6	30.0	121	123	79-132	2	20		
Benzo(a)pyrene	ug/L	ND	24.4	24.5	26.7	27.6	109	113	75-125	3	20		
Benzo(b)fluoranthene	ug/L	ND	24.4	24.5	25.7	26.5	105	108	79-149	3	20		
Benzo(g,h,i)perylene	ug/L	ND	24.4	24.5	24.0	24.7	98	101	48-156	3	20		

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**QUALITY CONTROL DATA**

Project: Jasper WWTP

Pace Project No.: 50375808

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3643680 3643681														
Parameter	Units	50375844016		3643681		3643681		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS	MSD	MS	MSD	MS	MSD							
Benzo(k)fluoranthene	ug/L	ND	24.4	24.4	24.5	26.3	27.4	107	112	81-150	4	20		
Chrysene	ug/L	ND	24.4	24.4	24.5	26.8	27.4	110	112	78-130	2	20		
Dibenz(a,h)anthracene	ug/L	ND	24.4	24.4	24.5	26.2	27.1	107	111	62-149	3	20		
Fluoranthene	ug/L	ND	24.4	24.4	24.5	29.8	30.7	122	125	74-141	3	20		
Fluorene	ug/L	ND	24.4	24.4	24.5	25.7	24.6	104	99	56-145	4	20		
Indeno(1,2,3-cd)pyrene	ug/L	ND	24.4	24.4	24.5	25.8	26.6	105	108	51-146	3	20		
Naphthalene	ug/L	173	24.4	24.4	24.5	166	161	-30	-50	31-147	3	20	M1	
Phenanthrene	ug/L	ND	24.4	24.4	24.5	25.7	26.0	105	106	77-130	1	20		
Pyrene	ug/L	ND	24.4	24.4	24.5	30.4	30.6	124	125	75-150	1	20		
2-Fluorobiphenyl (S)	%							97	87	43-129				
p-Terphenyl-d14 (S)	%							129	128	64-162				

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## QUALIFIERS

Project: Jasper WWTP

Pace Project No.: 50375808

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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.

### ANALYTE QUALIFIERS

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.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Jasper WWTP

Pace Project No.: 50375808

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50375808001	MW-1	EPA 3010	796406	EPA 6010	796955
50375808002	MW-2	EPA 3010	796406	EPA 6010	796955
50375808003	MW-3	EPA 3010	796406	EPA 6010	796955
50375808004	Dup	EPA 3010	796406	EPA 6010	796955
50375808001	MW-1	EPA 3010	796998	EPA 6010	797676
50375808002	MW-2	EPA 3010	796998	EPA 6010	797676
50375808003	MW-3	EPA 3010	796998	EPA 6010	797676
50375808004	Dup	EPA 3010	796998	EPA 6010	797676
50375808001	MW-1	EPA 3511	796328	EPA 8270 by SIM 40E	796690
50375808002	MW-2	EPA 3511	796328	EPA 8270 by SIM 40E	796690
50375808003	MW-3	EPA 3511	796328	EPA 8270 by SIM 40E	796690
50375808004	Dup	EPA 3511	796328	EPA 8270 by SIM 40E	796690
50375808001	MW-1	EPA 8260	796904		
50375808002	MW-2	EPA 8260	796904		
50375808003	MW-3	EPA 8260	796904		
50375808004	Dup	EPA 8260	796904		
50375808005	Trip Blank	EPA 8260	796904		

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE CONDITION UPON RECEIPT FORM**

Date/Time and Initials of person examining contents: DMP 6/13/24 12:42

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): 1.8/1.8     
 (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?:

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:		<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	<input checked="" type="checkbox"/>		
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			<u>Present</u>	<u>Absent</u>	<u>N/A</u>
Rush TAT Requested (4 days or less):		<input checked="" type="checkbox"/>	Residual Chlorine Check (SVOC 625 Pest/PCB 608)			<input checked="" type="checkbox"/>
		<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)		<u>N/A</u>	Trip Blank Custody Seals?:	<input checked="" type="checkbox"/>		

COMMENTS:  
 \_\_\_\_\_  
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