

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

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

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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

#### INSTRUCTIONS:

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

		A. FAC	CILITY I	NFORMATION			
Quarter: 2	Year: 202	4	FACIL	ITY IDENTIFICATION I	NUMBER: 22	106	
Facility Name: Columbus Mobil				LUST Incident Numbe	r(s): <b>2017085</b>	16	
Street Address (number and street,	): 2220 Eas	t Columbus D	rive				
City: East Chicago		County: Lake	)			ZIP Code: 463	312
	В.	CURRENT S	ITE PR	IORITY INFORMATION			
Was free product present this of	uarter?				⊠ YES		□NO
Are vapors detected in any con	fined space	es (basement	s, sewe	rs, etc.)?	YES		⊠ NO
Are utilities impacted or likely to	be acting	as conduits fo	minant migration?	YES		⊠ NO	
Are any drinking water wells im	pacted?				⊠ NO		
		C. SAM	INFORMATION				
Purpose for monitoring:					_	racterization ation Progress tability	
Product type:					□ Gasoline     □ Diesel     □ Waste O     □ Other		
Number of monitoring wells sar	mpled this o	quarter:			10		
Number of monitoring wells ins	talled:				14		
Groundwater sampling method	:				Low Flow No Purge Purge	е	
Groundwater analytical method	l(s):					260	
		D. SYS	STEM IN	NFORMATION			
Active remediation system:		System typ	e: N/A		Start-up dat	e (month, day, year	):
Number of extraction wells:					N/A		
Number of air sparge wells:					N/A		
Percent of time system was op	erational th	is quarter:			%		

	E. TANK(S) OWNE	ER INFORMATION	
Owner Name: East Chicago 2220 LL	_C		
Street Address (number and street):2220	0 East Columbus Drive		
City: East Chicago	State: IN	Z	IP Code: 46312
Contact Person: Kamlesh Kaur	·	Telephone Number: (317) 775-9923	
E-mail Address: rsingh9121@yahoo	.com		
	F. REPORT PREPAI	RER INFORMATION	
Company Name: IWM Consulting G	roup, LLC		
Street Address (number and street): 742	8 Rockville Road		
City: Indianapolis	State: IN	ZI	IP Code: 46214
Contact Person: Mandy Hall, CHMM	#13989	Telephone Number: (317) 347-1111	
E-mail Address: mhall@iwmconsult.	com		
	G. CERTIFICATION OF	REPORT COMPLETION	
statements in this document and	all attachments are true, a	st to the best of my knowledge and be accurate, and completed per 329 IAC 9 derground Storage Tank Section on th	)-5-7(f)(1)(L). I certify
Name Mandy Hall, CHMM #13989	Position Project Manager	Company IWM Consulting Group, LLC	Date (month, day, year) 6/28/2024
Environmental Professional Crede	entials Mandy	7 Hallate (month, day, year): 6/	/28/2024
Please note, per 329 IAC 9, this docu	erials Manager, or a Profes	Registered Professional Engineer, a Lice sional Soil Scientist. All must be specific	nsed Professional
Signature:		Date (month, day, year):	
Printed name:			
Signatura		Dete ( " " )	
Signature:		Date (month, day, year):	

Printed name:





# QUARTERLY MONITORING REPORT Columbus Mobil 2220 East Columbus Drive East Chicago, Lake County, Indiana IDEM Incident No. 201708516 IDEM Facility ID No. 22106

#### Prepared for:

Indiana Department of Environmental Management
Office of Land Quality
Petroleum Branch
Petroleum Remediation Section
100 North Senate Avenue, Room 1101
Indianapolis, Indiana 46204-2251

#### Prepared by:

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(317) 347-1111

IWM Project No. IN17024

June 28, 2024

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#### **EXECUTIVE SUMMARY**

This Quarterly Monitoring Report (QMR) is being submitted by IWM Consulting Group, LLC (IWM Consulting) to the Indiana Department of Environmental Management (IDEM) on behalf of East Chicago 2220 LLC and Zeena Food & Gas for the Columbus Mobil facility located at 2220 East Columbus Drive, East Chicago, Lake County, Indiana (site). The QMR summarizes the 2<sup>nd</sup> quarter groundwater sampling event of 2024.

On August 5, 2017, the flex line and leak detector for the regular gasoline product line failed the annual line and leak detector test. Additionally, the presence of free product within the tank sump was observed during the test, and the tank observation well was gauged by the tester, where approximately 12 inches of free product was detected. IWM Consulting was later retained by East Chicago 2220 LLC and mobilized to the site on August 28, 2017, to perform gauging activities for the tank observation well. Approximately 10.5 inches of free product were observed in the tank observation well, and IWM Consulting subsequently reported a confirmed release to IDEM on August 28, 2017, which indicated a confirmed release date of August 5, 2017 (Incident No. 201708516; FID No. 22106).

As part of Initial Site Characterization (ISC) activities, IWM Consulting obtained groundwater samples from existing monitoring wells MW-2 and MW-8 and vapor extraction wells VEW-1, VEW-3, VEW-5, and VEW-6. Soil samples were not obtained during ISC activities. Due to the presence of free product onsite at the time of the discovered release, free product abatement activities took precedence. Free product abatement activities were conducted via a vacuum truck on September 11 and September 19, 2017, and approximately 2,600 gallons of free product were recovered from the tank observation wells.

During ISC activities, groundwater analytical results indicated the presence of dissolved contaminants of concern (COCs) exceeding Remediation Closure Guide (R2) Groundwater Published Levels (GWPLs) in monitoring well MW-2 and vapor extraction wells VEW-1 and VEW-3.

Further Site Investigation (FSI) activities completed in August and September 2018 consisted of the advancement of two soil borings (IWM-1 and IWM-2) around the underground storage tank (UST) cavity and the installation of three replacement monitoring wells MW-1R, MW-S5R, and MW-7R. Soil samples from the soil borings installed around the UST cavity did not reveal volatile organic compound (VOC) concentrations exceeding R2 Excavation Soil Published Levels (XSPLs). Dissolved VOC concentrations exceeding R2 GWPLs were observed onsite and offsite to the north, east, and west. Vapor intrusion (VI) was deemed a concern for the residential properties north and northeast of the site due to the dissolved petroleum VOC concentrations in offsite monitoring well MW-8 and the presence of basements in the homes.

In June, July, and August 2019, IWM Consulting conducted three Enhanced Fluid Recovery (EFR) events on extraction wells VEW-2 and VEW-3. During the three EFR events, a total of approximately 10,400 gallons of petroleum-impacted groundwater was removed.

Five monitoring wells (MW-9 through MW-13) were installed on November 5 to 6, 2019, as part



of FSI activities. Soil samples were collected from onsite monitoring wells MW-11, MW-12, and MW-13 and submitted for VOC analysis. None of the soil samples exhibited VOC concentrations exceeding R2 XSPLs. Groundwater analytical results in offsite monitoring wells MW-9 and MW-10 did not reveal VOC concentrations exceeding R2 GWPLs. Therefore, the groundwater plume was delineated at that time.

IWM Consulting was able to obtain access to the residential property north of the site (4030 Pulaski Street) in order to conduct a VI investigation, as requested by IDEM in the *Site Characterization Approval and VI Investigation Request* letter dated January 19, 2019. IWM Consulting conducted the winter "worst-case scenario" VI investigation on January 29 to 30, 2020, and the summer "worst-case scenario" VI investigation on July 29 to 30, 2020. No COCs were detected in the indoor air or sub-slab vapor point samples exceeding laboratory detection levels. A tetrachloroethene (PCE) concentration was detected in the sub-slab sample; however, the concentration did not exceed the R2 Res Sub-Slab Published Level (RSSPL). PCE is not a COC for the site; therefore, the PCE detection is from a secondary offsite source.

In an email from IDEM dated September 20, 2019, IDEM requested the abandonment of the system wells associated with the 2000 incident. Therefore, the system wells were properly abandoned on October 15 to 18, 2019.

IWM Consulting submitted a draft environmental restrictive covenant (ERC) to IDEM on July 10, 2020, which was approved by IDEM on April 12, 2021. Additionally, IWM Consulting evaluated the groundwater data and determined that additional delineation was necessary north of the site. Therefore, IWM Consulting installed an additional monitoring well (MW-14) downgradient (north) of monitoring well MW-9 on March 5, 2021.

The monitoring well network at the site is sampled on a quarterly basis, as approved by IDEM in the *FSI Request* letter dated December 8, 2017. IWM Consulting completed the 2<sup>nd</sup> quarter groundwater sampling event of 2024 on May 16, 2024. During the quarterly sampling event, 10 monitoring wells (MW-2, MW-S5R, MW-7R, and MW-8 through MW-14) were gauged and sampled. Free product was detected in monitoring wells MW-11 and MW-12 this quarter. The product was purged from the wells, and both monitoring wells MW-11 and MW-12 were sampled. IWM Consulting has been placing two oil absorbent socks in monitoring wells MW-11 and MW-12 since November 2022 to assist in removing free product from the groundwater. Approximately 2.8 gallons of free product have been removed from the site via oil absorbent socks since November 2022.

A total of 10 monitoring wells were sampled for VOCs via the United States Environmental Protection Agency (USEPA) SW-846 Method 8260. Dissolved petroleum VOC concentrations exceeding R2 GWPLs were detected in eight of the 10 sampled monitoring wells. Free product has been detected in onsite monitoring wells MW-11 and/or MW-12 for at least eight consecutive quarters. In addition, the dissolved petroleum plume has migrated offsite to the north within the residential neighborhood. Groundwater samples collected from downgradient monitoring well MW-14 have exhibited petroleum VOC concentrations exceeding R2 GWPLs for over eight consecutive quarters; therefore, the dissolved petroleum plume is not delineated downgradient. IWM Consulting recommends active remediation of the dissolved petroleum plume and will prepare a Corrective Action Plan (CAP) at the request of IDEM.



Chlorinated VOC (cVOC) concentrations including PCE and trichloroethene (TCE) have been detected in groundwater samples collected from offsite monitoring wells MW-10 and MW-14 over the last eight quarters. The source of the PCE and TCE concentrations is unknown, but may be from a former drycleaner historically located on a property east of the site, and did not originate from the site.

The 3<sup>rd</sup> quarter 2024 groundwater gauging and sampling event is scheduled for August 2024.



#### 1.0 SITE DESCRIPTION

#### 1.1 Regional Location

The Columbus Mobil facility (site) is located within North Township, Lake County, Indiana. The site is located on the Whiting, Indiana 7.5-minute series United States Geological Survey (USGS) Quadrangle Map within Township 37 North, Range 9 West, in the southeast quarter of the southwest quarter of Section 22. The latitude and longitude coordinates are 41.639209 and -87.443940 respectively. Universal Transverse Mercator coordinates are 463026.36m Easting by 4609815.25m Northing in Zone 16T.

A topographic map illustrating the location of the site is provided as Figure 1 – Site Location Map.

#### 1.2 Site Location

- **1.2.1 Physical Description of the Site.** The site is located at 2220 East Columbus Drive in East Chicago, Indiana, on the northwest corner of the intersection of Columbus Drive and Pulaski Street. Based upon the USGS topographic map, the site is located at an elevation of approximately 589 feet above sea level, and the topography of the surrounding area is level, but likely slopes to the northeast.
- **1.2.2 Description of Adjacent Properties.** The site is bounded to the north by a public alleyway, followed by a residential property. East Pulaski Street borders the site to the east, followed by Tech Credit Union. The site is bounded to the south by East Columbus Drive, followed by the James W. Knight Public Safety Facility, which includes the East Chicago Police Department. A Subway restaurant is located on the adjacent property west of the site, followed by Main Street. The overall area is mixed commercial/residential use. The surrounding areas and properties are depicted on a map provided as **Figure 2 Site Vicinity Map.**
- **1.2.3 Site Plan.** The site is currently an active retail gas station and convenience store. The underground storage tank (UST) system currently consists of three 6,000-gallon fiberglass UST's containing gasoline, fiberglass reinforced plastic piping, and three dispenser islands. A remediation system trailer and extensive historical environmental borings, including soil borings, monitoring wells, soil vapor extraction wells, air sparge points, dual phase extraction wells, and water injection wells have been previously installed at the site as part of the historical Indiana Department of Environmental Management (IDEM) Incident No. 200007524. The system wells were properly abandoned by IWM Consulting, as requested by IDEM on October 15 to 18, 2019. The site features are displayed in **Figure 3 Site Map**.

Site utilities include a buried natural gas line and overhead electric lines on the north side of the property along the public alleyway. The natural gas line and overhead electric line enter the building on the northwest corner of the building. City sewers are located east and south of the site along Pulaski Street and East Columbus Drive. A water line is also present south of the site along East Columbus Drive. The location of the product lines onsite are unknown.



#### 2.0 FREE PRODUCT RECOVERY

Free product was observed in monitoring wells MW-11 (0.12 feet thick) and MW-12 (0.02 feet thick) during this quarter on May 16, 2024. Two oil absorbent socks were placed in both monitoring wells (MW-11 and MW-12) last quarter. All four oil absorbent socks were fully saturated with free product on May 16, 2024. The saturated socks were removed prior to gauging, and two new oil absorbent socks were placed in each monitoring well (MW-11 and MW-12) after sampling. A total of 0.40 gallons of free product were removed from the site since last quarter using oil absorbent socks. Approximately 2.8 gallons of free product has been removed from the site via oil absorbent socks placed in monitoring wells MW-11 and MW-12 since November 2022.

A total of approximately 2,600 gallons of free product was recovered via vacuum truck on September 11 and September 19, 2017.

Per the IDEM *Free Product Removal Request* letter dated May 17, 2019, IWM Consulting completed three enhanced fluid recovery (EFR) events on extraction wells VEW-2 and VEW-3. The three EFR events were completed over a 3-month period and removed a total of approximately 10,400 gallons of petroleum impacted groundwater from extraction wells VEW-2 and VEW-3. The first EFR event was completed on June 27, 2019, in which 3,500 gallons of petroleum-impacted groundwater were removed and disposed offsite. The second EFR event was completed on July 27, 2019, in which another 3,500 gallons of petroleum-impacted groundwater were removed. The final EFR event was completed on August 27, 2019, where 3,400 gallons of petroleum-impacted groundwater were removed. During the EFR events, IWM Consulting observed an influence in the groundwater level in monitoring well MW-7R, located offsite to the east, and monitoring well MW-8, located offsite to the north. Each EFR event was conducted over a four to six-hour time period and was terminated once the vacuum truck was full.



#### 3.0 ACTIVE REMEDIATION SYSTEM INFORMATION

No active remediation system is present at the subject site.

#### 3.1 Type of Remediation System

Not applicable for this site.

#### 3.2 Remediation System History

Three remediation systems, including a deactivated high-vacuum dual phase extraction (HVDPE) system, a soil vapor extraction (SVE) system, and an air sparge (AS) remediation system, have previously been active at the site. However, these remediation systems were previously used to remediate onsite contamination associated with a historical incident (Incident No. 200007524) reported in 2000. Therefore, the remediation system history is not affiliated with the active Incident No. 201708516.

In an email from IDEM dated September 20, 2019, IDEM requested that the remediation wells associated with the 2000 incident be abandoned. On October 15 to 18, 2019, the system wells were properly abandoned as requested by IDEM.

#### 3.3 Percent of Time Remediation System was Operational This Quarter

Not applicable for this site.

#### 3.4 Methods Utilized for Remediation System Sampling

Not applicable for this site.



#### 4.0 SAMPLING METHOD DESCRIPTION

#### 4.1 Sampling Methods Utilized

On May 16, 2024, IWM Consulting sampled 10 monitoring wells (MW-2, MW-S5R, MW-7R, and MW-8 through MW-14) at the site. Prior to sampling, the monitoring wells were opened, allowed to equilibrate, and then gauged with an electronic interface probe. The purge volumes were calculated from the well gauging data, and all 10 monitoring wells were purged of three well volumes utilizing disposable polyethylene bailers prior to sampling.

#### 4.2 Groundwater Sample Collection

Subsequent to purging, the monitoring wells were sampled utilizing disposable polyethylene bailers. Groundwater samples were collected and analyzed for volatile organic compounds (VOCs) using United States Environmental Protection Agency (USEPA) SW-846 Method 8260 and were placed in laboratory-supplied containers consisting of 40-mL vials preserved with hydrochloric acid. Sample containers were labeled, documented on a chain-of-custody record, placed in a cooler with ice, and then transported to Pace Analytical Services, LLC (Pace) in Indianapolis, Indiana.

#### 4.3 Quality Assurance/Quality Control (QA/QC) Samples

One field duplicate sample (designated DUP) was collected from monitoring well MW-12. A trip blank was also utilized for Quality Assurance/Quality Control (QA/QC) purposes.

#### 4.4 Unfiltered and/or Filtered Metals Samples

Metals are not a contaminant of concern (COC) at the subject site; therefore, no filtered or unfiltered metal samples were collected during this quarter.

#### 4.5 Decontamination Procedures and Purge Water Management

The electronic interface probe utilized to gauge the monitoring wells was decontaminated utilizing an Alconox® wash, followed by a tap water rinse and a final distilled water rinse. The monitoring wells were sampled utilizing disposable polyethylene bailers; therefore, sampling equipment decontamination was not applicable. Decontamination water and purged groundwater from eight of the 10 monitoring wells were placed into properly labeled 55-gallon drums and secured onsite for subsequent disposal by a licensed waste transporter.

Offsite monitoring wells MW-10 and MW-14 have contained trichloroethene (TCE) and/or tetrachloroethene (PCE) exceeding laboratory detection levels and Risk-based Closure Guide (R2) Groundwater Published Levels (GWPLs). Therefore, the purged water from these two monitoring wells was not placed in a drum for disposal. Since the total volume of the waste was less than 220 pounds and the site is considered a very small quantity generator (VSQG), per CFR 262.14 (a) (5) (iv), the purged water for these two monitoring wells was solidified with grout and placed in a commercial dumpster for disposal at a municipal landfill.



#### 4.6 Groundwater Sampling Locations

Groundwater sampling locations are presented in Figure 4 - Groundwater Analytical Map.

#### 4.7 Depth to Groundwater Measurements

A total of 10 monitoring wells were gauged on May 16, 2024, for groundwater elevation calculations and potentiometric mapping purposes. The average depth to groundwater was approximately 6.15 feet below ground surface (bgs) during the May 16, 2024 sampling event. Based on the well gauging data, the overall groundwater flow direction at the site during the May 16, 2024 groundwater gauging event was towards the northeast, which is consistent with previous quarters. Free product was observed in monitoring wells MW-11 at a thickness of 0.12 feet and MW-12 at a thickness of 0.02 feet. Depth to groundwater measurements for this quarterly sampling event are presented in **Table 1**. Groundwater elevations and groundwater flow directions are illustrated in **Figure 5 - Groundwater Elevation Map.** Historical groundwater gauging measurements are presented in **Appendix A**.

**Table 1** – Groundwater Gauging Summary (May 16, 2024)

Monitoring Well ID	Top of Casing Elevation	Depth to Groundwater	Groundwater Elevation	Free Product Thickness	Corrected Groundwater Elevation	Monitoring Well Depth	Monitoring Well Screen Interval
MW-2	100.13	6.63	93.50			10.02	
MW-S5R	99.92	6.47	93.45			10.00	
MW-7R	99.28	5.86	93.42			14.00	4.00-14.0
MW-8	99.46	6.17	93.29			16.00	
MW-9	98.91	5.67	93.24			13.80	3.80-13.80
MW-10	99.45	6.19	93.26			13.80	3.80-13.80
MW-11	99.67	6.38	93.29	0.12	93.38	13.48	3.48-13.48
MW-12	99.44	6.11	93.33	0.02	93.35	13.78	3.78-13.78
MW-13	99.60	6.09	93.51			13.74	3.74-13.74
MW-14	99.60	5.89	93.71			13.78	3.78-13.78

Table Note: All measurements in feet unless otherwise stated.

#### 4.8 Field Data

Field notes are presented in **Appendix B**. Stability parameter measurement data and field screening data were not applicable for this quarterly sampling event.



#### 5.0 DATA DISCUSSION AND RESULTS

#### **5.1 Groundwater Analytical Results**

The monitoring well network at the site is sampled on a quarterly basis. Ten monitoring wells were sampled and analyzed for VOCs on May 16, 2024. The groundwater analytical results were compared to the R2 GWPLs. This is the 25<sup>th</sup> monitoring event performed by IWM Consulting personnel.

Petroleum related VOC concentrations were detected exceeding R2 GWPLs in eight of the 10 sampled monitoring wells. The dissolved petroleum plume extends offsite to the north and is not delineated downgradient of monitoring well MW-14. An estimated extend of dissolved benzene concentrations is illustrated in **Figure 6 –Dissolved Benzene Isopleth Map**.

Please note that groundwater samples collected from two monitoring wells (MW-10 and MW-14) exhibited chlorinated VOCs (cVOCs) which originated from an offsite source. During historical research of the site area, a former drycleaner was present on a property east of the site, however, the actual source of the offsite cVOCs is unknown.

The results are summarized in **Table 2** on the following page and depicted in **Figure 4**. One field duplicate sample (designated DUP) was collected from monitoring well MW-12. The duplicate results were substantially similar to MW-12 (see **Table 2**). Historical groundwater analytical results are presented in **Appendix A**. The laboratory analytical report and chain-of-custody documentation are presented in **Appendix C**.



Table 2 – Groundwater Analytical Summary (May 16, 2024)

Monitoring Well ID	Benzene	Ethylbenzene	1- Methylnaphthalene	2- Methylnaphthalene	Naphthalene	Toluene	Total Xylenes
MW-2	12.9	8.3	47.3	<10	25.2	<5	<10
MW-S5R	21.5	11.5	40.9	<10	54.9	15.1	15.2
MW-7R	<5	<5	<10	<10	<1.2	<5	<10
MW-8	4,700	<5	15.7	<10	<1.2	10	<10
MW-9	15	<5	<10	<10	<1.2	<5	<10
MW-10	<5	<5	<10	<10	<1.2	<5	<10
MW-11	10,200	3,470	120	182	483	9,490	18,600
MW-12	6,950	2,270	117	192	411	5,460	12,000
MW-13	8.6	<5	10.4	<10	6.5	<5	10.8
MW-14	108	<5	<10	<10	<1.2	<5	<10
R2 GWPLs	5	700	10	40	1	1,000	10,000

All results in micrograms per liter ( $\mu g/L$ ). Historical groundwater analytical results are presented in **Appendix A** 



#### 5.2 Miscellaneous Sampling Data and Results

No miscellaneous sampling activities were completed during the 2<sup>nd</sup> quarter 2024.

As part of Initial Site Characterization (ISC) activities, IWM Consulting obtained groundwater samples from existing monitoring wells MW-2 and MW-8 and vapor extraction wells VEW-1, VEW-3, VEW-5, and VEW-6. Soil samples were not obtained during ISC activities. Due to the presence of free product onsite at the time of the discovered release, free product abatement activities took precedence. Free product abatement activities were conducted via a vacuum truck on September 11 and September 19, 2017, and approximately 2,600 gallons of free product were recovered from the tank observation wells.

During ISC activities, groundwater analytical results indicated the presence of dissolved COCs exceeding R2 GWPLs in monitoring well MW-2 and vapor extraction wells VEW-1 and VEW-3. The *ISC Report*, which was submitted to the IDEM on October 5, 2017, concluded that additional investigation was required in order to define the extent of both the soil and groundwater contamination and to more adequately characterize the lateral extent of free product located east-southeast of the current UST cavity.

IDEM reviewed the *ISC Report* and determined that a further site investigation (FSI) was required in order to fully delineate the nature and extent of contamination, which was stated in an email correspondence dated December 8, 2017. During FSI activities completed in August and September 2018, IWM Consulting oversaw the advancement of two soil borings (IWM-1 and IWM-2) around the UST cavity and the installation of three replacement monitoring wells MW-1R, MW-S5R, and MW-7R. Soil concentrations from the soil borings installed around the UST cavity did not reveal VOC concentrations exceeding R2 Excavation Soil Published Levels (XSPLs). Dissolved VOC concentrations exceeding R2 GWPLs were observed onsite and offsite to the east, north, and west of the site. Vapor intrusion (VI) was deemed a concern for the residential properties north and northeast of the site due to the dissolved VOC concentrations in offsite monitoring well MW-8 and the presence of basements in the homes. Following review of the *FSI Report*, IDEM approved the site characterization and requested a VI study in a *Site Characterization Approval and VI Investigation Request* letter dated January 19, 2019.

Per the IDEM *Free Product Removal Request* letter dated May 17, 2019, IWM Consulting conducted three EFR events on extraction wells VEW-2 and VEW-3. The first EFR event was completed on June 27, 2019, in which 3,500 gallons of petroleum-impacted groundwater were removed. The second EFR event was completed on July 27, 2019, in which another 3,500 gallons of petroleum-impacted groundwater were removed. The final EFR event was completed on August 27, 2019, where 3,400 gallons of petroleum-impacted water were removed.

IWM Consulting submitted an FSI Work Plan dated August 22, 2019, as requested by IDEM in an FSI Request letter dated August 15, 2019. In the FSI Work Plan, IWM Consulting proposed the installation of eight monitoring wells which included a monitoring well offsite north of monitoring well MW-8. IDEM approved five of the monitoring well locations via email on September 20, 2019, and the five monitoring wells (MW-9 through MW-13) were installed on November 5 to 6, 2019. Soil samples were collected from onsite monitoring wells MW-11,



MW-12, and MW-13 and submitted for VOC analysis. Adsorbed VOCs were not detected in the soil samples exceeding R2 XSPLs. Groundwater analytical results in offsite monitoring wells MW-9 and MW-10 did not reveal VOC concentrations exceeding R2 GWPLs. Therefore, the groundwater plume had been delineated at that time. An *FSI Report* summarizing both the installation of the five new monitoring wells and the accompanying soil analytical results was submitted to IDEM on December 13, 2019.

IWM Consulting was able to obtain access to the residential property north of the site (4030 Pulaski Street) in order to conduct a VI investigation, as requested by IDEM in the *Site Characterization Approval and VI Investigation Request* letter dated January 19, 2019. A subslab sampling point was installed in the basement of the residence on January 9, 2020. IWM Consulting conducted the winter "worst-case scenario" VI investigation on January 29 to 30, 2020, and the summer "worst-case scenario" VI investigation on July 29 to 30, 2020. No COCs were detected in the indoor air or sub-slab vapor point samples exceeding laboratory detection levels. A PCE concentration was detected in the sub-slab sample; however, the concentration did not exceed the R2 Res Sub-Slab Published Level (RSSPL). PCE is not a COC for the site; therefore, the PCE detection is from secondary offsite source.

In an email from IDEM dated September 20, 2019, IDEM requested the abandonment of the system wells associated with the 2000 incident. Therefore, the system wells were properly abandoned, as requested by IDEM, on October 15 to 18, 2019.

As requested in the *Further Site Investigation Review and Draft Environmental Restrictive Covenant (ERC) Request* letter dated May 12, 2020, IWM Consulting submitted a draft ERC to the IDEM on July 10, 2020, which was approved by IDEM on April 12, 2021. Additionally, IWM Consulting evaluated the groundwater data and determined that additional delineation was necessary north of the site. Therefore, IWM Consulting installed an additional monitoring well (MW-14) downgradient (north) of monitoring well MW-9 on March 5, 2021.



#### 6.0 CONCLUSIONS AND RECOMMENDATIONS

This QMR is being submitted to IDEM on behalf of East Chicago 2220 LLC and Zeena Food & Gas for the Columbus Mobil facility located at 2220 East Columbus Drive, East Chicago, Lake County, Indiana for the 2<sup>nd</sup> quarter groundwater sampling event of 2024.

The monitoring well network at the site is sampled on a quarterly basis. IWM Consulting most recently gauged and sampled 10 monitoring wells (MW-2, MW-S5R, MW-7R, MW-8 through MW-14) on May 16, 2024. Free product was detected in monitoring wells MW-11 and MW-12 which were sampled after the product was purged. IWM Consulting has been placing two oil absorbent socks in monitoring wells MW-11 and MW-12 since November 2022 to assist in removing free product from the groundwater. Approximately 2.8 gallons of free product have been removed from the site via oil absorbent socks since November 2022.

The monitoring well network was sampled for VOCs using USEPA SW-846 Method 8260. Dissolved petroleum VOC concentrations were detected in eight of the 10 monitoring wells exceeding R2 GWPLs. Free product has been detected in onsite monitoring wells MW-11 and/or MW-12 for at least eight consecutive quarters. In addition, the dissolved petroleum plume has migrated offsite to the north within the residential neighborhood. Groundwater samples collected from downgradient monitoring well MW-14 have exhibited petroleum VOC concentrations exceeding R2 GWPLs for over eight consecutive quarters; therefore, the dissolved petroleum plume is not delineated downgradient. IWM Consulting recommends active remediation of the dissolved petroleum plume and will prepare a Corrective Action Plan (CAP) at the request of IDEM.

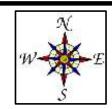
CVOC concentrations including PCE and TCE have been detected in groundwater samples collected from offsite monitoring wells MW-10 and MW-14 over the last eight quarters. The source of the PCE and TCE concentrations is unknown, but may be from a former drycleaner historically located on a property east of the site, and did not originate from the site.

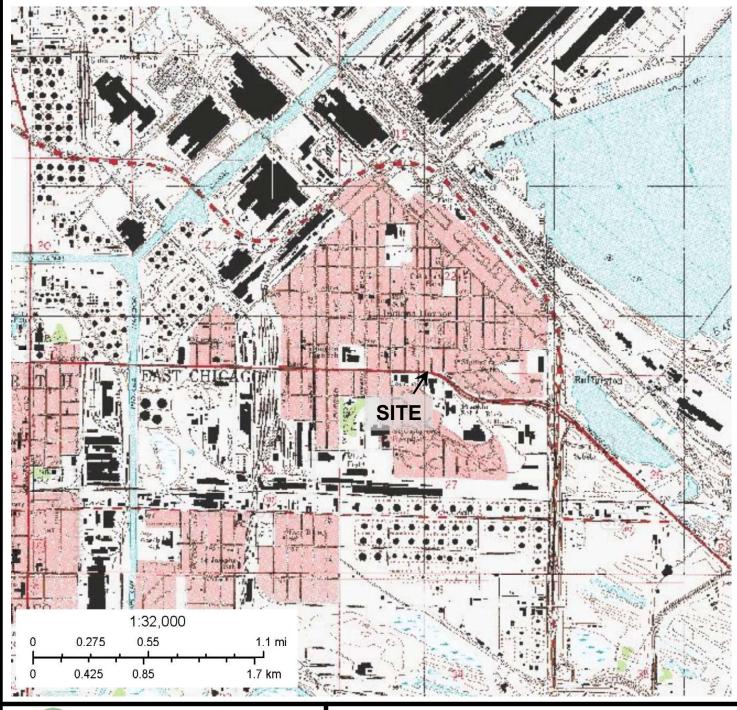
The 3<sup>rd</sup> quarter 2024 groundwater gauging and sampling event is scheduled for August 2024.



### **FIGURES**









7428 Rockville Road, Indianapolis, Indiana 46214 (317) 347-1111 Fax: (317) 347-9326

Project Task Size Date IN17024 27 A 10/05/2017

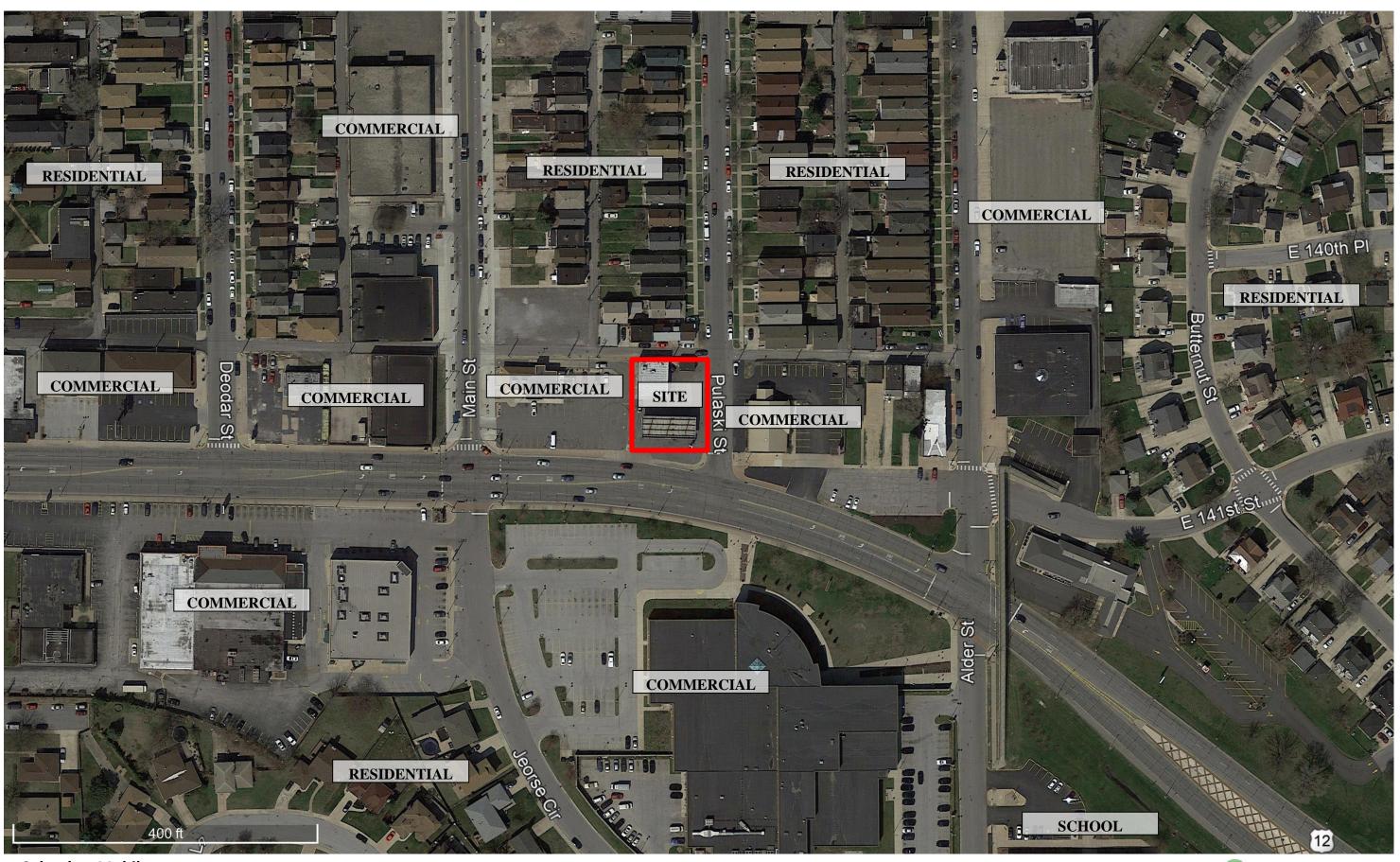
FIGURE 1

Site Location Map Columbus Mobil 2220 East Columbus Drive East Chicago, Lake County, Indiana

CLIENT

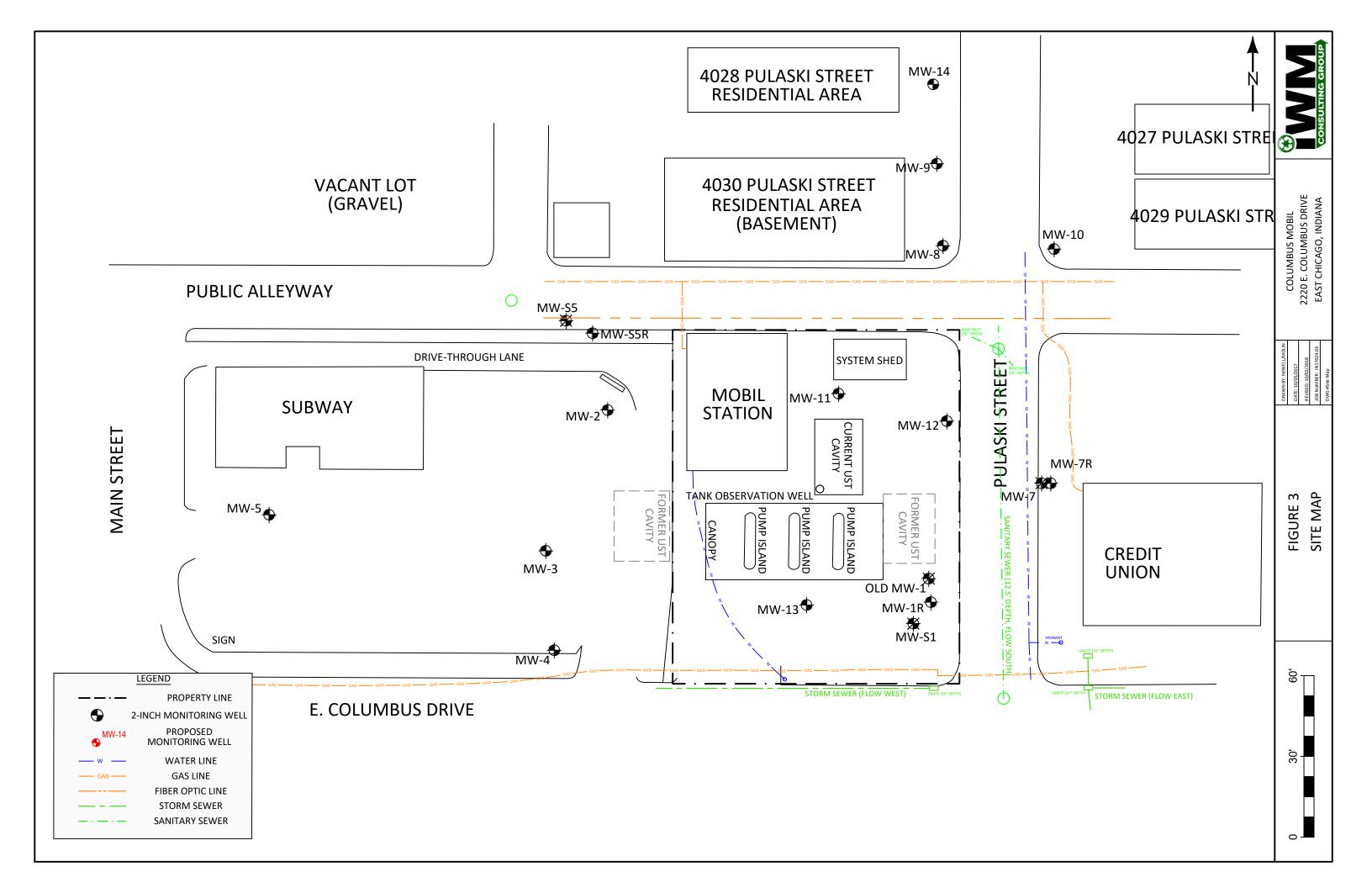
EAST CHICAGO 2220 LLC INDIANAPOLIS, INDIANA

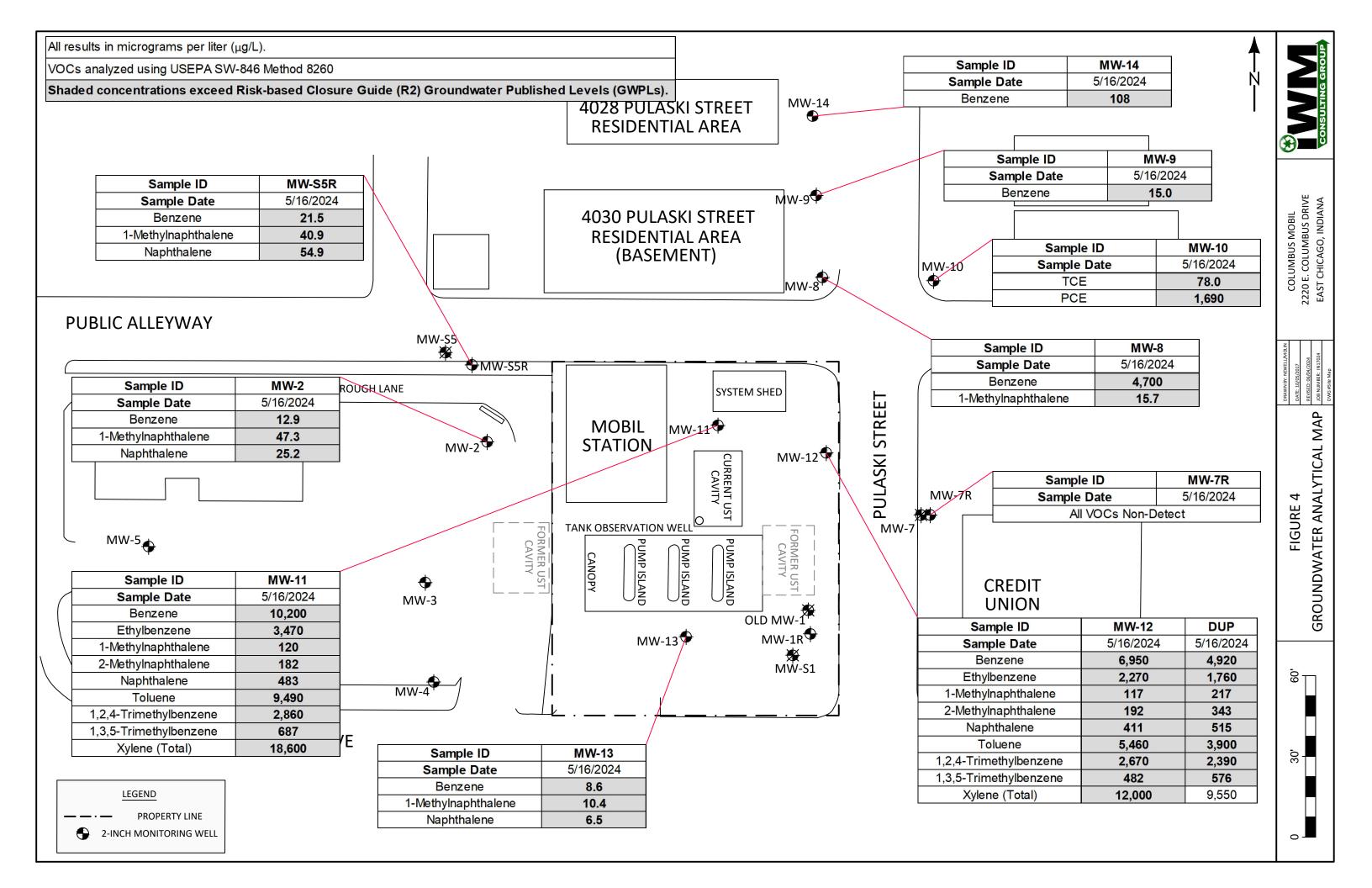
Figure 2 – Site Vicinity Map

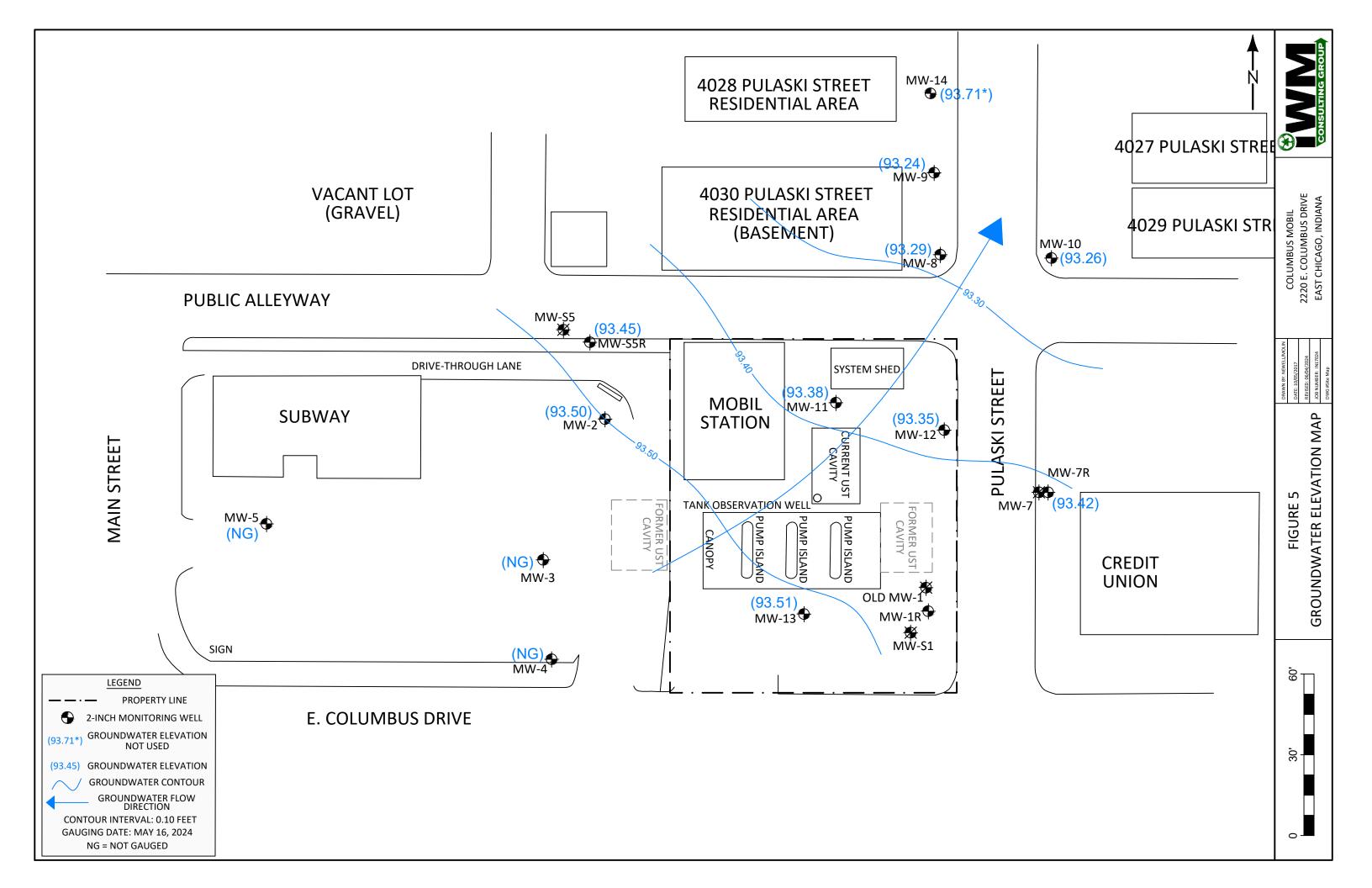


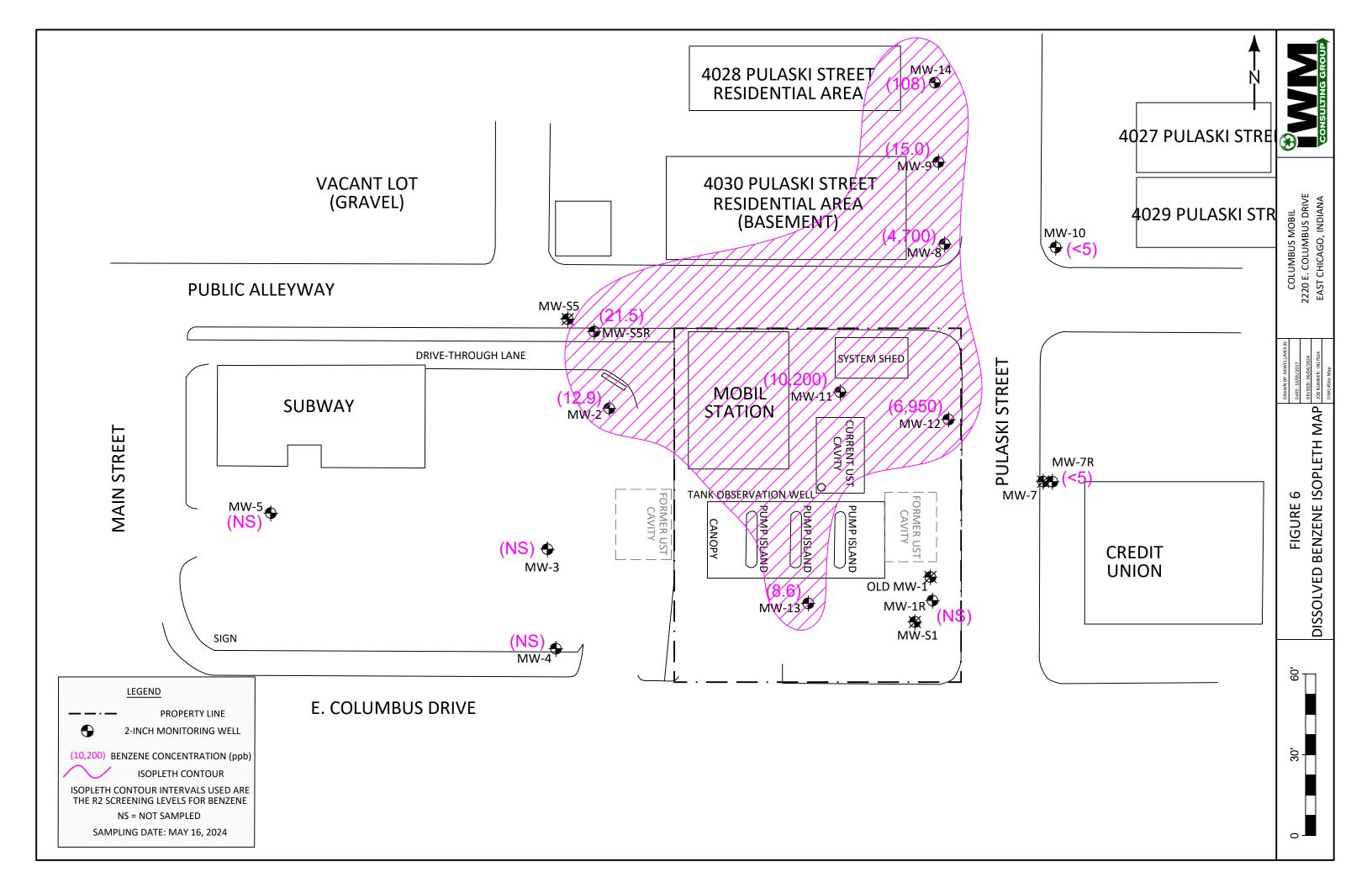
Columbus Mobil
2220 E. Columbus Drive
East Chicago, Indiana
Image from Google Earth.











### **APPENDICES**



## APPENDIX A

## **Historical Groundwater Summary Tables**



#### Table 1 Groundwater Gauging and Well Data Summary Columbus Mobil 2220 East Columbus Drive East Chicago, Indiana

#### FID No. 22106 / LUST Incident No. 201708516

Sample ID	Sample Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Corrected Groundwater Elevation (feet)	Monitoring Well Depth (feet BGS)	Monitoring Well Screen Interval (feet)
MW-2	8/31/2022	100.13	7.17	92.96		92.96	10.02	
	11/1/2022	100.13	7.07	93.06		93.06	10.02	
	1/30/2023	100.13	7.15	92.98		92.98	10.02	
	4/26/2023	100.13	6.94	93.19		93.19	10.02	
	7/11/2023	100.13	6.79	93.34		93.34	10.02	
	10/20/2023	100.13	6.73	93.40		93.40	10.02	
	1/25/2024	100.13	6.78	93.35		93.35	10.02	
	5/16/2024	100.13	6.63	93.50		93.50	10.02	
MW-S5R	8/31/2022	99.92	7.06	92.86		92.86	10.00	
	11/1/2022	99.92	6.95	92.97		92.97	10.00	
	1/30/2023	99.92	7.04	92.88		92.88	10.00	
	4/26/2023	99.92	6.83	93.09		93.09	10.00	
	7/11/2023	99.92	6.67	93.25		93.25	10.00	
	10/20/2023	99.92	6.61	93.31		93.31	10.00	
	1/25/2024	99.92	6.64	93.28		93.28	10.00	
	5/16/2024	99.92	6.47	93.45		93.45	10.00	
MW-7R	8/31/2022	99.28	6.27	93.01		93.01	14.00	4.00 - 14.00
	11/1/2022	99.28	6.18	93.10		93.10	14.00	4.00 - 14.00
	1/30/2023	99.28	6.13	93.15		93.15	14.00	4.00 - 14.00
	4/26/2023	99.28	7.93	91.35		91.35	14.00	4.00 - 14.00
	7/11/2023	99.28	6.28	93.00		93.00	14.00	4.00 - 14.00
	10/20/2023	99.28	5.95	93.33		93.33	14.00	4.00 - 14.00
	1/25/2024	99.28	5.92	93.36		93.36	14.00	4.00 - 14.00
	5/16/2024	99.28	5.86	93.42		93.42	14.00	4.00 - 14.00
MW-8	8/31/2022	99.46	6.69	92.77		92.77	16.00	
	11/1/2022	99.46	6.58	92.88		92.88	16.00	
	1/30/2023	99.46	6.50	92.96		92.96	16.00	
	4/26/2023	99.46	6.42	93.04		93.04	16.00	
	7/11/2023	99.46	6.28	93.18		93.18	16.00	
	10/20/2023	99.46	6.29	93.17		93.17	16.00	
	1/25/2024	99.46	6.25	93.21		93.21	16.00	
	5/16/2024	99.46	6.17	93.29		93.29	16.00	
MW-9	8/31/2022	98.91	6.22	92.69		92.69	13.80	3.80 - 13.80
	11/1/2022	98.91	6.06	92.85		92.85	13.80	3.80 - 13.80
	1/30/2023	98.91	6.06	92.85		92.85	13.80	3.80 - 13.80
	4/26/2023	98.91	5.91	93.00		93.00	13.80	3.80 - 13.80
	7/11/2023	98.91	5.84	93.07		93.07	13.80	3.80 - 13.80
	10/20/2023	98.91	5.79	93.12		93.12	13.80	3.80 - 13.80
	1/25/2024	98.91	5.78	93.13		93.13	13.80	3.80 - 13.80
	5/16/2024	98.91	5.67	93.24		93.24	13.80	3.80 - 13.80
MW-10	8/31/2022	99.45	6.68	92.77		92.77	13.80	3.80 - 13.80
	11/1/2022	99.45	6.57	92.88		92.88	13.80	3.80 - 13.80
	1/30/2023	99.45	6.52	92.93		92.93	13.80	3.80 - 13.80
	4/26/2023	99.45	6.36	93.09		93.09	13.80	3.80 - 13.80
	7/11/2023	99.45	5.94	93.51		93.51	13.80	3.80 - 13.80
	10/20/2023	99.45	6.27	93.18		93.18	13.80	3.80 - 13.80
	1/25/2024	99.45	6.24	93.21		93.21	13.80	3.80 - 13.80
	5/16/2024	99.45	6.19	93.26		93.26	13.80	3.80 - 13.80



## Table 1 Groundwater Gauging and Well Data Summary Columbus Mobil 2220 East Columbus Drive East Chicago, Indiana

FID No. 22106 / LUST Incident No. 201708516

Sample ID	Sample Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Corrected Groundwater Elevation (feet)	Monitoring Well Depth (feet BGS)	Monitoring Well Screen Interval (feet)
MW-11	8/31/2022	99.67	6.95	92.72	0.21	92.87	13.48	3.48 - 13.48
	11/1/2022	99.67	6.98	92.69	0.32	92.93	13.48	3.48 - 13.48
	1/30/2023	99.67	6.69	92.98	0.02	93.00	13.48	3.48 - 13.48
	4/26/2023	99.67	6.68	92.99	0.03	93.01	13.48	3.48 - 13.48
	7/11/2023	99.67	6.47	93.20	0.06	93.25	13.48	3.48 - 13.48
	10/20/2023	99.67	6.46	93.21	0.10	93.29	13.48	3.48 - 13.48
	1/25/2024	99.67	6.41	93.26	0.01	93.27	13.48	3.48 - 13.48
	5/16/2024	99.67	6.38	93.29	0.12	93.38	13.48	3.48 - 13.48
MW-12	8/31/2022	99.44	6.70	92.74	0.22	92.90	13.78	3.78 - 13.78
	11/1/2022	99.44	7.01	92.43	0.62	92.90	13.78	3.78 - 13.78
	1/30/2023	99.44	6.43	93.01	0.01	93.02	13.78	3.78 - 13.78
	4/26/2023	99.44	6.28	93.16	0.01	93.17	13.78	3.78 - 13.78
	7/11/2023	99.44	6.20	93.24		93.24	13.78	3.78 - 13.78
	10/20/2023	99.44	6.19	93.25	0.02	93.27	13.78	3.78 - 13.78
	1/25/2024	99.44	6.14	93.30		93.30	13.78	3.78 - 13.78
	5/16/2024	99.44	6.11	93.33	0.02	93.35	13.78	3.78 - 13.78
MW-13	8/31/2022	99.60	6.79	92.81		92.81	13.74	3.74 - 13.74
	11/1/2022	99.60	6.53	93.07		93.07	13.74	3.74 - 13.74
	1/30/2023	99.60	6.55	93.05		93.05	13.74	3.74 - 13.74
	4/26/2023	99.60	6.33	93.27		93.27	13.74	3.74 - 13.74
	7/11/2023	99.60	6.16	93.44		93.44	13.74	3.74 - 13.74
	10/20/2023	99.60	6.21	93.39		93.39	13.74	3.74 - 13.74
	1/25/2024	99.60	6.23	93.37		93.37	13.74	3.74 - 13.74
	5/16/2024	99.60	6.09	93.51		93.51	13.74	3.74 - 13.74
MW-14	8/31/2022	99.60	6.44	93.16		93.16	13.78	3.78 - 13.78
	11/1/2022	99.60	6.29	93.31		93.31	13.78	3.78 - 13.78
	1/30/2023	99.60	6.32	93.28		93.28	13.78	3.78 - 13.78
	4/26/2023	99.60	6.14	93.46		93.46	13.78	3.78 - 13.78
	7/11/2023	99.60	6.25	93.35		93.35	13.78	3.78 - 13.78
	10/20/2023	99.60	6.01	93.59		93.59	13.78	3.78 - 13.78
	1/25/2024	99.60	6.00	93.60		93.60	13.78	3.78 - 13.78
	5/16/2024	99.60	5.89	93.71		93.71	13.78	3.78 - 13.78

Notes:

BGS: Below Ground Surface

\*During the groundwater sampling events completed on 2/23/2022 and 6/14/2022, free product was observed in MW-11 and MW-12; however, the interface probe malfunctioned and did not detect the product. Therefore, product thickness could not be determined.



#### Table 2 **Groundwater Data Summary Columbus Mobil** 2220 East Columbus Drive East Chicago, Indiana FID No. 22106 / LUST Incident No. 201708516

			Potential Petroleum Contaminants  Output  Outp																cVOC	S		
Sample ID	Sample Date	Benzene	2-Butanone (MEK)	n-Butylbenzene	sec-butylbenzene	Ethylbenzene	n-Hexane	Isopropylbenzene (Cumene)	p-Isopropyitoluene	1-Methylnaphthalene	2-Methylnaphthalene	MTBE	Naphthalene	n-Propylbenzene	Toluene	1,2,4- Trimethylbenzene	1,3,5- Trimethylbenzene	Xylene (Total)	Vinyl Chloride	cis-1,2- Dichloroethene	Trichloroethene (TCE)	Tetrachloroethene (PCE)
	vater Publisehd evels	5	6,000	1,000	2,000	700	2,000	500	NE	10	40	100	1	700	1,000	60	60	10,000	2	70	5	5
MW-2	8/31/2022	15.4	<25	11.3	5.9	13.7	13.4	36.1	<5	47.4	<10	<4	40.5	99.5	<5	<5	<5	<10	<2	<5	<5	<5
	11/1/2022	12.7	<25	8.3	<5	8.7	12.4	18.5	<5 -	32.6	<10	<4	31.0	58.3	<b>&lt;</b> 5	<b>&lt;</b> 5	<5 -	<10	<2	<5 -	<b>&lt;</b> 5	<b>&lt;</b> 5
	1/30/2023	17.6 14.8	<25 <25	11.2 13.9	5.5 6.5	11.8 13.7	24.9 11.6	30.0 34.6	<5 <5	40.8 63.4	<10 <10	<4 <4	31.0 63.0	90.0	<5 <5	<5 <5	<5 <5	<10 <10	<2 <2	<5 <5	<5 <5	<5 <5
	4/26/2023 7/11/2023	20.2	<25	16.2	9.5	21.4	18.7	52.8	<5 <5	70.3	<10	<4	163	185	<5 <5	<5 <5	<5 <5	16.3	<2	<5 <5	<5 <5	<5 <5
	10/20/2023	18.0	<25	14.2	7.3	15.7	15.0	45.8	<5 <5	71.8	19.2	<4	123	133	<5			12.5	<2	<5 <5	<5	<5
	1/25/2024	8.3	<25	8.7	<5	5.0	7.2	16.2	<5	34.6	<10	<4	44.8	43.7	<5	<5	<5	<5	<2	<5	<5	<5
	5/16/2024	12.9	<25	18.3	8.8	8.3	15.6	39.7	<5	47.3	<10	<4	25.2	92.8	<5	<5	<5	<10	<2	<5	<5	<5
MW-S5R	8/31/2022	<b>&lt;</b> 5	60.3	8.2	5.2	20.2	20.6	32.0	<5	47.2	15.7	<4	70	82.8	18.7	<5	9	33	<2	<5	<5	<5
	11/1/2022	<5	<25	10.2	<5	24.6	29.7	26.7	<5	45.3	25.3	<4	110	76.2	22.1	<5	12.8	40.8	<2	<5	<5	<5
	1/30/2023	5.9	<25	12.1	5.7	48.1	33.3	33.5	<5	50.2	24.6	<4	113	95.7	27.0	<5	14.7	55.8	<2	<5	<5	<5
	4/26/2023	21.9	<25	8.0	<5	28.3	22.4	21.1	<5	44.5	28.6	<4	112	50.6	18.1	<5	12.1	49.5	<2	<5	<5	<5
	7/11/2023	50.5	<25	<5 -	5.0	27.1	25.5	29.0	<5 -	39.8	25.4	<4	137	101	23.2	<b>&lt;</b> 5	9.5	33.6	<2	<5	<5	<5
	10/20/2023	<5 <5	<25 32.8	<5 5.0	5.0 <5	6.7 10.4	10 12.8	20.3 12.5	<5 <5	30.0 26.8	<10 <10	<4 <4	51.1	48.3 32.9	9.9	<5 <5	<5 <5	11.3 14.5	<2 <2	<5 <5	<5 <5	<5
	1/25/2024 5/16/2024	21.5	32.8 <25	5.8 6.4	<5 <5	11.5	14.1	36.6	<5 <5	40.9	<10	<4	50.0 54.9	86.0	13.0 15.1	<5 <5	<5 <5	15.2	<2	<5 <5	<5 <5	<5 <5
MW-7R	8/31/2022	164	<25	<5	<5	<5	<5	7.8	<5	<10	<10	<4	<1.2	16.5	<5	<del>-5</del>	<del></del>	<10	<2	<5	<5	<5
	11/1/2022	29.3	<25	<5	<5	<5	<5	5.1	<5	<10	<10	<4	<1.2	11.2	<5	<u> </u>	<u> </u>	<10	<2	<5	<5	<5
	1/30/2023	9.0	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	9.9	<5	<5	<5	<10	<2	<5	<5	<5
	4/26/2023	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	7/11/2023	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	10/20/2023	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	1/25/2024	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	5/16/2024	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5



## Table 2 Groundwater Data Summary Columbus Mobil 2220 East Columbus Drive East Chicago, Indiana

East Chicago, Indiana FID No. 22106 / LUST Incident No. 201708516

									Potential P	etroleum Co	ntaminants									cVOC		
Sample ID	Sample Date	Benzene	2-Butanone (MEK)	n-Butylbenzene	sec-butylbenzene	Ethylbenzene	n-Hexane	Isopropylbenzene (Cumene)	p-Isopropyltoluene	1-Methylnaphthalene	2-Methylnaphthalene	MTBE	Naphthalene	n-Propylbenzene	Toluene	1,2,4- Trimethylbenzene	1,3,5- Trimethylbenzene	Xylene (Total)	Vinyl Chloride	cis-1,2- Dichloroethene	Trichloroethene (TCE)	Tetrachloroethene (PCE)
	rater Publisehd evels	5	6,000	1,000	2,000	700	2,000	500	NE	10	40	100	1	700	1,000	60	60	10,000	2	70	5	5
MW-8	8/31/2022	2,120	<25	<5	<5	<5	<5	41.6	<5	15	<10	<4	1.2	78.1	6.1	<5	<5	<10	<2	<5	<5	<5
	11/1/2022	2,870	<25	<5	<5	<5	<5	30.8	<5	15.9	<10	<4	<1.2	65.4	9.9	<5	<5	<10	<2	<5	<5	<5
DUP	11/1/2022	3,030	<25	<5	<5	<5	<5	34.6	<5	17.7	<10	<4	<1.2	75.8	11	<5	<5	<10	<2	<5	<5	<5
	1/30/2023	3,000	<25	<5	<5	<5	<5	34.0	<5	15.2	<10	<4	<1.2	78.8	10.1	<5	<5	<10	<2	<5	<5	<5
DUP	1/30/2023	3,070	<25	<5	<5	<5	<5	32.4	<5	13.8	<10	<4	<1.2	70.8	9.9	<5	<5	<10	<2	<5	<5	<5
	4/26/2023	2,800	<25	<b>&lt;</b> 5	<b>&lt;</b> 5	<b>&lt;</b> 5	<b>&lt;</b> 5	26.1	<b>&lt;</b> 5	17.1	<10	<4	<1.2	62.7	7.9	<5	<b>&lt;</b> 5	<10	<2	<5 -	<b>&lt;</b> 5	<b>&lt;</b> 5
DUP	4/26/2023	3,000	<25	<5	<b>&lt;</b> 5	<5	<5	28.5	<5	28.4	19.3	<4	6.8	71.5	8.4	5.6	<5	<10	<2	<5	<5	<5
5115	7/11/2023	2,620	<25	<5 <50	<5	<5 <50	<5 <50	37.0 <50	<5 <50	<b>31.0</b> <100	<10 <100	<4 <40	<1.2	126	11.3	<5 <50	<5 <50	<10 <100	<2	<5 <50	<5 <50	<5 <5
DUP	7/11/2023 10/20/2023	2,510 5.190	<250 <250	<50 <50	<50 <50	<50 <50	<50 <50	30.5	<50 <50	<b>27.5</b>	<100	<40 <40	<12 <12	78.2 86.1	<50 7.5	<50 <50	<50 <50	<100	<20 <20	<50 <50	<50 <50	<50 <50
	1/25/2024	3.810	<125	<25	<25	<25	<25	26.4	<25	<50	<50	<20	<6	85.2	<25	<25	<25	<25	<10	<25	<25	<30 <25
	5/16/2024	4.700	<25	<5	<5	<5	<5	21.9	<5	15.7	<10	<4	<1.2	65	10	<5	<5	<10	<2	<5	<5	<5
MW-9	8/31/2022	347	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	11/1/2022	83.9	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	1/30/2023	49.5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	4/26/2023	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	4.2	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	7/11/2023	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	4.3	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	*10/20/2023	30.9	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	3.8	<5	<5	<5	<5	<10	<2	<5	<5	<5
	1/25/2024	<5	<25	<b>&lt;</b> 5	<5	<5	<5	<5	<5	<10	<10	4.3	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	5/16/2024	15	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5



## Table 2 Groundwater Data Summary Columbus Mobil 2220 East Columbus Drive East Chicago, Indiana

East Chicago, Indiana FID No. 22106 / LUST Incident No. 201708516

									Potential P	etroleum Co	ontaminants									cVOC	S	
Sample ID	Sample Date	Benzene	2-Butanone (MEK)	n-Butylbenzene	sec-butylbenzene	Ethylbenzene	n-Hexane	Isopropylbenzene (Cumene)	p-Isopropyltoluene	1-Methylnaphthalene	2-Methylnaphthalene	MTBE	Naphthalene	n-Propylbenzene	Toluene	1,2,4- Trimethylbenzene	1,3,5- Trimethylbenzene	Xylene (Total)	Vinyl Chloride	cis-1,2- Dichloroethene	Trichloroethene (TCE)	Tetrachloroethene (PCE)
	vater Publisehd evels	5	6,000	1,000	2,000	700	2,000	500	NE	10	40	100	1	700	1,000	60	60	10,000	2	70	5	5
MW-10	8/31/2022	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	67.2	29.7	6,220
	11/1/2022	8.5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	120	215	4,610
	1/30/2023	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	32.1	107	3,310
	4/26/2023	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	53.5	110	4,490
	7/11/2023	<50	<250	<50	<50	<50	<50	<50	<50	<100	<100	<40	<12	<50	<50	<50	<50	<100	<20	68.9	<50	8,370
	*10/20/2023	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	102	127	1,870
	1/25/2024	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	4.5	80.8	90.4	1,540
	5/16/2024	<5	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	46	78	1,690
MW-11	8/31/2022	16,900	<25,000	110,000	21,400	233,000	36,900	38,600	15,600	89,000	158,000	<4,000	100,000	145,000	80,600	148,000	254,000	262,000	<2,000	<5,000	<5,000	<5,000
DUP	8/31/2022	<25,000	<125,000	52,300	<25,000	51,400	40,300	<25,000	<25,000	109,000	181,000	<20,000	75,900	49,400	<25,000	339,000	98,600	335,000	<10,000	<25,000	<25,000	<25,000
	11/1/2022		_						T	Not Sampl	led Due to Fr	ee Product (t	hickness 0.3	2 feet)								
	1/30/2023	13,100	<25,000	<5,000	<5,000	<5,000	<5,000	<5,000	<5,000	<10,000	16,700	<4,000	6,210	<5,000	<5,000	17,800	<5,000	13,500	<2,000	<5,000	<5,000	<5,000
	4/26/2023	32,500	<25,000	96,400	19,100	182,000	36,900	35,200	14,000	886,000	1,680,000	<4,000	105,000	126,000	71,200	5,190,000	211,000	10,000,000	<2,000	<5,000	<5.000	<5.000
	7/11/2023	17,100	<250	<50	<50	2,660	392	166	<50	232	354	<40	756	553	8,810	3,580	880	14,100	<20	<50	<50	<50
	10/20/2023	12,600	<250	155	<50	3,990	444	135	<50	400	723	<40	822	362	11,300	2,890	615	22,300	<20	<50	<50	<50
	1/25/2024	10,300	<50	<50	<50	3,520	396	225	<50	247	446	<40	760	550	5,750	4,400	897	19,500	<20	<50	<50	<50
	5/16/2024	10,200	<250	97	<50	3,470	704	160	<50	120	182	<40	483	437	9,490	2,860	687	18,600	<20	<50	<50	<50
MW-12	8/31/2022	<25,000	<125,000	67,300	<25,000	91,800	86,300	<25,000	<25,000	116,000	190,000	<20,000	107,000	58,300	112,000	428,000	111,000	532,000	<10,000	<25,000	<25,000	<25,000
	11/1/2022	0.000	-05.000	·E 000	.5.000	0.450	.E 000	.5.000	-5.000		led Due to Fr	`			40.000	40.000	E 400	40.400	.0.000	-5.000	-5.000	-5.000
	1/30/2023	8,620	<25,000 <25,000	<5,000	<5,000	8,150	<5,000	<5,000	<5,000	<10,000	<10,000	<4,000	4,510	<5,000	19,000	19,900	5,190	48,400	<2,000	<5,000	<5,000	<5,000 <5,000
	4/26/2023	11,300		84,800	15,600	119,000	49,800	24,800	12,000	152,000	273,000	<4,000	95,400	91,100	84,500	834,000	163,000	771,000	<2,000	<5,000	<5,000	
	7/11/2023	7,640	<250	<50	<50	2,110	329	121	<50	221	360	<40	606	399	10,200	2,790	653	11,600	<20	<50	<50	<50
DUD	10/20/2023	6,830 6.090	<250 <250	933 287	185	4,070 2,570	601 353	303 173	148 51.3	684 647	1,720 1,240	<40 <40	1,700 1,130	<b>1,260</b> 547	10,100 11,200	19,100 8,550	2,440 1,020	24,400 24,200	<20 <20	<50 <50	<50 <50	<50 <50
DUP	10/20/2023	5,060	<250 <50	287 <50	55.9 62.1	1,800	585	167	51.3 <50	373	1,240	<40 <40	601	474		2,520	798	10,300	<20 <20	<50 <50	<50 <50	<50 <50
DUP	1/25/2024 1/25/2024	4,320	<50 <50	142	<50	1,800	405	107	<50 <50	172	298	<40 <40	366	288	4,300 2,620	1.640	472	8,320	<20	<50 <50	<50 <50	<50 <50
DOP	5/16/2024	6,950	<125	<25	<25	2,270	259	98	<25	117	192	<20	411	280	5,460	2,670	482	12,000	<10	<25	<25	<25
DUP	5/16/2024	4.920	<250	<50	<50	1.760	262	114	<50	217	343	<40	515	331	3,460	2,870	576	9.550	<20	<50	<50	<50
DOI	3/10/2024	4,320	~230	<b>\</b> 30	<b>\</b> 30	1,700	202	114	<b>\</b> 30	211	343	<b>\40</b>	313	331	3,900	2,390	370	9,000	~20	<b>\</b> 30	\00	<b>\</b> 00



#### Table 2 Groundwater Data Summary Columbus Mobil 2220 East Columbus Drive

East Chicago, Indiana FID No. 22106 / LUST Incident No. 201708516

									Potential P	etroleum Co	ntaminants									cVOC	S	
Sample ID	Sample Date	Benzene	2-Butanone (MEK)	n-Butylbenzene	sec-butylbenzene	Ethylbenzene	n-Hexane	Isopropylbenzene (Cumene)	p-Isopropyltoluene	1-Methylnaphthalene	2-Methylnaphthalene	MTBE	Naphthalene	n-Propylbenzene	Toluene	1,2,4- Trimethylbenzene	1,3,5- Trimethylbenzene	Xylene (Total)	Vinyl Chloride	cis-1,2- Dichloroethene	Trichloroethene (TCE)	Tetrachloroethene (PCE)
	vater Publisehd evels	5	6,000	1,000	2,000	700	2,000	500	NE	10	40	100	1	700	1,000	60	60	10,000	2	70	5	5
MW-13	8/31/2022	15.7	<25	<5	<5	<5	<5	13.1	<5	13.0	<10	<4	15.1	25.0	<5	5.2	<5	12.2	<2	<5	<5	<5
	11/1/2022	43.4	<25	5.4	<5	<5	6.2	24.5	<5	26.7	<10	<4	37.4	54.0	<5	7.8	<5	18.0	<2	<5	<5	<5
	1/30/2023	13.3	<25	6.6	5.3	<5	<5	27.8	<5	26.2	<10	<4	41.7	60.2	<5	6.9	<5	10.3	<2	<5	<5	<5
	4/26/2023	9.6	<25	<5	<5	<5	<5	19.8	<5	26.7	<10	<4	33.4	40.9	<5	5.8	<5	<10	<2	<5	<5	<5
	7/11/2023	22.7	<25	<5	6.5	7.7	5.2	31.1	<5	45.9	11.8	<4	64.2	95.9	<5	19.0	6.0	44.1	<2	<5	<5	<5
	10/20/2023	5.1	<25	<5	<5	<5	<5	8.9	<5	16.5	<10	<4	8.7	19.8	<5	<5	<5	<10	<2	<5	<5	<5
	1/25/2024	<5	<25	<5	<5	<5	<5	8.5	<5	13.3	<10	<4	8.5	18.8	<5	5.4	<5	<10	<2	<5	<5	<5
	5/16/2024	8.6	<25	<5	<5	<5	<5	7.6	<5	10.4	<10	<4	6.5	18.6	<5	<5	<5	10.8	<2	<5	<5	<5
MW-14	8/31/2022	15	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	11/1/2022	24	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5	<5	<5	<5	<10	<2	<5	<5	<5
	1/30/2023	25.6	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5 	<5	<5 -5	<5	<10	<2	<5	<5	<5
	4/26/2023	24	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5 	<5	<5 -5	<5	<10	<2	<5	<5	5.6
	7/11/2023	22.1	<25	<5	<5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5 <5	<5 -5	<5	<5	<10	<2	<5	<5	9.3
	10/20/2023	44.4	<25	<5	<5 -5	<5	<5	<5	<5	<10	<10	<4	<1.2	<5 <5	<5 -5	<5	<5	<10	<2	<5	<5	7.2
	1/25/2024 5/16/2024	41.0	<25 <25	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	<10	<10 <10	<4 <4	<1.2 <1.2	<5 <5	<5 <5	<5 <5	<5 <5	<10 <10	<2 <2	<5 <5	<5 <5	<b>5.2</b> <5
i	5/16/2024	108	<b>&lt;</b> 20	<0	<5	<0	<5	<2	<5	<10	< 1U	<u>~4</u>	<1.Z	<-D	<2	<ol> <li>C</li> </ol>	<5	< 10	<b>&lt;</b> Z	<5	<5	<5

#### Notes:

All samples obtained by IWM Consulting personnel and analyzed at Pace Analytical Services, LLC located in Indianapolis, Indiana.

All results in micrograms per liter (µg/L).

cVOCs: Chlorinated Volatile Organic Compounds

MTBE: Methyl-tert-butyl ether

NE: Not Established

VOCs analyzed using USEPA SW-846 Method 8260

Shaded concentrations exceed Risk-based Closure Guide (R2) Groundwater Published Levels (GWPLs).

\*The groundwater samples collected for monitoring wells MW-9 and MW-10 were switched in the field on 10/20/2023. Therefore, this table reflects the correct results for MW-9 and MW-10.



### APPENDIX B

## Field Data



#### IWM Consulting Group, LLC 7428 Rockville Road Indianapolis, Indiana 46214

**Groundwater Monitoring Report** 

Facility:	Columbus Mobil	Date: 5/16/24			
Address:	2220 East Columbus Drive City:	East Chicago	State: Indiana		
Sampling	Technician: O. E. White	Project Manager:	Mandy Hall		
Ioh Numb	er IN17024 04		Page: 1 of 1		

Well ID	TOC Elevation (feet)	Depth to Product (feet)	Depth to Water (feet)	Total Well Depth (feet)	Casing Diameter (O.D.")	Well Volume (Galions)	Purge Volume (Gallons)	Sample Time
MW-IR	99.55	Discontinued		14	3"	Discontinued		
MW-2	100.13		6.63	10.02	2"	.54	1.64	/0:26
MW-3	-	Discontinued  Discontinued		9.93	37		Discontinue	1
мж-4				10	2*	Discontinued		
MW-5	<del></del>	Discontinued		10	2"	Discontinued		
MW-S5R	99.92		6.47	10	2"	157	1.72	10:25
MW-7R	99.28		5.86	14	2"	1.32	3.98	11:20
MW-8	99.46		6.17	16	2"	1.60	4.80	11:03
MW-9	98.91	·	5.67	13.80	2"	1.32	3.97	11:25
MW-10	99.45		6.19	13.80	2"	1,24	3.12	12:00
MW-11	99.67	(,.26	6.38	13.48	2"	1.15	3.46	12:10
MW-12	99.44	6.09	6.11	13.78	2"	1,25	3.75	11:40
MW-13	99.60		6.09	13.74	2*	1.24	3.74	11:00
MW-14	99.06		5.89	13.78	2"	128	3.85	11:45

PLEASE NOTE: PURGED WATER FROM MW-10 AND MW-14 CANNOT BE PLACED IN THE DRUM. PURGED WATER FROM THESE TWO WELLS NEEDS TO BE SOLITIFIED AND PLACED IN THE DUMPSTER.

## **APPENDIX C**

## **Groundwater Analytical Report**







May 23, 2024

Mandy Hall IWM Consulting 7428 Rockville Road Indianapolis, IN 46214

RE: Project: Columbus Mobil

Pace Project No.: 50373452

## Dear Mandy Hall:

Enclosed are the analytical results for sample(s) received by the laboratory on May 16, 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,

Heather Patterson

Heath Pathson

heather.patterson@pacelabs.com

(317)228-3146 Project Manager

Enclosures

cc: Mr. Brad Gentry, IWM Consulting







#### **CERTIFICATIONS**

Project: Columbus Mobil
Pace Project No.: 50373452

#### 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



# **SAMPLE SUMMARY**

Project: Columbus Mobil Pace Project No.: 50373452

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50373452001	MW-2	Water	05/16/24 10:20	05/16/24 14:47
50373452002	MW-55R	Water	05/16/24 10:25	05/16/24 14:47
50373452003	MW-7R	Water	05/16/24 11:20	05/16/24 14:47
50373452004	MW-8	Water	05/16/24 11:03	05/16/24 14:47
50373452005	MW-9	Water	05/16/24 11:25	05/16/24 14:47
50373452006	MW-10	Water	05/16/24 12:00	05/16/24 14:47
50373452007	MW-11	Water	05/16/24 12:10	05/16/24 14:47
50373452008	MW-12	Water	05/16/24 11:40	05/16/24 14:47
50373452009	MW-13	Water	05/16/24 11:08	05/16/24 14:47
50373452010	MW-14	Water	05/16/24 11:45	05/16/24 14:47
50373452011	DUP	Water	05/16/24 08:00	05/16/24 14:47
50373452012	TRIP BLANK	Water	05/16/24 10:15	05/16/24 14:47



# **SAMPLE ANALYTE COUNT**

Project: Columbus Mobil Pace Project No.: 50373452

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50373452001	MW-2	EPA 5030/8260	BES	75	PASI-I
50373452002	MW-55R	EPA 5030/8260	BES	75	PASI-I
50373452003	MW-7R	EPA 5030/8260	BES	75	PASI-I
50373452004	MW-8	EPA 5030/8260	BES	75	PASI-I
50373452005	MW-9	EPA 5030/8260	BES	75	PASI-I
50373452006	MW-10	EPA 5030/8260	BES	75	PASI-I
50373452007	MW-11	EPA 5030/8260	BES	75	PASI-I
50373452008	MW-12	EPA 5030/8260	BES	75	PASI-I
50373452009	MW-13	EPA 5030/8260	BES	75	PASI-I
50373452010	MW-14	EPA 5030/8260	BES	75	PASI-I
50373452011	DUP	EPA 5030/8260	BES	75	PASI-I
50373452012	TRIP BLANK	EPA 5030/8260	BES	75	PASI-I

PASI-I = Pace Analytical Services - Indianapolis



# **SUMMARY OF DETECTION**

Project: Columbus Mobil
Pace Project No.: 50373452

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373452001	MW-2					
EPA 5030/8260	Benzene	12.9	ug/L	5.0	05/21/24 21:33	
EPA 5030/8260	n-Butylbenzene	18.3	ug/L	5.0	05/21/24 21:33	M1,R1
EPA 5030/8260	sec-Butylbenzene	8.8	ug/L	5.0	05/21/24 21:33	M1,R1
EPA 5030/8260	Ethylbenzene	8.3	ug/L	5.0	05/21/24 21:33	R1
EPA 5030/8260	n-Hexane	15.6	ug/L	5.0	05/21/24 21:33	
EPA 5030/8260	Isopropylbenzene (Cumene)	39.7	ug/L	5.0	05/21/24 21:33	M1,R1
EPA 5030/8260	1-Methylnaphthalene	47.3	ug/L	10.0	05/21/24 21:33	R1
EPA 5030/8260	Naphthalene	25.2	ug/L	1.2	05/21/24 21:33	R1
EPA 5030/8260	n-Propylbenzene	92.8	ug/L	5.0	05/21/24 21:33	M1,R1
60373452002	MW-55R					
EPA 5030/8260	Benzene	21.5	ug/L	5.0	05/21/24 21:56	
EPA 5030/8260	n-Butylbenzene	6.4	ug/L	5.0	05/21/24 21:56	
EPA 5030/8260	Ethylbenzene	11.5	ug/L	5.0	05/21/24 21:56	
EPA 5030/8260	n-Hexane	14.1	ug/L	5.0	05/21/24 21:56	
EPA 5030/8260	Isopropylbenzene (Cumene)	36.6	ug/L	5.0	05/21/24 21:56	
EPA 5030/8260	1-Methylnaphthalene	40.9	ug/L	10.0	05/21/24 21:56	
EPA 5030/8260	Naphthalene	54.9	ug/L	1.2	05/21/24 21:56	
EPA 5030/8260	n-Propylbenzene	86.0	ug/L	5.0	05/21/24 21:56	
EPA 5030/8260	Toluene	15.1	ug/L	5.0	05/21/24 21:56	
EPA 5030/8260	Xylene (Total)	15.2	ug/L	10.0	05/21/24 21:56	
50373452004	MW-8					
EPA 5030/8260	Benzene	4700	ug/L	100	05/21/24 23:06	
EPA 5030/8260	Isopropylbenzene (Cumene)	21.9	ug/L	5.0	05/21/24 22:43	
EPA 5030/8260	1-Methylnaphthalene	15.7	ug/L	10.0	05/21/24 22:43	
EPA 5030/8260	n-Propylbenzene	65.0	ug/L	5.0	05/21/24 22:43	
EPA 5030/8260	Toluene	10.0	ug/L	5.0	05/21/24 22:43	
0373452005	MW-9					
EPA 5030/8260	Benzene	15.0	ug/L	5.0	05/21/24 23:29	
0373452006	MW-10					
EPA 5030/8260	cis-1,2-Dichloroethene	46.0	ug/L	5.0	05/21/24 23:53	
EPA 5030/8260	Tetrachloroethene	1690	ug/L	100	05/22/24 00:16	
EPA 5030/8260	Trichloroethene	78.0	ug/L	5.0	05/21/24 23:53	
0373452007	MW-11					
EPA 5030/8260	Benzene	10200	ug/L	500		
EPA 5030/8260	n-Butylbenzene	96.5	ug/L	50.0	05/22/24 00:39	
EPA 5030/8260	Ethylbenzene	3470	ug/L	500	05/22/24 01:03	
EPA 5030/8260	n-Hexane	704	ug/L	50.0	05/22/24 00:39	
EPA 5030/8260	Isopropylbenzene (Cumene)	160	ug/L	50.0	05/22/24 00:39	
EPA 5030/8260	1-Methylnaphthalene	120	ug/L	100	05/22/24 00:39	
EPA 5030/8260	2-Methylnaphthalene	182	ug/L	100	05/22/24 00:39	
EPA 5030/8260	Naphthalene	483	ug/L	12.0	05/22/24 00:39	
EPA 5030/8260	n-Propylbenzene	437	ug/L	50.0	05/22/24 00:39	
EPA 5030/8260	Toluene	9490	ug/L	500	05/22/24 01:03	
EPA 5030/8260	1,2,4-Trimethylbenzene	2860	ug/L	50.0	05/22/24 00:39	

## **REPORT OF LABORATORY ANALYSIS**

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# **SUMMARY OF DETECTION**

Project: Columbus Mobil Pace Project No.: 50373452

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50373452007	MW-11					
EPA 5030/8260	1,3,5-Trimethylbenzene	687	ug/L	50.0	05/22/24 00:39	
EPA 5030/8260	Xylene (Total)	18600	ug/L	1000	05/22/24 01:03	
50373452008	MW-12					
EPA 5030/8260	Benzene	6950	ug/L	250	05/22/24 01:49	
EPA 5030/8260	Ethylbenzene	2270	ug/L	250	05/22/24 01:49	
EPA 5030/8260	n-Hexane	259	ug/L	25.0	05/22/24 01:26	
EPA 5030/8260	Isopropylbenzene (Cumene)	97.5	ug/L	25.0	05/22/24 01:26	
EPA 5030/8260	1-Methylnaphthalene	117	ug/L	50.0	05/22/24 01:26	
EPA 5030/8260	2-Methylnaphthalene	192	ug/L	50.0	05/22/24 01:26	
EPA 5030/8260	Naphthalene	411	ug/L	6.0	05/22/24 01:26	
EPA 5030/8260	n-Propylbenzene	280	ug/L	25.0	05/22/24 01:26	
EPA 5030/8260	Toluene	5460	ug/L	250	05/22/24 01:49	
EPA 5030/8260	1,2,4-Trimethylbenzene	2670	ug/L	250	05/22/24 01:49	
EPA 5030/8260	1,3,5-Trimethylbenzene	482	ug/L	25.0	05/22/24 01:26	
EPA 5030/8260	Xylene (Total)	12000	ug/L	500	05/22/24 01:49	
50373452009	MW-13					
EPA 5030/8260	Benzene	8.6	ug/L	5.0	05/22/24 02:12	
EPA 5030/8260	Isopropylbenzene (Cumene)	7.6	ug/L	5.0	05/22/24 02:12	
EPA 5030/8260	1-Methylnaphthalene	10.4	ug/L	10.0	05/22/24 02:12	
EPA 5030/8260	Naphthalene	6.5	ug/L	1.2	05/22/24 02:12	
EPA 5030/8260	n-Propylbenzene	18.6	ug/L	5.0	05/22/24 02:12	
EPA 5030/8260	Xylene (Total)	10.8	ug/L	10.0	05/22/24 02:12	
0373452010	MW-14					
EPA 5030/8260	Benzene	108	ug/L	5.0	05/22/24 02:36	
50373452011	DUP					
EPA 5030/8260	Benzene	4920	ug/L	500	05/22/24 03:22	
EPA 5030/8260	Ethylbenzene	1760	ug/L	50.0	05/22/24 02:59	
EPA 5030/8260	n-Hexane	262	ug/L	50.0	05/22/24 02:59	
EPA 5030/8260	Isopropylbenzene (Cumene)	114	ug/L	50.0	05/22/24 02:59	
EPA 5030/8260	1-Methylnaphthalene	217	ug/L	100	05/22/24 02:59	
EPA 5030/8260	2-Methylnaphthalene	343	ug/L	100	05/22/24 02:59	
EPA 5030/8260	Naphthalene	515	ug/L	12.0	05/22/24 02:59	
EPA 5030/8260	n-Propylbenzene	331	ug/L	50.0	05/22/24 02:59	
EPA 5030/8260	Toluene	3900	ug/L	500	05/22/24 03:22	
EPA 5030/8260	1,2,4-Trimethylbenzene	2390	ug/L	50.0	05/22/24 02:59	
EPA 5030/8260	1,3,5-Trimethylbenzene	576	ug/L	50.0	05/22/24 02:59	
EPA 5030/8260	Xylene (Total)	9550	ug/L	1000	05/22/24 03:22	



Project: Columbus Mobil
Page Project No.: 50273453

Date: 05/23/2024 03:52 PM

Sample: MW-2	Lab ID: 503	73452001	Collected: 05/16/2	24 10:20	Received:	05/16/24 14:47	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260 MSV Indiana	Analytical Meth	hod: EPA 50	030/8260					
	Pace Analytica	al Services -	Indianapolis					
Acetone	ND	ug/L	100	1		05/21/24 21:3	3 67-64-1	
Acrolein	ND	ug/L	50.0	1		05/21/24 21:3	3 107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/21/24 21:3	3 107-13-1	R1
Benzene	12.9	ug/L	5.0	1		05/21/24 21:3	3 71-43-2	
Bromobenzene	ND	ug/L	5.0	1		05/21/24 21:3	3 108-86-1	R1
Bromochloromethane	ND	ug/L	5.0	1		05/21/24 21:3	3 74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1		05/21/24 21:3		
Bromoform	ND	ug/L	5.0	1		05/21/24 21:3		
3romomethane	ND	ug/L	5.0	1		05/21/24 21:3		R1
2-Butanone (MEK)	ND	ug/L	25.0	1		05/21/24 21:3		
n-Butylbenzene	18.3	ug/L	5.0	1		05/21/24 21:3		M1,R1
sec-Butylbenzene	8.8	ug/L	5.0	1		05/21/24 21:3		M1,R1
ert-Butylbenzene	ND	ug/L	5.0	1		05/21/24 21:3		R1
Carbon disulfide	ND ND	•	10.0	1		05/21/24 21:3		Νī
		ug/L						
Carbon tetrachloride	ND	ug/L	5.0	1		05/21/24 21:3		D4
Chlorobenzene	ND	ug/L	5.0	1		05/21/24 21:3		R1
Chloroethane	ND	ug/L	5.0	1		05/21/24 21:3		
Chloroform	ND	ug/L	5.0	1		05/21/24 21:3		
Chloromethane	ND	ug/L	5.0	1		05/21/24 21:3		_
2-Chlorotoluene	ND	ug/L	5.0	1		05/21/24 21:3		R1
1-Chlorotoluene	ND	ug/L	5.0	1		05/21/24 21:3		R1
Dibromochloromethane	ND	ug/L	5.0	1		05/21/24 21:3		
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		05/21/24 21:3		
Dibromomethane	ND	ug/L	5.0	1		05/21/24 21:3	3 74-95-3	
,2-Dichlorobenzene	ND	ug/L	5.0	1		05/21/24 21:3	3 95-50-1	R1
,3-Dichlorobenzene	ND	ug/L	5.0	1		05/21/24 21:3	3 541-73-1	R1
,4-Dichlorobenzene	ND	ug/L	5.0	1		05/21/24 21:3	3 106-46-7	R1
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/21/24 21:3	3 110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1		05/21/24 21:3	3 75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	1		05/21/24 21:3	3 75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		05/21/24 21:3	3 107-06-2	
,1-Dichloroethene	ND	ug/L	5.0	1		05/21/24 21:3	3 75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		05/21/24 21:3	3 156-59-2	
rans-1,2-Dichloroethene	ND	ug/L	5.0	1		05/21/24 21:3	3 156-60-5	
,2-Dichloropropane	ND	ug/L	5.0	1		05/21/24 21:3		
,3-Dichloropropane	ND	ug/L	5.0	1		05/21/24 21:3		
2,2-Dichloropropane	ND	ug/L	5.0	1		05/21/24 21:3		
,1-Dichloropropene	ND	ug/L	5.0	1		05/21/24 21:3		
sis-1,3-Dichloropropene	ND	ug/L	5.0	1			3 10061-01-5	
rans-1,3-Dichloropropene	ND ND	ug/L ug/L	5.0	1			3 10061-01-3	
Ethylbenzene	8.3	_	5.0	1		05/21/24 21:3		R1
		ug/L						ΚI
Ethyl methacrylate	ND	ug/L	100	1		05/21/24 21:3		D4
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1		05/21/24 21:3		R1
n-Hexane	15.6	ug/L	5.0	1		05/21/24 21:3		
2-Hexanone	ND	ug/L	25.0	1		05/21/24 21:3		
odomethane	ND	ug/L	10.0	1		05/21/24 21:3	3 74-88-4	



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-2	Lab ID: 50	373452001	Collected: 05/16/2	24 10:20	Received: 05/16/24 14	:47 Matrix:	Water
Parameters	Results	Units	Report Limit	DF	Prepared Analy	yzed CA	S No. Qu
8260 MSV Indiana	Analytical Me	thod: EPA 50	030/8260				
	Pace Analytic	al Services -	Indianapolis				
Isopropylbenzene (Cumene)	39.7	ug/L	5.0	1	05/21/24	1 21:33 98-82	2-8 M1,R
p-lsopropyltoluene	ND	ug/L	5.0	1	05/21/24	1 21:33 99-87	7-6 M1,R
Methylene Chloride	ND	ug/L	5.0	1	05/21/24	1 21:33 75-09	9-2
1-Methylnaphthalene	47.3	ug/L	10.0	1	05/21/24	1 21:33 90-12	2-0 R1
2-Methylnaphthalene	ND	ug/L	10.0	1	05/21/24	1 21:33 91-57	7-6 R1
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1	05/21/24	1 21:33 108-1	10-1
Methyl-tert-butyl ether	ND	ug/L	4.0	1	05/21/24	1 21:33 1634	-04-4
Naphthalene	25.2	ug/L	1.2	1	05/21/24	1 21:33 91-20	)-3 R1
n-Propylbenzene	92.8	ug/L	5.0	1	05/21/24	1 21:33 103-6	65-1 M1,R
Styrene	ND	ug/L	5.0	1	05/21/24	1 21:33 100-4	12-5 R1
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1	05/21/24	1 21:33 630-2	20-6
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	05/21/24	1 21:33 79-34	1-5
Tetrachloroethene	ND	ug/L	5.0	1	05/21/24	1 21:33 127-1	18-4 R1
Toluene	ND	ug/L	5.0	1	05/21/24	1 21:33 108-8	38-3
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1	05/21/24	1 21:33 87-61	I-6 R1
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1	05/21/24	1 21:33 120-8	32-1 R1
1,1,1-Trichloroethane	ND	ug/L	5.0	1	05/21/24	1 21:33 71-55	5-6
1,1,2-Trichloroethane	ND	ug/L	5.0	1	05/21/24	1 21:33 79-00	)-5
Trichloroethene	ND	ug/L	5.0	1	05/21/24	1 21:33 79-01	1-6
Trichlorofluoromethane	ND	ug/L	5.0	1	05/21/24	1 21:33 75-69	9-4
1,2,3-Trichloropropane	ND	ug/L	5.0	1	05/21/24	1 21:33 96-18	3-4
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1	05/21/24	1 21:33 95-63	3-6 R1
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1	05/21/24	1 21:33 108-6	67-8 R1
Vinyl acetate	ND	ug/L	50.0	1	05/21/24	1 21:33 108-0	05-4
Vinyl chloride	ND	ug/L	2.0	1	05/21/24	1 21:33 75-01	1-4
Xylene (Total)	ND	ug/L	10.0	1		1 21:33 1330	
Surrogates		J					
Dibromofluoromethane (S)	100	%.	82-128	1	05/21/24	1 21:33 1868	-53-7
4-Bromofluorobenzene (S)	108	%.	79-124	1	05/21/24	1 21:33 460-0	00-4
Toluene-d8 (S)	98	%.	73-122	1	05/21/24	1 21:33 2037	-26-5



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-55R	Lab ID: 503	73452002	Collected: 05/16/2	24 10:25	Received:	05/16/24 14:47	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260 MSV Indiana	Analytical Metl	nod: EPA 50	030/8260					
	Pace Analytica	al Services -	Indianapolis					
Acetone	ND	ug/L	100	1		05/21/24 21:5	6 67-64-1	
Acrolein	ND	ug/L	50.0	1		05/21/24 21:5	6 107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/21/24 21:5	6 107-13-1	
Benzene	21.5	ug/L	5.0	1		05/21/24 21:5		
Bromobenzene	ND	ug/L	5.0	1		05/21/24 21:5		
Bromochloromethane	ND	ug/L	5.0	1		05/21/24 21:5		
Bromodichloromethane	ND	ug/L	5.0	1		05/21/24 21:5		
Bromoform	ND	ug/L	5.0	1		05/21/24 21:5		
Bromomethane	ND	ug/L	5.0	1		05/21/24 21:5		
-Butanone (MEK)	ND	ug/L	25.0	1		05/21/24 21:5		
-Butylbenzene	6.4	ug/L	5.0	1		05/21/24 21:5		
ec-Butylbenzene	ND	ug/L	5.0	1		05/21/24 21:5		
ert-Butylbenzene	ND	ug/L	5.0	1		05/21/24 21:5		
Carbon disulfide	ND	ug/L	10.0	1		05/21/24 21:5		
Carbon tetrachloride	ND ND	•	5.0	1		05/21/24 21:5		
Chlorobenzene	ND ND	ug/L	5.0	1		05/21/24 21:5		
Chloropenzene	ND ND	ug/L	5.0	1				
		ug/L				05/21/24 21:5 05/21/24 21:5		
Chloroform	ND	ug/L	5.0	1				
Chlaratakasa	ND	ug/L	5.0	1		05/21/24 21:5		
-Chlorotoluene	ND	ug/L	5.0	1		05/21/24 21:5		
-Chlorotoluene	ND	ug/L	5.0	1		05/21/24 21:5		
Dibromochloromethane	ND	ug/L	5.0	1		05/21/24 21:5		
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		05/21/24 21:5		
Dibromomethane	ND	ug/L	5.0	1		05/21/24 21:5		
,2-Dichlorobenzene	ND	ug/L	5.0	1		05/21/24 21:5		
,3-Dichlorobenzene	ND	ug/L	5.0	1		05/21/24 21:5		
,4-Dichlorobenzene	ND	ug/L	5.0	1		05/21/24 21:5		
ans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/21/24 21:5		
Dichlorodifluoromethane	ND	ug/L	5.0	1		05/21/24 21:5	6 75-71-8	
,1-Dichloroethane	ND	ug/L	5.0	1		05/21/24 21:5	6 75-34-3	
,2-Dichloroethane	ND	ug/L	5.0	1		05/21/24 21:5		
,1-Dichloroethene	ND	ug/L	5.0	1		05/21/24 21:5		
is-1,2-Dichloroethene	ND	ug/L	5.0	1		05/21/24 21:5	6 156-59-2	
ans-1,2-Dichloroethene	ND	ug/L	5.0	1		05/21/24 21:5	6 156-60-5	
,2-Dichloropropane	ND	ug/L	5.0	1		05/21/24 21:5	6 78-87-5	
,3-Dichloropropane	ND	ug/L	5.0	1		05/21/24 21:5	6 142-28-9	
,2-Dichloropropane	ND	ug/L	5.0	1		05/21/24 21:5	6 594-20-7	
,1-Dichloropropene	ND	ug/L	5.0	1		05/21/24 21:5	6 563-58-6	
is-1,3-Dichloropropene	ND	ug/L	5.0	1		05/21/24 21:5	6 10061-01-5	
ans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/21/24 21:5	6 10061-02-6	
thylbenzene	11.5	ug/L	5.0	1		05/21/24 21:5	6 100-41-4	
thyl methacrylate	ND	ug/L	100	1		05/21/24 21:5	6 97-63-2	
lexachloro-1,3-butadiene	ND	ug/L	5.0	1		05/21/24 21:5		
-Hexane	14.1	ug/L	5.0	1		05/21/24 21:5		
-Hexanone	ND	ug/L	25.0	1		05/21/24 21:5		
odomethane	ND	ug/L	10.0	1		05/21/24 21:5		



Project: Columbus Mobil Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-55R	Lab ID: 503	73452002	Collected: 05/16/2	4 10:25	Received: 0	5/16/24 14:47 <b>I</b>	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Indiana	Analytical Meth	nod: EPA 50	030/8260					
	Pace Analytica	l Services -	Indianapolis					
Isopropylbenzene (Cumene)	36.6	ug/L	5.0	1		05/21/24 21:56	98-82-8	
p-Isopropyltoluene	ND	ug/L	5.0	1		05/21/24 21:56	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/21/24 21:56	75-09-2	
1-Methylnaphthalene	40.9	ug/L	10.0	1		05/21/24 21:56	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1		05/21/24 21:56	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		05/21/24 21:56	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1		05/21/24 21:56	1634-04-4	
Naphthalene	54.9	ug/L	1.2	1		05/21/24 21:56	91-20-3	
n-Propylbenzene	86.0	ug/L	5.0	1		05/21/24 21:56	103-65-1	
Styrene	ND	ug/L	5.0	1		05/21/24 21:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		05/21/24 21:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		05/21/24 21:56	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		05/21/24 21:56	127-18-4	
Toluene	15.1	ug/L	5.0	1		05/21/24 21:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1		05/21/24 21:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1		05/21/24 21:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		05/21/24 21:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		05/21/24 21:56	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		05/21/24 21:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		05/21/24 21:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1		05/21/24 21:56	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		05/21/24 21:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		05/21/24 21:56	108-67-8	
Vinyl acetate	ND	ug/L	50.0	1		05/21/24 21:56	108-05-4	
Vinyl chloride	ND	ug/L	2.0	1		05/21/24 21:56	75-01-4	
Xylene (Total)	15.2	ug/L	10.0	1		05/21/24 21:56	1330-20-7	
Surrogates		ŭ						
Dibromofluoromethane (S)	95	%.	82-128	1		05/21/24 21:56	1868-53-7	
4-Bromofluorobenzene (S)	102	%.	79-124	1		05/21/24 21:56	460-00-4	
Toluene-d8 (S)	97	%.	73-122	1		05/21/24 21:56	2037-26-5	



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-7R	Lab ID: 503	73452003	Collected: 05/16/2	24 11:20	Received:	05/16/24 14:47	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260 MSV Indiana	Analytical Metl	nod: EPA 50	030/8260					
	Pace Analytica	I Services -	Indianapolis					
Acetone	ND	ug/L	100	1		05/21/24 22:1	9 67-64-1	
Acrolein	ND	ug/L	50.0	1		05/21/24 22:1	9 107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/21/24 22:1	9 107-13-1	
Benzene	ND	ug/L	5.0	1		05/21/24 22:1	9 71-43-2	
Bromobenzene	ND	ug/L	5.0	1		05/21/24 22:1	9 108-86-1	
Bromochloromethane	ND	ug/L	5.0	1		05/21/24 22:1	9 74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1		05/21/24 22:1	9 75-27-4	
Bromoform	ND	ug/L	5.0	1		05/21/24 22:1	9 75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/21/24 22:1		
2-Butanone (MEK)	ND	ug/L	25.0	1		05/21/24 22:1		
n-Butylbenzene	ND	ug/L	5.0	1		05/21/24 22:1		
sec-Butylbenzene	ND	ug/L	5.0	1		05/21/24 22:1		
ert-Butylbenzene	ND	ug/L	5.0	1		05/21/24 22:1		
Carbon disulfide	ND	ug/L	10.0	1		05/21/24 22:1		
Carbon tetrachloride	ND	ug/L	5.0	1		05/21/24 22:1		
Chlorobenzene	ND	ug/L	5.0	1		05/21/24 22:1		
Chloroethane	ND	ug/L	5.0	1		05/21/24 22:1		
Chloroform	ND	ug/L	5.0	1		05/21/24 22:1		
Chloromethane	ND ND	ug/L ug/L	5.0	1		05/21/24 22:1		
2-Chlorotoluene	ND ND	_	5.0	1		05/21/24 22:1		
I-Chlorotoluene	ND ND	ug/L	5.0	1		05/21/24 22:1		
Dibromochloromethane	ND ND	ug/L	5.0	1		05/21/24 22:1		
		ug/L						
I,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		05/21/24 22:1		
Dibromomethane	ND	ug/L	5.0	1		05/21/24 22:1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		05/21/24 22:1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		05/21/24 22:1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		05/21/24 22:1		
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/21/24 22:1		
Dichlorodifluoromethane	ND	ug/L	5.0	1		05/21/24 22:1		
1,1-Dichloroethane	ND	ug/L	5.0	1		05/21/24 22:1		
1,2-Dichloroethane	ND	ug/L	5.0	1		05/21/24 22:1		
1,1-Dichloroethene	ND	ug/L	5.0	1		05/21/24 22:1		
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		05/21/24 22:1		
rans-1,2-Dichloroethene	ND	ug/L	5.0	1		05/21/24 22:1		
,2-Dichloropropane	ND	ug/L	5.0	1		05/21/24 22:1		
,3-Dichloropropane	ND	ug/L	5.0	1		05/21/24 22:1		
2,2-Dichloropropane	ND	ug/L	5.0	1		05/21/24 22:1		
1,1-Dichloropropene	ND	ug/L	5.0	1		05/21/24 22:1		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			9 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/21/24 22:1	9 10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		05/21/24 22:1		
Ethyl methacrylate	ND	ug/L	100	1		05/21/24 22:1	9 97-63-2	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1		05/21/24 22:1	9 87-68-3	
n-Hexane	ND	ug/L	5.0	1		05/21/24 22:1	9 110-54-3	
2-Hexanone	ND	ug/L	25.0	1		05/21/24 22:1	9 591-78-6	
odomethane	ND	ug/L	10.0	1		05/21/24 22:1	9 74-88-4	



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-7R	Lab ID: 5037	73452003	Collected: 05/16/2	24 11:20	Received: 05/16/24 14:47 Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed CAS No.	Qual
8260 MSV Indiana	Analytical Meth	od: EPA 50	030/8260			
	Pace Analytical	Services -	Indianapolis			
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1	05/21/24 22:19 98-82-8	
p-Isopropyltoluene	ND	ug/L	5.0	1	05/21/24 22:19 99-87-6	
Methylene Chloride	ND	ug/L	5.0	1	05/21/24 22:19 75-09-2	
1-Methylnaphthalene	ND	ug/L	10.0	1	05/21/24 22:19 90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1	05/21/24 22:19 91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1	05/21/24 22:19 108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1	05/21/24 22:19 1634-04-4	
Naphthalene	ND	ug/L	1.2	1	05/23/24 15:26 91-20-3	
n-Propylbenzene	ND	ug/L	5.0	1	05/21/24 22:19 103-65-1	
Styrene	ND	ug/L	5.0	1	05/21/24 22:19 100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1	05/21/24 22:19 630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	05/21/24 22:19 79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1	05/21/24 22:19 127-18-4	
Toluene	ND	ug/L	5.0	1	05/21/24 22:19 108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1	05/21/24 22:19 87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1	05/21/24 22:19 120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	05/21/24 22:19 71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	05/21/24 22:19 79-00-5	
Trichloroethene	ND	ug/L	5.0	1	05/21/24 22:19 79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1	05/21/24 22:19 75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1	05/21/24 22:19 96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1	05/21/24 22:19 95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1	05/21/24 22:19 108-67-8	
Vinyl acetate	ND	ug/L	50.0	1	05/21/24 22:19 108-05-4	
Vinyl chloride	ND	ug/L	2.0	1	05/21/24 22:19 75-01-4	
Xylene (Total)	ND	ug/L	10.0	1	05/21/24 22:19 1330-20-7	
Surrogates		ŭ				
Dibromofluoromethane (S)	95	%.	82-128	1	05/21/24 22:19 1868-53-7	
4-Bromofluorobenzene (S)	102	%.	79-124	1	05/21/24 22:19 460-00-4	
Toluene-d8 (S)	97	%.	73-122	1	05/21/24 22:19 2037-26-5	



Project: Columbus Mobil
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Parameters  8260 MSV Indiana  Acetone Acrolein Acrylonitrile Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disulfide Carbon tetrachloride Chlorobenzene	Results  Analytical Methodology Pace Analytica  ND		Indianapolis  100 50.0 100 100 5.0 5.0	DF 1 1 1 20 1	Prepared Analyzed CAS No. Qua 05/21/24 22:43 67-64-1 05/21/24 22:43 107-02-8 05/21/24 22:43 107-13-1 05/21/24 23:06 71-43-2
Acetone Acrolein Acrylonitrile Benzene Bromobenzene Bromochloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disulfide Carbon tetrachloride	Pace Analytica  ND  ND  ND  4700  ND  ND  ND  ND  ND  ND  ND  ND  ND	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	Indianapolis  100 50.0 100 100 5.0 5.0	1 1 20	05/21/24 22:43 107-02-8 05/21/24 22:43 107-13-1
Acrolein Acrylonitrile Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene carbon disulfide Carbon tetrachloride	ND ND ND 4700 ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L	100 50.0 100 100 5.0 5.0	1 1 20	05/21/24 22:43 107-02-8 05/21/24 22:43 107-13-1
Acrolein Acrylonitrile Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene carbon disulfide Carbon tetrachloride	ND ND 4700 ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L	50.0 100 100 5.0 5.0	1 1 20	05/21/24 22:43 107-02-8 05/21/24 22:43 107-13-1
Acrylonitrile Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disulfide Carbon tetrachloride	ND 4700 ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L	100 100 5.0 5.0	1 20	05/21/24 22:43 107-13-1
Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disulfide Carbon tetrachloride	4700 ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L	100 5.0 5.0	20	
Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disulfide Carbon tetrachloride	ND ND ND ND ND	ug/L ug/L ug/L ug/L	5.0 5.0		05/21/24 23:06 71-43-2
Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene ert-Butylbenzene Carbon disulfide Carbon tetrachloride	ND ND ND ND ND	ug/L ug/L ug/L	5.0	1	55, E 1, E 1 E 5.00 I 1 TO E
Bromodichloromethane Bromoform Bromomethane P-Butanone (MEK) n-Butylbenzene sec-Butylbenzene ert-Butylbenzene Carbon disulfide Carbon tetrachloride	ND ND ND ND ND	ug/L ug/L			05/21/24 22:43 108-86-1
Bromodichloromethane Bromoform Bromomethane P-Butanone (MEK) H-Butylbenzene Hec-Butylbenzene Hert-Butylbenzene Carbon disulfide Carbon tetrachloride	ND ND ND ND	ug/L		1	05/21/24 22:43 74-97-5
Bromomethane P-Butanone (MEK) I-Butylbenzene Iec-Butylbenzene Iert-Butylbenzene Carbon disulfide Carbon tetrachloride	ND ND ND	-	5.0	1	05/21/24 22:43 75-27-4
Bromomethane I-Butanone (MEK) I-Butylbenzene ec-Butylbenzene ert-Butylbenzene Carbon disulfide Carbon tetrachloride	ND ND	~	5.0	1	05/21/24 22:43 75-25-2
-Butanone (MEK) -Butylbenzene ec-Butylbenzene ert-Butylbenzene Carbon disulfide Carbon tetrachloride	ND	ug/L	5.0	1	05/21/24 22:43 74-83-9
n-Butylbenzene dec-Butylbenzene ert-Butylbenzene Carbon disulfide Carbon tetrachloride		ug/L	25.0	1	05/21/24 22:43 78-93-3
ec-Butylbenzene ert-Butylbenzene Carbon disulfide Carbon tetrachloride	ND	ug/L	5.0	1	05/21/24 22:43 104-51-8
ert-Butylbenzene Carbon disulfide Carbon tetrachloride	ND ND	ug/L	5.0	1	05/21/24 22:43 135-98-8
Carbon disulfide Carbon tetrachloride	ND ND	-	5.0	1	05/21/24 22:43 98-06-6
Carbon tetrachloride		ug/L			
	ND	ug/L	10.0	1	05/21/24 22:43 75-15-0
hlorobenzene	ND	ug/L	5.0	1	05/21/24 22:43 56-23-5
N. I. d.	ND	ug/L	5.0	1	05/21/24 22:43 108-90-7
Chloroethane	ND	ug/L	5.0	1	05/21/24 22:43 75-00-3
Chloroform	ND	ug/L	5.0	1	05/21/24 22:43 67-66-3
Chloromethane	ND	ug/L	5.0	1	05/21/24 22:43 74-87-3
-Chlorotoluene	ND	ug/L	5.0	1	05/21/24 22:43 95-49-8
-Chlorotoluene	ND	ug/L	5.0	1	05/21/24 22:43 106-43-4
Dibromochloromethane	ND	ug/L	5.0	1	05/21/24 22:43 124-48-1
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1	05/21/24 22:43 106-93-4
Dibromomethane	ND	ug/L	5.0	1	05/21/24 22:43 74-95-3
,2-Dichlorobenzene	ND	ug/L	5.0	1	05/21/24 22:43 95-50-1
,3-Dichlorobenzene	ND	ug/L	5.0	1	05/21/24 22:43 541-73-1
,4-Dichlorobenzene	ND	ug/L	5.0	1	05/21/24 22:43 106-46-7
ans-1,4-Dichloro-2-butene	ND	ug/L	100	1	05/21/24 22:43 110-57-6
Dichlorodifluoromethane	ND	ug/L	5.0	1	05/21/24 22:43 75-71-8
,1-Dichloroethane	ND	ug/L	5.0	1	05/21/24 22:43 75-34-3
,2-Dichloroethane	ND	ug/L	5.0	1	05/21/24 22:43 107-06-2
,1-Dichloroethene	ND	ug/L	5.0	1	05/21/24 22:43 75-35-4
is-1,2-Dichloroethene	ND	ug/L	5.0	1	05/21/24 22:43 156-59-2
rans-1,2-Dichloroethene	ND	ug/L	5.0	1	05/21/24 22:43 156-60-5
,2-Dichloropropane	ND	ug/L	5.0	1	05/21/24 22:43 78-87-5
,3-Dichloropropane	ND	ug/L	5.0	1	05/21/24 22:43 142-28-9
z,2-Dichloropropane	ND	ug/L	5.0	1	05/21/24 22:43 594-20-7
,1-Dichloropropene	ND	ug/L	5.0	1	05/21/24 22:43 563-58-6
is-1,3-Dichloropropene	ND ND		5.0	1	05/21/24 22:43 10061-01-5
rans-1,3-Dichloropropene	ND ND	ug/L	5.0	1	05/21/24 22:43 10061-01-5
		ug/L			
Ethylbenzene	ND	ug/L	5.0	1	05/21/24 22:43 100-41-4
Ethyl methacrylate	ND	ug/L	100	1	05/21/24 22:43 97-63-2
lexachloro-1,3-butadiene	ND	ug/L	5.0	1	05/21/24 22:43 87-68-3
-Hexane	ND	ug/L	5.0	1	05/21/24 22:43 110-54-3
?-Hexanone odomethane	ND	ug/L ug/L	25.0 10.0	1 1	05/21/24 22:43 591-78-6



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-8	Lab ID: 503	73452004	Collected: 05/16/2	4 11:03	Received: 05/16/24 14:47 Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed CAS No.	Qual
8260 MSV Indiana	Analytical Metl	nod: EPA 50	030/8260			
	Pace Analytica	I Services -	Indianapolis			
Isopropylbenzene (Cumene)	21.9	ug/L	5.0	1	05/21/24 22:43 98-82-8	
p-Isopropyltoluene	ND	ug/L	5.0	1	05/21/24 22:43 99-87-6	
Methylene Chloride	ND	ug/L	5.0	1	05/21/24 22:43 75-09-2	
1-Methylnaphthalene	15.7	ug/L	10.0	1	05/21/24 22:43 90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1	05/21/24 22:43 91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1	05/21/24 22:43 108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1	05/21/24 22:43 1634-04-4	
Naphthalene	ND	ug/L	1.2	1	05/21/24 22:43 91-20-3	
n-Propylbenzene	65.0	ug/L	5.0	1	05/21/24 22:43 103-65-1	
Styrene	ND	ug/L	5.0	1	05/21/24 22:43 100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1	05/21/24 22:43 630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	05/21/24 22:43 79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1	05/21/24 22:43 127-18-4	
Toluene	10.0	ug/L	5.0	1	05/21/24 22:43 108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1	05/21/24 22:43 87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1	05/21/24 22:43 120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	05/21/24 22:43 71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	05/21/24 22:43 79-00-5	
Trichloroethene	ND	ug/L	5.0	1	05/21/24 22:43 79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1	05/21/24 22:43 75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1	05/21/24 22:43 96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1	05/21/24 22:43 95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1	05/21/24 22:43 108-67-8	
Vinyl acetate	ND	ug/L	50.0	1	05/21/24 22:43 108-05-4	
Vinyl chloride	ND	ug/L	2.0	1	05/21/24 22:43 75-01-4	
Xylene (Total)	ND	ug/L	10.0	1	05/21/24 22:43 1330-20-7	
Surrogates		-				
Dibromofluoromethane (S)	100	%.	82-128	1	05/21/24 22:43 1868-53-7	
4-Bromofluorobenzene (S)	102	%.	79-124	1	05/21/24 22:43 460-00-4	
Toluene-d8 (S)	97	%.	73-122	1	05/21/24 22:43 2037-26-5	



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-9	Lab ID: 503	73452005	Collected: 05/16/2	24 11:25	Received:	05/16/24 14:47	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260 MSV Indiana	Analytical Metl	hod: EPA 50	030/8260					
	Pace Analytica	al Services -	Indianapolis					
Acetone	ND	ug/L	100	1		05/21/24 23:2	9 67-64-1	
Acrolein	ND	ug/L	50.0	1		05/21/24 23:2	9 107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/21/24 23:2	9 107-13-1	
Benzene	15.0	ug/L	5.0	1		05/21/24 23:2	9 71-43-2	
Bromobenzene	ND	ug/L	5.0	1		05/21/24 23:2	9 108-86-1	
Bromochloromethane	ND	ug/L	5.0	1		05/21/24 23:2		
Bromodichloromethane	ND	ug/L	5.0	1		05/21/24 23:2	9 75-27-4	
Bromoform	ND	ug/L	5.0	1		05/21/24 23:2	9 75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/21/24 23:2		
-Butanone (MEK)	ND	ug/L	25.0	1		05/21/24 23:2		
-Butylbenzene	ND	ug/L	5.0	1		05/21/24 23:2		
ec-Butylbenzene	ND	ug/L	5.0	1		05/21/24 23:2		
ert-Butylbenzene	ND	ug/L	5.0	1		05/21/24 23:2		
Carbon disulfide	ND	ug/L	10.0	1		05/21/24 23:2		
Carbon tetrachloride	ND	ug/L	5.0	1		05/21/24 23:2		
Chlorobenzene	ND	ug/L	5.0	1		05/21/24 23:2		
Chloroethane	ND ND	ug/L	5.0	1		05/21/24 23:2		
Chloroform	ND	ug/L	5.0	1		05/21/24 23:2		
Chloromethane	ND ND	ug/L ug/L	5.0	1		05/21/24 23:2		
-Chlorotoluene	ND ND	•	5.0	1		05/21/24 23:2		
-Chlorotoluene	ND ND	ug/L	5.0	1		05/21/24 23:2		
Dibromochloromethane	ND ND	ug/L	5.0	1		05/21/24 23:2		
	ND ND	ug/L	5.0	1		05/21/24 23:2		
,2-Dibromoethane (EDB)		ug/L		1				
Dibromomethane	ND	ug/L	5.0	1		05/21/24 23:2 05/21/24 23:2		
,2-Dichlorobenzene	ND	ug/L	5.0					
,3-Dichlorobenzene	ND	ug/L	5.0	1		05/21/24 23:2		
,4-Dichlorobenzene	ND	ug/L	5.0	1		05/21/24 23:2		
ans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/21/24 23:2		
Dichlorodifluoromethane	ND	ug/L	5.0	1		05/21/24 23:2		
,1-Dichloroethane	ND	ug/L	5.0	1		05/21/24 23:2		
,2-Dichloroethane	ND	ug/L	5.0	1		05/21/24 23:2		
,1-Dichloroethene	ND	ug/L	5.0	1		05/21/24 23:2		
is-1,2-Dichloroethene	ND	ug/L	5.0	1		05/21/24 23:2		
ans-1,2-Dichloroethene	ND	ug/L	5.0	1		05/21/24 23:2		
,2-Dichloropropane	ND	ug/L	5.0	1		05/21/24 23:2		
,3-Dichloropropane	ND	ug/L	5.0	1		05/21/24 23:2		
,2-Dichloropropane	ND	ug/L	5.0	1		05/21/24 23:2		
,1-Dichloropropene	ND	ug/L	5.0	1		05/21/24 23:2		
is-1,3-Dichloropropene	ND	ug/L	5.0	1			9 10061-01-5	
ans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/21/24 23:2	9 10061-02-6	
thylbenzene	ND	ug/L	5.0	1		05/21/24 23:2	9 100-41-4	
thyl methacrylate	ND	ug/L	100	1		05/21/24 23:2	9 97-63-2	
lexachloro-1,3-butadiene	ND	ug/L	5.0	1		05/21/24 23:2	9 87-68-3	
-Hexane	ND	ug/L	5.0	1		05/21/24 23:2	9 110-54-3	
-Hexanone	ND	ug/L	25.0	1		05/21/24 23:2	9 591-78-6	
odomethane	ND	ug/L	10.0	1		05/21/24 23:2	9 74-88-4	



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-9	Lab ID: 5037	73452005	Collected: 05/16/2	24 11:25	Received: 05/16/24 14:47 M	latrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed	CAS No.	Qual
8260 MSV Indiana	Analytical Meth	od: EPA 50	030/8260				
	Pace Analytical	Services -	Indianapolis				
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1	05/21/24 23:29	98-82-8	
p-Isopropyltoluene	ND	ug/L	5.0	1	05/21/24 23:29	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1	05/21/24 23:29	75-09-2	
1-Methylnaphthalene	ND	ug/L	10.0	1	05/21/24 23:29	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1	05/21/24 23:29	91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1	05/21/24 23:29	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1	05/21/24 23:29	1634-04-4	
Naphthalene	ND	ug/L	1.2	1	05/21/24 23:29	91-20-3	
n-Propylbenzene	ND	ug/L	5.0	1	05/21/24 23:29	103-65-1	
Styrene	ND	ug/L	5.0	1	05/21/24 23:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1	05/21/24 23:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	05/21/24 23:29	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1	05/21/24 23:29	127-18-4	
Toluene	ND	ug/L	5.0	1	05/21/24 23:29	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1	05/21/24 23:29	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1	05/21/24 23:29	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	05/21/24 23:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	05/21/24 23:29	79-00-5	
Trichloroethene	ND	ug/L	5.0	1	05/21/24 23:29	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1	05/21/24 23:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1	05/21/24 23:29	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1	05/21/24 23:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1	05/21/24 23:29	108-67-8	
Vinyl acetate	ND	ug/L	50.0	1	05/21/24 23:29	108-05-4	
Vinyl chloride	ND	ug/L	2.0	1	05/21/24 23:29	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1	05/21/24 23:29	1330-20-7	
Surrogates		_					
Dibromofluoromethane (S)	98	%.	82-128	1	05/21/24 23:29	1868-53-7	
4-Bromofluorobenzene (S)	100	%.	79-124	1	05/21/24 23:29	460-00-4	
Toluene-d8 (S)	96	%.	73-122	1	05/21/24 23:29	2037-26-5	



Project: Columbus Mobil
Pace Project No: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-10	Lab ID: 503	73452006	Collected: 05/16/2	24 12:00	Received: 05/16/24 14:47 Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed CAS No.	Qual
8260 MSV Indiana	Analytical Meth	nod: EPA 50	030/8260			
	Pace Analytica	al Services -	Indianapolis			
Acetone	ND	ug/L	100	1	05/21/24 23:53 67-64-1	
Acrolein	ND	ug/L	50.0	1	05/21/24 23:53 107-02-8	
Acrylonitrile	ND	ug/L	100	1	05/21/24 23:53 107-13-1	
Benzene	ND	ug/L	5.0	1	05/21/24 23:53 71-43-2	
Bromobenzene	ND	ug/L	5.0	1	05/21/24 23:53 108-86-1	
Bromochloromethane	ND	ug/L	5.0	1	05/21/24 23:53 74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1	05/21/24 23:53 75-27-4	
Bromoform	ND	ug/L	5.0	1	05/21/24 23:53 75-25-2	
Bromomethane	ND	ug/L	5.0	1	05/21/24 23:53 74-83-9	
2-Butanone (MEK)	ND	ug/L	25.0	1	05/21/24 23:53 78-93-3	
n-Butylbenzene	ND	ug/L	5.0	1	05/21/24 23:53 104-51-8	
sec-Butylbenzene	ND	ug/L	5.0	1	05/21/24 23:53 104-31-8	
_	ND		5.0	1	05/21/24 23:53 98-06-6	
ert-Butylbenzene		ug/L		1		
Carbon disulfide	ND	ug/L	10.0		05/21/24 23:53 75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1	05/21/24 23:53 56-23-5	
Chlorobenzene	ND	ug/L	5.0	1	05/21/24 23:53 108-90-7	
Chloroethane	ND	ug/L	5.0	1	05/21/24 23:53 75-00-3	
Chloroform	ND	ug/L	5.0	1	05/21/24 23:53 67-66-3	
Chloromethane	ND	ug/L	5.0	1	05/21/24 23:53 74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	1	05/21/24 23:53 95-49-8	
I-Chlorotoluene	ND	ug/L	5.0	1	05/21/24 23:53 106-43-4	
Dibromochloromethane	ND	ug/L	5.0	1	05/21/24 23:53 124-48-1	
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1	05/21/24 23:53 106-93-4	
Dibromomethane	ND	ug/L	5.0	1	05/21/24 23:53 74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	1	05/21/24 23:53 95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1	05/21/24 23:53 541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1	05/21/24 23:53 106-46-7	
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1	05/21/24 23:53 110-57-6	
Dichlorodifluoromethane	ND	ug/L	5.0	1	05/21/24 23:53 75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	1	05/21/24 23:53 75-34-3	
,2-Dichloroethane	ND	ug/L	5.0	1	05/21/24 23:53 107-06-2	
,1-Dichloroethene	ND	ug/L	5.0	1	05/21/24 23:53 75-35-4	
sis-1,2-Dichloroethene	46.0	ug/L	5.0	1	05/21/24 23:53 156-59-2	
rans-1,2-Dichloroethene	ND	ug/L	5.0	1	05/21/24 23:53 156-60-5	
,2-Dichloropropane	ND	ug/L	5.0	1	05/21/24 23:53 78-87-5	
,3-Dichloropropane	ND	ug/L	5.0	1	05/21/24 23:53 142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	1	05/21/24 23:53 594-20-7	
,1-Dichloropropene	ND	ug/L	5.0	1	05/21/24 23:53 563-58-6	
sis-1,3-Dichloropropene	ND	ug/L	5.0	1	05/21/24 23:53 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	5.0	1	05/21/24 23:53 10061-02-6	
Ethylbenzene	ND	ug/L ug/L	5.0	1	05/21/24 23:53 10001-02-0	
Ethyl methacrylate	ND ND	-	100	1	05/21/24 23:53 100-41-4	
		ug/L				
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1	05/21/24 23:53 87-68-3	
n-Hexane	ND	ug/L	5.0	1	05/21/24 23:53 110-54-3	
2-Hexanone	ND	ug/L	25.0	1	05/21/24 23:53 591-78-6	

## **REPORT OF LABORATORY ANALYSIS**

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Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-10	Lab ID: 50373	452006	Collected: 05/16/2	24 12:00	Received: 05/16/24 14:47 Matrix: Water
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed CAS No. Qua
8260 MSV Indiana	Analytical Metho	d: EPA 50	030/8260		
	Pace Analytical S	Services -	Indianapolis		
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1	05/21/24 23:53 98-82-8
p-Isopropyltoluene	ND	ug/L	5.0	1	05/21/24 23:53 99-87-6
Methylene Chloride	ND	ug/L	5.0	1	05/21/24 23:53 75-09-2
1-Methylnaphthalene	ND	ug/L	10.0	1	05/21/24 23:53 90-12-0
2-Methylnaphthalene	ND	ug/L	10.0	1	05/21/24 23:53 91-57-6
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1	05/21/24 23:53 108-10-1
Methyl-tert-butyl ether	ND	ug/L	4.0	1	05/21/24 23:53 1634-04-4
Naphthalene	ND	ug/L	1.2	1	05/21/24 23:53 91-20-3
n-Propylbenzene	ND	ug/L	5.0	1	05/21/24 23:53 103-65-1
Styrene	ND	ug/L	5.0	1	05/21/24 23:53 100-42-5
1,1,2-Tetrachloroethane	ND	ug/L	5.0	1	05/21/24 23:53 630-20-6
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	05/21/24 23:53 79-34-5
Tetrachloroethene	1690	ug/L	100	20	05/22/24 00:16 127-18-4
Toluene	ND	ug/L	5.0	1	05/21/24 23:53 108-88-3
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1	05/21/24 23:53 87-61-6
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1	05/21/24 23:53 120-82-1
1,1,1-Trichloroethane	ND	ug/L	5.0	1	05/21/24 23:53 71-55-6
1,1,2-Trichloroethane	ND	ug/L	5.0	1	05/21/24 23:53 79-00-5
Trichloroethene	78.0	ug/L	5.0	1	05/21/24 23:53 79-01-6
Trichlorofluoromethane	ND	ug/L	5.0	1	05/21/24 23:53 75-69-4
1,2,3-Trichloropropane	ND	ug/L	5.0	1	05/21/24 23:53 96-18-4
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1	05/21/24 23:53 95-63-6
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1	05/21/24 23:53 108-67-8
Vinyl acetate	ND	ug/L	50.0	1	05/21/24 23:53 108-05-4
Vinyl chloride	ND	ug/L	2.0	1	05/21/24 23:53 75-01-4
Xylene (Total)	ND	ug/L	10.0	1	05/21/24 23:53 1330-20-7
Surrogates		J			
Dibromofluoromethane (S)	94	%.	82-128	1	05/21/24 23:53 1868-53-7
4-Bromofluorobenzene (S)	102	%.	79-124	1	05/21/24 23:53 460-00-4
Toluene-d8 (S)	98	%.	73-122	1	05/21/24 23:53 2037-26-5



Project: Columbus Mobil
Page Project No.: 50273453

Date: 05/23/2024 03:52 PM

Sample: MW-11	Lab ID: 503	73452007	Collected: 05/16/2	24 12:10	Received: 05/16/24 14:47 Matrix: Water
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed CAS No. Qu
8260 MSV Indiana	Analytical Meth	nod: EPA 50	030/8260		
	Pace Analytica	l Services -	Indianapolis		
Acetone	ND	ug/L	1000	10	05/22/24 00:39 67-64-1
Acrolein	ND	ug/L	500	10	05/22/24 00:39 107-02-8
Acrylonitrile	ND	ug/L	1000	10	05/22/24 00:39 107-13-1
Benzene	10200	ug/L	500	100	05/22/24 01:03 71-43-2
Bromobenzene	ND	ug/L	50.0	10	05/22/24 00:39 108-86-1
Bromochloromethane	ND	ug/L	50.0	10	05/22/24 00:39 74-97-5
Bromodichloromethane	ND	ug/L	50.0	10	05/22/24 00:39 75-27-4
Bromoform	ND	ug/L	50.0	10	05/22/24 00:39 75-25-2
Bromomethane	ND	ug/L	50.0	10	05/22/24 00:39 74-83-9
2-Butanone (MEK)	ND	ug/L	250	10	05/22/24 00:39 78-93-3
n-Butylbenzene	96.5	ug/L	50.0	10	05/22/24 00:35 70 33 3
sec-Butylbenzene	ND	_	50.0	10	05/22/24 00:39 135-98-8
ert-Butylbenzene	ND ND	ug/L	50.0	10	05/22/24 00:39 133-93-8
•		ug/L			
Carbon disulfide	ND	ug/L	100	10	05/22/24 00:39 75-15-0
Carbon tetrachloride	ND	ug/L	50.0	10	05/22/24 00:39 56-23-5
Chlorobenzene	ND	ug/L	50.0	10	05/22/24 00:39 108-90-7
Chloroethane	ND	ug/L	50.0	10	05/22/24 00:39 75-00-3
Chloroform	ND	ug/L	50.0	10	05/22/24 00:39 67-66-3
Chloromethane	ND	ug/L	50.0	10	05/22/24 00:39 74-87-3
-Chlorotoluene	ND	ug/L	50.0	10	05/22/24 00:39 95-49-8
-Chlorotoluene	ND	ug/L	50.0	10	05/22/24 00:39 106-43-4
Dibromochloromethane	ND	ug/L	50.0	10	05/22/24 00:39 124-48-1
,2-Dibromoethane (EDB)	ND	ug/L	50.0	10	05/22/24 00:39 106-93-4
Dibromomethane	ND	ug/L	50.0	10	05/22/24 00:39 74-95-3
,2-Dichlorobenzene	ND	ug/L	50.0	10	05/22/24 00:39 95-50-1
,3-Dichlorobenzene	ND	ug/L	50.0	10	05/22/24 00:39 541-73-1
,4-Dichlorobenzene	ND	ug/L	50.0	10	05/22/24 00:39 106-46-7
rans-1,4-Dichloro-2-butene	ND	ug/L	1000	10	05/22/24 00:39 110-57-6
Dichlorodifluoromethane	ND	ug/L	50.0	10	05/22/24 00:39 75-71-8
1,1-Dichloroethane	ND	ug/L	50.0	10	05/22/24 00:39 75-34-3
,2-Dichloroethane	ND	ug/L	50.0	10	05/22/24 00:39 107-06-2
.1-Dichloroethene	ND	ug/L	50.0	10	05/22/24 00:39 75-35-4
cis-1,2-Dichloroethene	ND	ug/L	50.0	10	05/22/24 00:39 156-59-2
rans-1,2-Dichloroethene	ND	ug/L	50.0	10	05/22/24 00:39 156-60-5
,2-Dichloropropane	ND	ug/L	50.0	10	05/22/24 00:39 78-87-5
,3-Dichloropropane	ND	ug/L	50.0	10	05/22/24 00:39 142-28-9
2,2-Dichloropropane	ND ND	ug/L	50.0	10	05/22/24 00:39 594-20-7
,1-Dichloropropene	ND	ug/L	50.0	10	05/22/24 00:33 563-58-6
		-			
ris-1,3-Dichloropropene	ND ND	ug/L	50.0	10 10	05/22/24 00:39 10061-01-5
rans-1,3-Dichloropropene	ND	ug/L	50.0		05/22/24 00:39 10061-02-6
Ethylbenzene	3470	ug/L	500	100	05/22/24 01:03 100-41-4
Ethyl methacrylate	ND	ug/L	1000	10	05/22/24 00:39 97-63-2
Hexachloro-1,3-butadiene	ND	ug/L	50.0	10	05/22/24 00:39 87-68-3
n-Hexane	704	ug/L	50.0	10	05/22/24 00:39 110-54-3
2-Hexanone	ND	ug/L	250	10	05/22/24 00:39 591-78-6
odomethane	ND	ug/L	100	10	05/22/24 00:39 74-88-4



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-11	Lab ID: 5037	3452007	Collected: 05/16/2	24 12:10	Received: 05/16/24 14:47 Matrix: Water
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed CAS No. Qu
8260 MSV Indiana	Analytical Meth	od: EPA 50	030/8260		
	Pace Analytical	Services -	Indianapolis		
Isopropylbenzene (Cumene)	160	ug/L	50.0	10	05/22/24 00:39 98-82-8
p-Isopropyltoluene ,	ND	ug/L	50.0	10	05/22/24 00:39 99-87-6
Methylene Chloride	ND	ug/L	50.0	10	05/22/24 00:39 75-09-2
1-Methylnaphthalene	120	ug/L	100	10	05/22/24 00:39 90-12-0
2-Methylnaphthalene	182	ug/L	100	10	05/22/24 00:39 91-57-6
4-Methyl-2-pentanone (MIBK)	ND	ug/L	250	10	05/22/24 00:39 108-10-1
Methyl-tert-butyl ether	ND	ug/L	40.0	10	05/22/24 00:39 1634-04-4
Naphthalene	483	ug/L	12.0	10	05/22/24 00:39 91-20-3
n-Propylbenzene	437	ug/L	50.0	10	05/22/24 00:39 103-65-1
Styrene	ND	ug/L	50.0	10	05/22/24 00:39 100-42-5
1,1,1,2-Tetrachloroethane	ND	ug/L	50.0	10	05/22/24 00:39 630-20-6
1,1,2,2-Tetrachloroethane	ND	ug/L	50.0	10	05/22/24 00:39 79-34-5
Tetrachloroethene	ND	ug/L	50.0	10	05/22/24 00:39 127-18-4
Toluene	9490	ug/L	500	100	05/22/24 01:03 108-88-3
1,2,3-Trichlorobenzene	ND	ug/L	50.0	10	05/22/24 00:39 87-61-6
1,2,4-Trichlorobenzene	ND	ug/L	50.0	10	05/22/24 00:39 120-82-1
1,1,1-Trichloroethane	ND	ug/L	50.0	10	05/22/24 00:39 71-55-6
1,1,2-Trichloroethane	ND	ug/L	50.0	10	05/22/24 00:39 79-00-5
Trichloroethene	ND	ug/L	50.0	10	05/22/24 00:39 79-01-6
Trichlorofluoromethane	ND	ug/L	50.0	10	05/22/24 00:39 75-69-4
1,2,3-Trichloropropane	ND	ug/L	50.0	10	05/22/24 00:39 96-18-4
1,2,4-Trimethylbenzene	2860	ug/L	50.0	10	05/22/24 00:39 95-63-6
1,3,5-Trimethylbenzene	687	ug/L	50.0	10	05/22/24 00:39 108-67-8
Vinyl acetate	ND	ug/L	500	10	05/22/24 00:39 108-05-4
Vinyl chloride	ND	ug/L	20.0	10	05/22/24 00:39 75-01-4
Xylene (Total)	18600	ug/L	1000	100	05/22/24 01:03 1330-20-7
Surrogates		-			
Dibromofluoromethane (S)	97	%.	82-128	10	05/22/24 00:39 1868-53-7
4-Bromofluorobenzene (S)	99	%.	79-124	10	05/22/24 00:39 460-00-4
Toluene-d8 (S)	98	%.	73-122	10	05/22/24 00:39 2037-26-5



Project: Columbus Mobil
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Date: 05/23/2024 03:52 PM

Sample: MW-12	Lab ID: 503	73452008	Collected: 05/16/2	24 11:40	Received:	05/16/24 14:47	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260 MSV Indiana	Analytical Meth	nod: EPA 50	030/8260					
	Pace Analytica	l Services -	Indianapolis					
Acetone	ND	ug/L	500	5		05/22/24 01:2	6 67-64-1	
Acrolein	ND	ug/L	250	5		05/22/24 01:2	6 107-02-8	
Acrylonitrile	ND	ug/L	500	5		05/22/24 01:2	6 107-13-1	
Benzene	6950	ug/L	250	50		05/22/24 01:4	9 71-43-2	
Bromobenzene	ND	ug/L	25.0	5		05/22/24 01:2	6 108-86-1	
Bromochloromethane	ND	ug/L	25.0	5		05/22/24 01:2		
Bromodichloromethane	ND	ug/L	25.0	5		05/22/24 01:2	6 75-27-4	
Bromoform	ND	ug/L	25.0	5		05/22/24 01:2		
Bromomethane	ND	ug/L	25.0	5		05/22/24 01:2		
P-Butanone (MEK)	ND	ug/L	125	5		05/22/24 01:2		
n-Butylbenzene	ND	ug/L	25.0	5		05/22/24 01:2		
ec-Butylbenzene	ND	ug/L	25.0	5		05/22/24 01:2		
ert-Butylbenzene	ND	ug/L	25.0	5		05/22/24 01:2		
Carbon disulfide	ND ND	ug/L	50.0	5		05/22/24 01:2		
Carbon tetrachloride	ND ND	•	25.0	5		05/22/24 01:2		
Chlorobenzene		ug/L		5				
	ND	ug/L	25.0	5 5		05/22/24 01:2		
Chloroethane	ND	ug/L	25.0			05/22/24 01:2		
Chloroform	ND	ug/L	25.0	5		05/22/24 01:2		
Chloromethane	ND	ug/L	25.0	5		05/22/24 01:2		
2-Chlorotoluene	ND	ug/L	25.0	5		05/22/24 01:2		
-Chlorotoluene	ND	ug/L	25.0	5		05/22/24 01:2		
Dibromochloromethane	ND	ug/L	25.0	5		05/22/24 01:2		
,2-Dibromoethane (EDB)	ND	ug/L	25.0	5		05/22/24 01:2		
Dibromomethane	ND	ug/L	25.0	5		05/22/24 01:2		
,2-Dichlorobenzene	ND	ug/L	25.0	5		05/22/24 01:2		
,3-Dichlorobenzene	ND	ug/L	25.0	5		05/22/24 01:2	6 541-73-1	
,4-Dichlorobenzene	ND	ug/L	25.0	5		05/22/24 01:2		
rans-1,4-Dichloro-2-butene	ND	ug/L	500	5		05/22/24 01:2	6 110-57-6	
Dichlorodifluoromethane	ND	ug/L	25.0	5		05/22/24 01:2	6 75-71-8	
,1-Dichloroethane	ND	ug/L	25.0	5		05/22/24 01:2	6 75-34-3	
,2-Dichloroethane	ND	ug/L	25.0	5		05/22/24 01:2		
,1-Dichloroethene	ND	ug/L	25.0	5		05/22/24 01:2	6 75-35-4	
is-1,2-Dichloroethene	ND	ug/L	25.0	5		05/22/24 01:2	6 156-59-2	
ans-1,2-Dichloroethene	ND	ug/L	25.0	5		05/22/24 01:2	6 156-60-5	
,2-Dichloropropane	ND	ug/L	25.0	5		05/22/24 01:2	6 78-87-5	
,3-Dichloropropane	ND	ug/L	25.0	5		05/22/24 01:2	6 142-28-9	
2,2-Dichloropropane	ND	ug/L	25.0	5		05/22/24 01:2	6 594-20-7	
,1-Dichloropropene	ND	ug/L	25.0	5		05/22/24 01:2	6 563-58-6	
is-1,3-Dichloropropene	ND	ug/L	25.0	5			6 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	25.0	5			6 10061-02-6	
Ethylbenzene	2270	ug/L	250	50		05/22/24 01:4		
Ethyl methacrylate	ND	ug/L	500	5		05/22/24 01:2		
Hexachloro-1,3-butadiene	ND	ug/L	25.0	5		05/22/24 01:2		
i-Hexane	259	ug/L	25.0	5		05/22/24 01:2		
-Hexanone	ND	ug/L	125	5		05/22/24 01:2		
odomethane	ND ND	ug/L ug/L	50.0	5 5		05/22/24 01:2		

## **REPORT OF LABORATORY ANALYSIS**

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Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-12	Lab ID: 503	73452008	Collected: 05/16/2	4 11:40	Received: 05/16/24 14:47	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed	CAS No.	Qua
8260 MSV Indiana	Analytical Meth	nod: EPA 50	030/8260				
	Pace Analytica	l Services -	Indianapolis				
Isopropylbenzene (Cumene)	97.5	ug/L	25.0	5	05/22/24 01	:26 98-82-8	
p-Isopropyltoluene	ND	ug/L	25.0	5	05/22/24 01	:26 99-87-6	
Methylene Chloride	ND	ug/L	25.0	5	05/22/24 01	:26 75-09-2	
1-Methylnaphthalene	117	ug/L	50.0	5	05/22/24 01	:26 90-12-0	
2-Methylnaphthalene	192	ug/L	50.0	5	05/22/24 01	:26 91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	125	5	05/22/24 01	:26 108-10-1	
Methyl-tert-butyl ether	ND	ug/L	20.0	5	05/22/24 01	:26 1634-04-4	
Naphthalene	411	ug/L	6.0	5	05/22/24 01	:26 91-20-3	
n-Propylbenzene	280	ug/L	25.0	5	05/22/24 01	:26 103-65-1	
Styrene	ND	ug/L	25.0	5	05/22/24 01	:26 100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	25.0	5	05/22/24 01	:26 630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	25.0	5	05/22/24 01	:26 79-34-5	
Tetrachloroethene	ND	ug/L	25.0	5	05/22/24 01	:26 127-18-4	
Toluene	5460	ug/L	250	50	05/22/24 01	:49 108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	25.0	5	05/22/24 01	:26 87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	25.0	5	05/22/24 01	:26 120-82-1	
1,1,1-Trichloroethane	ND	ug/L	25.0	5	05/22/24 01	:26 71-55-6	
1,1,2-Trichloroethane	ND	ug/L	25.0	5	05/22/24 01	:26 79-00-5	
Trichloroethene	ND	ug/L	25.0	5	05/22/24 01	:26 79-01-6	
Trichlorofluoromethane	ND	ug/L	25.0	5	05/22/24 01	:26 75-69-4	
1,2,3-Trichloropropane	ND	ug/L	25.0	5	05/22/24 01	:26 96-18-4	
1,2,4-Trimethylbenzene	2670	ug/L	250	50	05/22/24 01	:49 95-63-6	
1,3,5-Trimethylbenzene	482	ug/L	25.0	5	05/22/24 01	:26 108-67-8	
Vinyl acetate	ND	ug/L	250	5	05/22/24 01	:26 108-05-4	
Vinyl chloride	ND	ug/L	10.0	5	05/22/24 01	:26 75-01-4	
Xylene (Total)	12000	ug/L	500	50	05/22/24 01	:49 1330-20-7	
Surrogates		J					
Dibromofluoromethane (S)	94	%.	82-128	5	05/22/24 01	:26 1868-53-7	
4-Bromofluorobenzene (S)	100	%.	79-124	5	05/22/24 01	:26 460-00-4	
Toluene-d8 (S)	98	%.	73-122	5	05/22/24 01	:26 2037-26-5	



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-13	Lab ID: 503	73452009	Collected: 05/16/2	24 11:08	Received:	05/16/24 14:47	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260 MSV Indiana	Analytical Meth	od: EPA 50	030/8260					
	Pace Analytica	l Services -	Indianapolis					
Acetone	ND	ug/L	100	1		05/22/24 02:1	2 67-64-1	
Acrolein	ND	ug/L	50.0	1		05/22/24 02:1	2 107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/22/24 02:1	2 107-13-1	
Benzene	8.6	ug/L	5.0	1		05/22/24 02:1		
Bromobenzene	ND	ug/L	5.0	1		05/22/24 02:1		
Bromochloromethane	ND	ug/L	5.0	1		05/22/24 02:1		
Bromodichloromethane	ND	ug/L	5.0	1		05/22/24 02:1		
Bromoform	ND	ug/L	5.0	1		05/22/24 02:1		
Bromomethane	ND	ug/L	5.0	1		05/22/24 02:1		
-Butanone (MEK)	ND	ug/L	25.0	1		05/22/24 02:1		
n-Butylbenzene	ND	ug/L	5.0	1		05/22/24 02:1		
sec-Butylbenzene	ND	ug/L	5.0	1		05/22/24 02:1		
ert-Butylbenzene	ND	ug/L	5.0	1		05/22/24 02:1		
Carbon disulfide	ND	ug/L	10.0	1		05/22/24 02:1		
Carbon tetrachloride	ND	ug/L	5.0	1		05/22/24 02:1		
Chlorobenzene	ND ND	ug/L	5.0	1		05/22/24 02:1		
Chloroethane	ND ND	ug/L ug/L	5.0	1		05/22/24 02:1		
Chloroform	ND ND	ug/L	5.0	1		05/22/24 02:1		
Chloromethane	ND ND	-	5.0	1		05/22/24 02:1		
		ug/L		1				
-Chlorotoluene	ND	ug/L	5.0			05/22/24 02:1		
-Chlorotoluene	ND	ug/L	5.0	1 1		05/22/24 02:1		
Dibromochloromethane	ND	ug/L	5.0			05/22/24 02:1		
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		05/22/24 02:1		
Dibromomethane	ND	ug/L	5.0	1		05/22/24 02:1		
,2-Dichlorobenzene	ND	ug/L	5.0	1		05/22/24 02:1		
,3-Dichlorobenzene	ND	ug/L	5.0	1		05/22/24 02:1		
,4-Dichlorobenzene	ND	ug/L	5.0	1		05/22/24 02:1		
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/22/24 02:1		
Dichlorodifluoromethane	ND	ug/L	5.0	1		05/22/24 02:1		
,1-Dichloroethane	ND	ug/L	5.0	1		05/22/24 02:1		
,2-Dichloroethane	ND	ug/L	5.0	1		05/22/24 02:1		
,1-Dichloroethene	ND	ug/L	5.0	1		05/22/24 02:1		
is-1,2-Dichloroethene	ND	ug/L	5.0	1		05/22/24 02:1		
ans-1,2-Dichloroethene	ND	ug/L	5.0	1		05/22/24 02:1	2 156-60-5	
,2-Dichloropropane	ND	ug/L	5.0	1		05/22/24 02:1		
,3-Dichloropropane	ND	ug/L	5.0	1		05/22/24 02:1	2 142-28-9	
,2-Dichloropropane	ND	ug/L	5.0	1		05/22/24 02:1		
,1-Dichloropropene	ND	ug/L	5.0	1		05/22/24 02:1		
sis-1,3-Dichloropropene	ND	ug/L	5.0	1		05/22/24 02:1	2 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/22/24 02:1	2 10061-02-6	
thylbenzene	ND	ug/L	5.0	1		05/22/24 02:1	2 100-41-4	
thyl methacrylate	ND	ug/L	100	1		05/22/24 02:1	2 97-63-2	
lexachloro-1,3-butadiene	ND	ug/L	5.0	1		05/22/24 02:1	2 87-68-3	
-Hexane	ND	ug/L	5.0	1		05/22/24 02:1	2 110-54-3	
P-Hexanone	ND	ug/L	25.0	1		05/22/24 02:1	2 591-78-6	
odomethane	ND	ug/L	10.0	1		05/22/24 02:1	2 74-88-4	



Project: Columbus Mobil Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-13	Lab ID: 503	73452009	Collected: 05/16/2	24 11:08	Received: 05/16/24 14:47 Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed CAS No.	Qual
8260 MSV Indiana	Analytical Meth	nod: EPA 50	030/8260			
	Pace Analytica	l Services -	Indianapolis			
Isopropylbenzene (Cumene)	7.6	ug/L	5.0	1	05/22/24 02:12 98-82-8	
p-Isopropyltoluene	ND	ug/L	5.0	1	05/22/24 02:12 99-87-6	
Methylene Chloride	ND	ug/L	5.0	1	05/22/24 02:12 75-09-2	
1-Methylnaphthalene	10.4	ug/L	10.0	1	05/22/24 02:12 90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1	05/22/24 02:12 91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1	05/22/24 02:12 108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1	05/22/24 02:12 1634-04-4	
Naphthalene	6.5	ug/L	1.2	1	05/22/24 02:12 91-20-3	
n-Propylbenzene	18.6	ug/L	5.0	1	05/22/24 02:12 103-65-1	
Styrene	ND	ug/L	5.0	1	05/22/24 02:12 100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1	05/22/24 02:12 630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	05/22/24 02:12 79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1	05/22/24 02:12 127-18-4	
Toluene	ND	ug/L	5.0	1	05/22/24 02:12 108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1	05/22/24 02:12 87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1	05/22/24 02:12 120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	05/22/24 02:12 71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	05/22/24 02:12 79-00-5	
Trichloroethene	ND	ug/L	5.0	1	05/22/24 02:12 79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1	05/22/24 02:12 75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1	05/22/24 02:12 96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1	05/22/24 02:12 95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1	05/22/24 02:12 108-67-8	
Vinyl acetate	ND	ug/L	50.0	1	05/22/24 02:12 108-05-4	
Vinyl chloride	ND	ug/L	2.0	1	05/22/24 02:12 75-01-4	
Xylene (Total)	10.8	ug/L	10.0	1	05/22/24 02:12 1330-20-7	
Surrogates						
Dibromofluoromethane (S)	95	%.	82-128	1	05/22/24 02:12 1868-53-7	
4-Bromofluorobenzene (S)	103	%.	79-124	1	05/22/24 02:12 460-00-4	
Toluene-d8 (S)	99	%.	73-122	1	05/22/24 02:12 2037-26-5	



Project: Columbus Mobil
Page Project No.: 50273453

Date: 05/23/2024 03:52 PM

Sample: MW-14	Lab ID: 503	73452010	Collected: 05/16/2	24 11:45	Received:	05/16/24 14:47	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260 MSV Indiana	Analytical Metl	hod: EPA 50	030/8260					
	Pace Analytica	al Services -	Indianapolis					
Acetone	ND	ug/L	100	1		05/22/24 02:36	6 67-64-1	
Acrolein	ND	ug/L	50.0	1		05/22/24 02:36	6 107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/22/24 02:36	6 107-13-1	
Benzene	108	ug/L	5.0	1		05/22/24 02:36	6 71-43-2	
Bromobenzene	ND	ug/L	5.0	1		05/22/24 02:36	6 108-86-1	
Bromochloromethane	ND	ug/L	5.0	1		05/22/24 02:36	6 74-97-5	
Bromodichloromethane	ND	ug/L	5.0	1		05/22/24 02:36		
Bromoform	ND	ug/L	5.0	1		05/22/24 02:36		
Bromomethane	ND	ug/L	5.0	1		05/22/24 02:36		
-Butanone (MEK)	ND	ug/L	25.0	1		05/22/24 02:36		
n-Butylbenzene	ND	ug/L	5.0	1		05/22/24 02:36		
ec-Butylbenzene	ND ND	ug/L	5.0	1		05/22/24 02:36		
•	ND ND	•	5.0	1		05/22/24 02:36		
ert-Butylbenzene		ug/L						
Carbon disulfide	ND	ug/L	10.0	1		05/22/24 02:36		
Carbon tetrachloride	ND	ug/L	5.0	1		05/22/24 02:36		
Chlorobenzene	ND	ug/L	5.0	1		05/22/24 02:36		
Chloroethane	ND	ug/L	5.0	1		05/22/24 02:36		
Chloroform	ND	ug/L	5.0	1		05/22/24 02:36		
Chloromethane	ND	ug/L	5.0	1		05/22/24 02:36		
-Chlorotoluene	ND	ug/L	5.0	1		05/22/24 02:36	6 95-49-8	
-Chlorotoluene	ND	ug/L	5.0	1		05/22/24 02:36	6 106-43-4	
Dibromochloromethane	ND	ug/L	5.0	1		05/22/24 02:36	6 124-48-1	
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		05/22/24 02:36	5 106-93-4	
Dibromomethane	ND	ug/L	5.0	1		05/22/24 02:36	6 74-95-3	
,2-Dichlorobenzene	ND	ug/L	5.0	1		05/22/24 02:36	95-50-1	
,3-Dichlorobenzene	ND	ug/L	5.0	1		05/22/24 02:36	5 541-73-1	
,4-Dichlorobenzene	ND	ug/L	5.0	1		05/22/24 02:36	6 106-46-7	
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/22/24 02:36		
Dichlorodifluoromethane	ND	ug/L	5.0	1		05/22/24 02:36	6 75-71-8	
.1-Dichloroethane	ND	ug/L	5.0	1		05/22/24 02:36		
.2-Dichloroethane	ND	ug/L	5.0	1		05/22/24 02:36	6 107-06-2	
,1-Dichloroethene	ND	ug/L	5.0	1		05/22/24 02:36		
is-1,2-Dichloroethene	ND	ug/L	5.0	1		05/22/24 02:36		
ans-1,2-Dichloroethene	ND	ug/L	5.0	1		05/22/24 02:36		
,2-Dichloropropane	ND	ug/L	5.0	1		05/22/24 02:36		
,3-Dichloropropane	ND ND	ug/L	5.0	1		05/22/24 02:36		
	ND ND		5.0	1		05/22/24 02:36		
,2-Dichloropropane		ug/L						
,1-Dichloropropene	ND	ug/L	5.0	1		05/22/24 02:36		
is-1,3-Dichloropropene	ND	ug/L	5.0	1		05/22/24 02:36		
ans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/22/24 02:36		
thylbenzene	ND	ug/L	5.0	1		05/22/24 02:36		
thyl methacrylate	ND	ug/L	100	1		05/22/24 02:36		
lexachloro-1,3-butadiene	ND	ug/L	5.0	1		05/22/24 02:36		
-Hexane	ND	ug/L	5.0	1		05/22/24 02:36		
-Hexanone	ND	ug/L	25.0	1		05/22/24 02:36		
odomethane	ND	ug/L	10.0	1		05/22/24 02:36	6 74-88-4	

## **REPORT OF LABORATORY ANALYSIS**

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Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: MW-14	Lab ID: 503	73452010	Collected: 05/16/2	24 11:45	Received: 05/16/24 14:47 Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed CAS No.	Qual
8260 MSV Indiana	Analytical Meth	nod: EPA 50	30/8260			
	Pace Analytica	l Services -	Indianapolis			
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1	05/22/24 02:36 98-82-8	
p-Isopropyltoluene	ND	ug/L	5.0	1	05/22/24 02:36 99-87-6	
Methylene Chloride	ND	ug/L	5.0	1	05/22/24 02:36 75-09-2	
1-Methylnaphthalene	ND	ug/L	10.0	1	05/22/24 02:36 90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	1	05/22/24 02:36 91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1	05/22/24 02:36 108-10-1	
Methyl-tert-butyl ether	ND	ug/L	4.0	1	05/22/24 02:36 1634-04-4	
Naphthalene	ND	ug/L	1.2	1	05/22/24 02:36 91-20-3	
n-Propylbenzene	ND	ug/L	5.0	1	05/22/24 02:36 103-65-1	
Styrene	ND	ug/L	5.0	1	05/22/24 02:36 100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1	05/22/24 02:36 630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	05/22/24 02:36 79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1	05/22/24 02:36 127-18-4	
Toluene	ND	ug/L	5.0	1	05/22/24 02:36 108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1	05/22/24 02:36 87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1	05/22/24 02:36 120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	1	05/22/24 02:36 71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1	05/22/24 02:36 79-00-5	
Trichloroethene	ND	ug/L	5.0	1	05/22/24 02:36 79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1	05/22/24 02:36 75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	1	05/22/24 02:36 96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1	05/22/24 02:36 95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1	05/22/24 02:36 108-67-8	
Vinyl acetate	ND	ug/L	50.0	1	05/22/24 02:36 108-05-4	
Vinyl chloride	ND	ug/L	2.0	1	05/22/24 02:36 75-01-4	
Xylene (Total)	ND	ug/L	10.0	1	05/22/24 02:36 1330-20-7	
Surrogates		Ŭ				
Dibromofluoromethane (S)	97	%.	82-128	1	05/22/24 02:36 1868-53-7	
4-Bromofluorobenzene (S)	101	%.	79-124	1	05/22/24 02:36 460-00-4	
Toluene-d8 (S)	96	%.	73-122	1	05/22/24 02:36 2037-26-5	



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: DUP	Lab ID: 503	73452011	Collected: 05/16/2	24 08:00	Received:	05/16/24 14:47	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260 MSV Indiana	Analytical Meth	nod: EPA 50	030/8260					
	Pace Analytica	l Services -	- Indianapolis					
Acetone	ND	ug/L	1000	10		05/22/24 02:5	9 67-64-1	
Acrolein	ND	ug/L	500	10		05/22/24 02:5	9 107-02-8	
Acrylonitrile	ND	ug/L	1000	10		05/22/24 02:5	9 107-13-1	
Benzene	4920	ug/L	500	100		05/22/24 03:2	2 71-43-2	
Bromobenzene	ND	ug/L	50.0	10		05/22/24 02:5	9 108-86-1	
Bromochloromethane	ND	ug/L	50.0	10		05/22/24 02:5	9 74-97-5	
Bromodichloromethane	ND	ug/L	50.0	10		05/22/24 02:5		
Bromoform	ND	ug/L	50.0	10		05/22/24 02:5	9 75-25-2	
Bromomethane	ND	ug/L	50.0	10		05/22/24 02:5		
-Butanone (MEK)	ND	ug/L	250	10		05/22/24 02:5		
-Butylbenzene	ND	ug/L	50.0	10		05/22/24 02:5		
ec-Butylbenzene	ND	ug/L	50.0	10		05/22/24 02:5		
ert-Butylbenzene	ND	ug/L	50.0	10		05/22/24 02:5		
Carbon disulfide	ND	ug/L	100	10		05/22/24 02:5		
Carbon tetrachloride	ND	ug/L	50.0	10		05/22/24 02:5		
Chlorobenzene	ND	ug/L	50.0	10		05/22/24 02:5		
hloroethane	ND ND	ug/L	50.0	10		05/22/24 02:5		
Chloroform	ND	ug/L	50.0	10		05/22/24 02:5		
Chloromethane	ND ND	ug/L ug/L	50.0	10		05/22/24 02:5		
-Chlorotoluene	ND ND	ug/L	50.0	10		05/22/24 02:5		
-Chlorotoluene	ND ND		50.0	10		05/22/24 02:5		
Dibromochloromethane	ND ND	ug/L	50.0	10		05/22/24 02:5		
	ND ND	ug/L	50.0	10		05/22/24 02:5		
,2-Dibromoethane (EDB) Dibromomethane	ND ND	ug/L	50.0	10		05/22/24 02:5		
		ug/L				05/22/24 02:5		
,2-Dichlorobenzene	ND	ug/L	50.0	10				
,3-Dichlorobenzene	ND	ug/L	50.0	10		05/22/24 02:5		
,4-Dichlorobenzene	ND	ug/L	50.0	10		05/22/24 02:5		
ans-1,4-Dichloro-2-butene	ND	ug/L	1000	10		05/22/24 02:5		
Pichlorodifluoromethane	ND	ug/L	50.0	10		05/22/24 02:5		
,1-Dichloroethane	ND	ug/L	50.0	10		05/22/24 02:5		
,2-Dichloroethane	ND	ug/L	50.0	10		05/22/24 02:5		
,1-Dichloroethene	ND	ug/L	50.0	10		05/22/24 02:5		
is-1,2-Dichloroethene	ND	ug/L	50.0	10		05/22/24 02:5		
ans-1,2-Dichloroethene	ND	ug/L	50.0	10		05/22/24 02:5		
,2-Dichloropropane	ND	ug/L	50.0	10		05/22/24 02:5		
,3-Dichloropropane	ND	ug/L	50.0	10		05/22/24 02:5		
,2-Dichloropropane	ND	ug/L	50.0	10		05/22/24 02:5		
,1-Dichloropropene	ND	ug/L	50.0	10		05/22/24 02:5		
is-1,3-Dichloropropene	ND	ug/L	50.0	10			9 10061-01-5	
ans-1,3-Dichloropropene	ND	ug/L	50.0	10			9 10061-02-6	
thylbenzene	1760	ug/L	50.0	10		05/22/24 02:5		
thyl methacrylate	ND	ug/L	1000	10		05/22/24 02:5		
lexachloro-1,3-butadiene	ND	ug/L	50.0	10		05/22/24 02:5		
-Hexane	262	ug/L	50.0	10		05/22/24 02:5		
-Hexanone	ND	ug/L	250	10		05/22/24 02:5		
odomethane	ND	ug/L	100	10		05/22/24 02:5	9 74-88-4	



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: DUP	Lab ID: 5037	73452011	Collected: 05/16/	24 08:00	Received: 05/16/24 14:47 Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed CAS No.	Qual
8260 MSV Indiana	Analytical Meth	od: EPA 50	030/8260			
	Pace Analytical	Services -	Indianapolis			
Isopropylbenzene (Cumene)	114	ug/L	50.0	10	05/22/24 02:59 98-82-8	
p-Isopropyltoluene	ND	ug/L	50.0	10	05/22/24 02:59 99-87-6	
Methylene Chloride	ND	ug/L	50.0	10	05/22/24 02:59 75-09-2	
1-Methylnaphthalene	217	ug/L	100	10	05/22/24 02:59 90-12-0	
2-Methylnaphthalene	343	ug/L	100	10	05/22/24 02:59 91-57-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	250	10	05/22/24 02:59 108-10-1	
Methyl-tert-butyl ether	ND	ug/L	40.0	10	05/22/24 02:59 1634-04-4	
Naphthalene	515	ug/L	12.0	10	05/22/24 02:59 91-20-3	
n-Propylbenzene	331	ug/L	50.0	10	05/22/24 02:59 103-65-1	
Styrene	ND	ug/L	50.0	10	05/22/24 02:59 100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	50.0	10	05/22/24 02:59 630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	50.0	10	05/22/24 02:59 79-34-5	
Tetrachloroethene	ND	ug/L	50.0	10	05/22/24 02:59 127-18-4	
Toluene	3900	ug/L	500	100	05/22/24 03:22 108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	50.0	10	05/22/24 02:59 87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	50.0	10	05/22/24 02:59 120-82-1	
1,1,1-Trichloroethane	ND	ug/L	50.0	10	05/22/24 02:59 71-55-6	
1,1,2-Trichloroethane	ND	ug/L	50.0	10	05/22/24 02:59 79-00-5	
Trichloroethene	ND	ug/L	50.0	10	05/22/24 02:59 79-01-6	
Trichlorofluoromethane	ND	ug/L	50.0	10	05/22/24 02:59 75-69-4	
1,2,3-Trichloropropane	ND	ug/L	50.0	10	05/22/24 02:59 96-18-4	
1,2,4-Trimethylbenzene	2390	ug/L	50.0	10	05/22/24 02:59 95-63-6	
1,3,5-Trimethylbenzene	576	ug/L	50.0	10	05/22/24 02:59 108-67-8	
Vinyl acetate	ND	ug/L	500	10	05/22/24 02:59 108-05-4	
Vinyl chloride	ND	ug/L	20.0	10	05/22/24 02:59 75-01-4	
Xylene (Total)	9550	ug/L	1000	100	05/22/24 03:22 1330-20-7	
Surrogates		_				
Dibromofluoromethane (S)	94	%.	82-128	10	05/22/24 02:59 1868-53-7	
4-Bromofluorobenzene (S)	101	%.	79-124	10	05/22/24 02:59 460-00-4	
Toluene-d8 (S)	99	%.	73-122	10	05/22/24 02:59 2037-26-5	



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: TRIP BLANK	Lab ID: 503	73452012	Collected: 05/16/2	24 10:15	Received:	05/16/24 14:47	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260 MSV Indiana	Analytical Met	hod: EPA 50	030/8260					
	Pace Analytica	al Services -	Indianapolis					
Acetone	ND	ug/L	100	1		05/22/24 03:4	5 67-64-1	
Acrolein	ND	ug/L	50.0	1		05/22/24 03:4	5 107-02-8	
Acrylonitrile	ND	ug/L	100	1		05/22/24 03:4	5 107-13-1	
Benzene	ND	ug/L	5.0	1		05/22/24 03:4		
Bromobenzene	ND	ug/L	5.0	1		05/22/24 03:4	5 108-86-1	
Bromochloromethane	ND	ug/L	5.0	1		05/22/24 03:4		
Bromodichloromethane	ND	ug/L	5.0	1		05/22/24 03:4		
Bromoform	ND	ug/L	5.0	1		05/22/24 03:4		
Bromomethane	ND	ug/L	5.0	1		05/22/24 03:4		
P-Butanone (MEK)	ND	ug/L	25.0	1		05/22/24 03:4		
a-Butylbenzene	ND	ug/L	5.0	1		05/22/24 03:4		
ec-Butylbenzene	ND	ug/L	5.0	1		05/22/24 03:4		
ert-Butylbenzene	ND	ug/L	5.0	1		05/22/24 03:4		
Carbon disulfide	ND	ug/L	10.0	1		05/22/24 03:4		
Carbon tetrachloride	ND	ug/L	5.0	1		05/22/24 03:4		
Chlorobenzene	ND ND	ug/L ug/L	5.0	1		05/22/24 03:4		
Chloroethane	ND ND	ug/L ug/L	5.0	1		05/22/24 03:4		
Chloroform	ND ND	ug/L ug/L	5.0	1		05/22/24 03:4		
Chloromethane	ND ND	•	5.0	1		05/22/24 03:4		
		ug/L		1				
-Chlorotoluene	ND	ug/L	5.0			05/22/24 03:4		
-Chlorotoluene	ND	ug/L	5.0	1 1		05/22/24 03:4		
Dibromochloromethane	ND	ug/L	5.0			05/22/24 03:4		
,2-Dibromoethane (EDB)	ND	ug/L	5.0	1		05/22/24 03:4		
Dibromomethane	ND	ug/L	5.0	1		05/22/24 03:4		
I,2-Dichlorobenzene	ND	ug/L	5.0	1		05/22/24 03:4		
,3-Dichlorobenzene	ND	ug/L	5.0	1		05/22/24 03:4		
,4-Dichlorobenzene	ND	ug/L	5.0	1		05/22/24 03:4		
rans-1,4-Dichloro-2-butene	ND	ug/L	100	1		05/22/24 03:4		
Dichlorodifluoromethane	ND	ug/L	5.0	1		05/22/24 03:4		
,1-Dichloroethane	ND	ug/L	5.0	1		05/22/24 03:4		
,2-Dichloroethane	ND	ug/L	5.0	1		05/22/24 03:4		
,1-Dichloroethene	ND	ug/L	5.0	1		05/22/24 03:4		
is-1,2-Dichloroethene	ND	ug/L	5.0	1		05/22/24 03:4		
rans-1,2-Dichloroethene	ND	ug/L	5.0	1		05/22/24 03:4		
,2-Dichloropropane	ND	ug/L	5.0	1		05/22/24 03:4		
,3-Dichloropropane	ND	ug/L	5.0	1		05/22/24 03:4		
,2-Dichloropropane	ND	ug/L	5.0	1		05/22/24 03:4		
,1-Dichloropropene	ND	ug/L	5.0	1		05/22/24 03:4		
is-1,3-Dichloropropene	ND	ug/L	5.0	1			5 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/22/24 03:4	5 10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		05/22/24 03:4		
Ethyl methacrylate	ND	ug/L	100	1		05/22/24 03:4	5 97-63-2	
lexachloro-1,3-butadiene	ND	ug/L	5.0	1		05/22/24 03:4	5 87-68-3	
-Hexane	ND	ug/L	5.0	1		05/22/24 03:4	5 110-54-3	
2-Hexanone	ND	ug/L	25.0	1		05/22/24 03:4	5 591-78-6	
odomethane	ND	ug/L	10.0	1		05/22/24 03:4	5 74-88-4	



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Sample: TRIP BLANK	Lab ID: 5037	73452012	Collected: 05/16/2	4 10:15	Received: 05/16/24 14:47 Mat	rix: Water
Parameters	Results	Units	Report Limit	DF	Prepared Analyzed	CAS No. Qua
8260 MSV Indiana	Analytical Meth	od: EPA 50	030/8260			
	Pace Analytica	l Services -	Indianapolis			
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1	05/22/24 03:45 9	8-82-8
p-Isopropyltoluene	ND	ug/L	5.0	1	05/22/24 03:45 9	9-87-6
Methylene Chloride	ND	ug/L	5.0	1	05/22/24 03:45 7	5-09-2
1-Methylnaphthalene	ND	ug/L	10.0	1	05/22/24 03:45 9	0-12-0
2-Methylnaphthalene	ND	ug/L	10.0	1	05/22/24 03:45 9	1-57-6
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1	05/22/24 03:45 1	08-10-1
Methyl-tert-butyl ether	ND	ug/L	4.0	1	05/22/24 03:45 1	634-04-4
Naphthalene	ND	ug/L	1.2	1	05/22/24 03:45 9	1-20-3
n-Propylbenzene	ND	ug/L	5.0	1	05/22/24 03:45 1	03-65-1
Styrene	ND	ug/L	5.0	1	05/22/24 03:45 1	00-42-5
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1	05/22/24 03:45 6	30-20-6
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1	05/22/24 03:45 7	9-34-5
Tetrachloroethene	ND	ug/L	5.0	1	05/22/24 03:45 1	27-18-4
Toluene	ND	ug/L	5.0	1	05/22/24 03:45 1	08-88-3
1,2,3-Trichlorobenzene	ND	ug/L	5.0	1	05/22/24 03:45 8	7-61-6
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1	05/22/24 03:45 1	20-82-1
1,1,1-Trichloroethane	ND	ug/L	5.0	1	05/22/24 03:45 7	1-55-6
1,1,2-Trichloroethane	ND	ug/L	5.0	1	05/22/24 03:45 7	9-00-5
Trichloroethene	ND	ug/L	5.0	1	05/22/24 03:45 7	9-01-6
Trichlorofluoromethane	ND	ug/L	5.0	1	05/22/24 03:45 7	5-69-4
1,2,3-Trichloropropane	ND	ug/L	5.0	1	05/22/24 03:45 9	6-18-4
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1	05/22/24 03:45 9	5-63-6
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1	05/22/24 03:45 1	08-67-8
Vinyl acetate	ND	ug/L	50.0	1	05/22/24 03:45 1	08-05-4
Vinyl chloride	ND	ug/L	2.0	1	05/22/24 03:45 7	5-01-4
Xylene (Total)	ND	ug/L	10.0	1	05/22/24 03:45 1	
Surrogates		J				
Dibromofluoromethane (S)	98	%.	82-128	1	05/22/24 03:45 1	868-53-7
4-Bromofluorobenzene (S)	102	%.	79-124	1	05/22/24 03:45 4	60-00-4
Toluene-d8 (S)	97	%.	73-122	1	05/22/24 03:45 2	037-26-5



Project: Columbus Mobil

Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

QC Batch: 791195 Analysis Method: EPA 5030/8260
QC Batch Method: EPA 5030/8260 Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50373452001, 50373452002, 50373452003, 50373452004, 50373452005, 50373452006, 50373452007,

50373452008, 50373452009, 50373452010, 50373452011, 50373452012

METHOD BLANK: 3620396 Matrix: Water

Associated Lab Samples: 50373452001, 50373452002, 50373452003, 50373452004, 50373452005, 50373452006, 50373452007,

50373452008, 50373452009, 50373452010, 50373452011, 50373452012

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	05/21/24 21:10	
1,1,1-Trichloroethane	ug/L	ND	5.0	05/21/24 21:10	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	05/21/24 21:10	
1,1,2-Trichloroethane	ug/L	ND	5.0	05/21/24 21:10	
1,1-Dichloroethane	ug/L	ND	5.0	05/21/24 21:10	
1,1-Dichloroethene	ug/L	ND	5.0	05/21/24 21:10	
1,1-Dichloropropene	ug/L	ND	5.0	05/21/24 21:10	
1,2,3-Trichlorobenzene	ug/L	ND	5.0	05/21/24 21:10	
1,2,3-Trichloropropane	ug/L	ND	5.0	05/21/24 21:10	
1,2,4-Trichlorobenzene	ug/L	ND	5.0	05/21/24 21:10	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	05/21/24 21:10	
1,2-Dibromoethane (EDB)	ug/L	ND	5.0	05/21/24 21:10	
1,2-Dichlorobenzene	ug/L	ND	5.0	05/21/24 21:10	
1,2-Dichloroethane	ug/L	ND	5.0	05/21/24 21:10	
1,2-Dichloropropane	ug/L	ND	5.0	05/21/24 21:10	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	05/21/24 21:10	
1,3-Dichlorobenzene	ug/L	ND	5.0	05/21/24 21:10	
1,3-Dichloropropane	ug/L	ND	5.0	05/21/24 21:10	
1,4-Dichlorobenzene	ug/L	ND	5.0	05/21/24 21:10	
1-Methylnaphthalene	ug/L	ND	10.0	05/21/24 21:10	
2,2-Dichloropropane	ug/L	ND	5.0	05/21/24 21:10	
2-Butanone (MEK)	ug/L	ND	25.0	05/21/24 21:10	
2-Chlorotoluene	ug/L	ND	5.0	05/21/24 21:10	
2-Hexanone	ug/L	ND	25.0	05/21/24 21:10	
2-Methylnaphthalene	ug/L	ND	10.0	05/21/24 21:10	
4-Chlorotoluene	ug/L	ND	5.0	05/21/24 21:10	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	05/21/24 21:10	
Acetone	ug/L	ND	100	05/21/24 21:10	
Acrolein	ug/L	ND	50.0	05/21/24 21:10	
Acrylonitrile	ug/L	ND	100	05/21/24 21:10	
Benzene	ug/L	ND	5.0	05/21/24 21:10	
Bromobenzene	ug/L	ND	5.0	05/21/24 21:10	
Bromochloromethane	ug/L	ND	5.0	05/21/24 21:10	
Bromodichloromethane	ug/L	ND	5.0	05/21/24 21:10	
Bromoform	ug/L	ND	5.0	05/21/24 21:10	
Bromomethane	ug/L	ND	5.0	05/21/24 21:10	
Carbon disulfide	ug/L	ND	10.0	05/21/24 21:10	
Carbon tetrachloride	ug/L	ND	5.0	05/21/24 21:10	
Chlorobenzene	ug/L	ND	5.0	05/21/24 21:10	

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.



Project: Columbus Mobil
Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

METHOD BLANK: 3620396 Matrix: Water

Associated Lab Samples: 50373452001, 50373452002, 50373452003, 50373452004, 50373452005, 50373452006, 50373452007,

50373452008, 50373452009, 50373452010, 50373452011, 50373452012

3307010	52000, 5057 5 <del>4</del> 52000	Blank	Reporting	070102012	
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Chloroethane	ug/L	ND	5.0	05/21/24 21:10	
Chloroform	ug/L	ND	5.0	05/21/24 21:10	
Chloromethane	ug/L	ND	5.0	05/21/24 21:10	
cis-1,2-Dichloroethene	ug/L	ND	5.0	05/21/24 21:10	
cis-1,3-Dichloropropene	ug/L	ND	5.0	05/21/24 21:10	
Dibromochloromethane	ug/L	ND	5.0	05/21/24 21:10	
Dibromomethane	ug/L	ND	5.0	05/21/24 21:10	
Dichlorodifluoromethane	ug/L	ND	5.0	05/21/24 21:10	
Ethyl methacrylate	ug/L	ND	100	05/21/24 21:10	
Ethylbenzene	ug/L	ND	5.0	05/21/24 21:10	
Hexachloro-1,3-butadiene	ug/L	ND	5.0	05/21/24 21:10	
Iodomethane	ug/L	ND	10.0	05/21/24 21:10	
Isopropylbenzene (Cumene)	ug/L	ND	5.0	05/21/24 21:10	
Methyl-tert-butyl ether	ug/L	ND	4.0	05/21/24 21:10	
Methylene Chloride	ug/L	ND	5.0	05/21/24 21:10	
n-Butylbenzene	ug/L	ND	5.0	05/21/24 21:10	
n-Hexane	ug/L	ND	5.0	05/21/24 21:10	
n-Propylbenzene	ug/L	ND	5.0	05/21/24 21:10	
Naphthalene	ug/L	ND	1.2	05/21/24 21:10	
p-Isopropyltoluene	ug/L	ND	5.0	05/21/24 21:10	
sec-Butylbenzene	ug/L	ND	5.0	05/21/24 21:10	
Styrene	ug/L	ND	5.0	05/21/24 21:10	
tert-Butylbenzene	ug/L	ND	5.0	05/21/24 21:10	
Tetrachloroethene	ug/L	ND	5.0	05/21/24 21:10	
Toluene	ug/L	ND	5.0	05/21/24 21:10	
trans-1,2-Dichloroethene	ug/L	ND	5.0	05/21/24 21:10	
trans-1,3-Dichloropropene	ug/L	ND	5.0	05/21/24 21:10	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	05/21/24 21:10	
Trichloroethene	ug/L	ND	5.0	05/21/24 21:10	
Trichlorofluoromethane	ug/L	ND	5.0	05/21/24 21:10	
Vinyl acetate	ug/L	ND	50.0	05/21/24 21:10	
Vinyl chloride	ug/L	ND	2.0	05/21/24 21:10	
Xylene (Total)	ug/L	ND	10.0	05/21/24 21:10	
4-Bromofluorobenzene (S)	%.	100	79-124	05/21/24 21:10	
Dibromofluoromethane (S)	%.	96	82-128	05/21/24 21:10	
Toluene-d8 (S)	%.	97	73-122	05/21/24 21:10	

LABORATORY CONTROL SAMPLE:	3620397					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.4	97	81-130	_
1,1,1-Trichloroethane	ug/L	50	50.5	101	71-126	
1,1,2,2-Tetrachloroethane	ug/L	50	45.0	90	70-126	

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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LABORATORY CONTROL SAMPLE:	3620397					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,2-Trichloroethane	ug/L		45.9	92	79-125	
1,1-Dichloroethane	ug/L	50	50.2	100	79-120	
1,1-Dichloroethene	ug/L	50	48.8	98	71-130	
1,1-Dichloropropene	ug/L	50	52.9	106	78-144	
1,2,3-Trichlorobenzene	ug/L	50	46.7	93	57-146	
1,2,3-Trichloropropane	ug/L	50	43.6	87	74-127	
1,2,4-Trichlorobenzene	ug/L	50	45.6	91	62-136	
I,2,4-Trimethylbenzene	ug/L	50	50.4	101	69-120	
I,2-Dibromoethane (EDB)	ug/L	50	47.2	94	80-120	
1,2-Dichlorobenzene	ug/L	50	46.6	93	79-123	
,2-Dichloroethane	ug/L	50	45.1	90	72-123	
,2-Dichloropropane	ug/L	50	50.5	101	76-125	
,3,5-Trimethylbenzene	ug/L	50	50.7	101	71-120	
,3-Dichlorobenzene	ug/L	50	46.9	94	78-117	
I,3-Dichloropropane	ug/L	50	47.5	95	77-126	
I,4-Dichlorobenzene	ug/L	50	47.0	94	79-116	
I-Methylnaphthalene	ug/L	50	46.6	93	50-190	
2,2-Dichloropropane	ug/L	50	49.0	98	48-138	
2-Butanone (MEK)	ug/L	250	179	72	67-135	
2-Chlorotoluene	ug/L	50	50.0	100	75-122	
2-Hexanone	ug/L	250	201	80	65-135	
2-Methylnaphthalene	ug/L	50	46.4	93	55-184	
I-Chlorotoluene	ug/L	50	48.9	98	77-120	
I-Methyl-2-pentanone (MIBK)	ug/L	250	219	88	69-136	
Acetone	ug/L	250	155	62	34-156	
Acrolein	ug/L	1000	827	83	59-191	
Acrylonitrile	ug/L	250	224	89	67-146	
Benzene	ug/L	50	50.9	102	76-122	
Bromobenzene	ug/L	50	47.0	94	75-121	
Bromochloromethane	ug/L	50	47.2	94	73-119	
Bromodichloromethane	ug/L	50	49.5	99	80-126	
Bromoform	ug/L	50	45.8	92	77-124	
Bromomethane	ug/L	50	48.1	96	10-175	
Carbon disulfide	ug/L	50	46.5	93	69-121	
Carbon tetrachloride	ug/L	50	49.4	99	73-127	
Chlorobenzene	ug/L	50	48.4	97	76-118	
Chloroethane	ug/L	50	49.1	98	36-162	
Chloroform	ug/L	50	49.0	98	78-121	
Chloromethane	ug/L	50	45.6	91	37-143	
sis-1,2-Dichloroethene	ug/L	50	49.4	99	77-123	
sis-1,3-Dichloropropene	ug/L	50	52.1	104	76-132	
Dibromochloromethane	ug/L	50	46.5	93	79-130	
Dibromomethane	ug/L	50	45.9	92	79-124	
Dichlorodifluoromethane	ug/L	50	29.9	60	29-126	
Ethyl methacrylate	ug/L	50	49.4J	99	78-137	
Ethylbenzene	ug/L	50	51.5	103	76-120	
Hexachloro-1,3-butadiene	ug/L	50	47.1	94	60-131	

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ABORATORY CONTROL SAMPLE:	3620397					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
domethane	ug/L	50	50.5	101	10-148	
propylbenzene (Cumene)	ug/L	50	51.5	103	71-124	
thyl-tert-butyl ether	ug/L	50	45.1	90	71-121	
nylene Chloride	ug/L	50	48.8	98	71-121	
ıtylbenzene	ug/L	50	50.5	101	68-131	
exane	ug/L	50	46.6	93	51-126	
opylbenzene	ug/L	50	51.6	103	67-127	
hthalene	ug/L	50	47.3	95	62-143	
opropyltoluene	ug/L	50	50.8	102	72-124	
Butylbenzene	ug/L	50	52.0	104	71-126	
ene	ug/L	50	49.5	99	80-121	
Butylbenzene	ug/L	50	50.1	100	71-128	
chloroethene	ug/L	50	49.0	98	71-122	
ne	ug/L	50	48.8	98	74-118	
s-1,2-Dichloroethene	ug/L	50	50.0	100	75-122	
s-1,3-Dichloropropene	ug/L	50	50.4	101	77-126	
s-1,4-Dichloro-2-butene	ug/L	50	44.1J	88	53-136	
hloroethene	ug/L	50	50.2	100	74-125	
hlorofluoromethane	ug/L	50	42.7	85	64-138	
l acetate	ug/L	200	235	117	74-154	
chloride	ug/L	50	48.1	96	55-139	
ne (Total)	ug/L	150	147	98	73-119	
mofluorobenzene (S)	%.			100	79-124	
mofluoromethane (S)	%.			95	82-128	
ene-d8 (S)	%.			98	73-122	

MATRIX SPIKE & MATRIX SI	PIKE DUPL	ICATE: 3620	398 MS	MSD	3620399							
		50373452001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	50	50	36.8	44.5	74	89	47-139	19	20	
1,1,1-Trichloroethane	ug/L	ND	50	50	45.2	49.6	90	99	47-145	9	20	
1,1,2,2-Tetrachloroethane	ug/L	ND	50	50	39.3	45.8	79	92	49-133	15	20	
1,1,2-Trichloroethane	ug/L	ND	50	50	46.5	48.4	93	97	52-136	4	20	
1,1-Dichloroethane	ug/L	ND	50	50	47.1	50.6	94	101	52-137	7	20	
1,1-Dichloroethene	ug/L	ND	50	50	44.2	47.6	88	95	53-144	7	20	
1,1-Dichloropropene	ug/L	ND	50	50	41.6	47.9	83	96	49-150	14	20	
1,2,3-Trichlorobenzene	ug/L	ND	50	50	22.1	32.3	44	65	20-153	37	20	R1
1,2,3-Trichloropropane	ug/L	ND	50	50	38.4	44.0	77	88	47-134	14	20	
1,2,4-Trichlorobenzene	ug/L	ND	50	50	19.5	28.5	39	57	23-141	38	20	R1
1,2,4-Trimethylbenzene	ug/L	ND	50	50	21.2	33.1	42	66	41-131	44	20	R1
1,2-Dibromoethane (EDB)	ug/L	ND	50	50	41.7	46.3	83	93	55-133	10	20	
1,2-Dichlorobenzene	ug/L	ND	50	50	25.1	34.9	50	70	43-133	32	20	R1
1,2-Dichloroethane	ug/L	ND	50	50	42.9	46.1	86	92	50-138	7	20	
1,2-Dichloropropane	ug/L	ND	50	50	48.0	52.7	96	105	54-139	9	20	

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Pace Project No.: 50373452

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MATRIX SPIKE & MATRIX SF	PIKE DUPL	LICATE: 3620			3620399							
			MS	MSD					_			
Parameter	Units	50373452001 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qua
1,3,5-Trimethylbenzene	ug/L	ND	50	50	21.5	34.3	41	67	39-133	46		
1,3-Dichlorobenzene	ug/L	ND	50	50	22.3	32.7	44	65	41-131	38		
,3-Dichloropropane	ug/L ug/L	ND ND	50	50	42.4	46.8	85	94	50-136	10		KI
1,4-Dichlorobenzene	ug/L ug/L	ND ND	50	50	21.3	31.7	43	63	41-131	39		D1
-Methylnaphthalene	ug/L ug/L	47.3	50	50	63.0	81.3	31	68	10-188	25		R1
• •	_	47.3 ND	50	50	43.4	47.8	87	96	17-141	10		ΚI
2,2-Dichloropropane	ug/L					225		90				
2-Butanone (MEK)	ug/L	ND	250	250	211		84		45-138	6		D4
2-Chlorotoluene	ug/L	ND	50	50	24.6	36.5	49	73	36-141	39		K1
2-Hexanone	ug/L	ND	250	250	194	219	78	88	45-135	12		D4
2-Methylnaphthalene	ug/L	ND	50	50	27.5	37.5	51	70	10-197	31	20	
1-Chlorotoluene	ug/L	ND	50	50	21.9	34.9	44	70	38-134	46	-	R1
1-Methyl-2-pentanone MIBK)	ug/L	ND	250	250	223	238	89	95	46-138	7		
Acetone	ug/L	ND	250	250	329	338	132	135	25-151	3		
Acrolein	ug/L	ND	1000	1000	726	772	73	77	36-168	6		
Acrylonitrile	ug/L	ND	250	250	210	279	84	112	47-147	28		R1
Benzene	ug/L	12.9	50	50	55.6	61.6	85	98	53-138	10		
Bromobenzene	ug/L	ND	50	50	31.3	40.2	63	80	47-130	25		R1
Bromochloromethane	ug/L	ND	50	50	43.8	46.6	88	93	52-130	6	20	
Bromodichloromethane	ug/L	ND	50	50	48.9	52.4	98	105	50-146	7	20	
Bromoform	ug/L	ND	50	50	36.5	41.9	73	84	45-132	14	20	
Bromomethane	ug/L	ND	50	50	32.8	42.7	66	85	10-173	26	20	R1
Carbon disulfide	ug/L	ND	50	50	39.4	43.1	79	86	47-133	9	20	
Carbon tetrachloride	ug/L	ND	50	50	39.4	45.3	79	91	43-148	14	20	
Chlorobenzene	ug/L	ND	50	50	31.5	40.2	63	80	52-131	24	20	R1
Chloroethane	ug/L	ND	50	50	51.3	58.7	103	117	25-169	13	20	
Chloroform	ug/L	ND	50	50	48.9	52.6	98	105	54-138	7	20	
Chloromethane	ug/L	ND	50	50	38.5	42.2	77	84	33-137	9	20	
cis-1,2-Dichloroethene	ug/L	ND	50	50	43.0	47.0	86	94	50-141	9	20	
cis-1,3-Dichloropropene	ug/L	ND	50	50	41.0	46.4	82	93	47-135	12	20	
Dibromochloromethane	ug/L	ND	50	50	40.0	44.1	80	88	48-139	10	20	
Dibromomethane	ug/L	ND	50	50	42.3	46.1	85	92	51-141	9	20	
Dichlorodifluoromethane	ug/L	ND	50	50	28.6	30.1	57	60	15-130	5	20	
Ethyl methacrylate	ug/L	ND	50	50	49J	53.7J	98	107	51-142		20	
Ethylbenzene	ug/L	8.3	50	50	34.3	46.7	52	77	50-136	31		R1
Hexachloro-1,3-butadiene	ug/L	ND	50	50	8.9	20.2	18	40	15-141	78		R1
odomethane	ug/L	ND	50	50	36.7	43.6	73	87	10-145	17	-	
sopropylbenzene Cumene)	ug/L	39.7	50	50	45.5	64.9	12	50	46-137	35		M1, F
Methyl-tert-butyl ether	ug/L	ND	50	50	44.8	47.7	90	95	47-135	6	20	
Methylene Chloride	ug/L	ND	50	50	46.1	47.6	92	95	48-131	3		
n-Butylbenzene	ug/L	18.3	50	50	17.0	32.2	-3	28	30-138	62		M1, F
n-Hexane	ug/L	15.6	50	50	49.1	54.1	-3 67	77	35-137	10		
n-Propylbenzene	ug/L ug/L	92.8	50	50	58.8	90.4	-68	-5	37-135	42		M1, F
	_	25.2	50	50	50.9	63.6	-66 51	-5 77	34-152	22		R1
Naphthalene o-Isopropyltoluene	ug/L ug/L	25.2 ND	50 50	50	16.4	30.7	30	58	34-132 35-136	61		M1,F

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Pace Project No.: 50373452

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MATRIX SPIKE & MATRIX SP	IKE DUP	LICATE: 3620	398 MS	MSD	3620399							
		50373452001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
sec-Butylbenzene	ug/L	8.8	50	50	20.7	36.1	24	55	36-137	54	20	M1,R1
Styrene	ug/L	ND	50	50	29.8	39.1	60	78	46-136	27	20	R1
tert-Butylbenzene	ug/L	ND	50	50	21.0	34.1	42	68	40-137	48	20	R1
Tetrachloroethene	ug/L	ND	50	50	30.6	39.2	61	78	44-138	25	20	R1
Toluene	ug/L	ND	50	50	35.9	43.1	69	84	52-132	18	20	
trans-1,2-Dichloroethene	ug/L	ND	50	50	40.4	44.6	81	89	50-137	10	20	
trans-1,3-Dichloropropene	ug/L	ND	50	50	39.2	44.7	78	89	46-130	13	20	
trans-1,4-Dichloro-2-butene	ug/L	ND	50	50	36.5J	41.3J	73	83	24-134		20	
Trichloroethene	ug/L	ND	50	50	40.2	46.4	80	93	49-140	14	20	
Trichlorofluoromethane	ug/L	ND	50	50	39.4	42.1	79	84	44-153	6	20	
Vinyl acetate	ug/L	ND	200	200	190	205	95	102	32-142	8	20	
Vinyl chloride	ug/L	ND	50	50	44.5	47.3	89	95	41-147	6	20	
Xylene (Total)	ug/L	ND	150	150	87.6	120	54	75	44-138	31	20	RS
4-Bromofluorobenzene (S)	%.						105	104	79-124			
Dibromofluoromethane (S)	%.						99	99	82-128			
Toluene-d8 (S)	%.						98	98	73-122			

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.



#### **QUALIFIERS**

Project: Columbus Mobil Pace Project No.: 50373452

#### **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**

Date: 05/23/2024 03:52 PM

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

R1 RPD value was outside control limits.

RS The RPD value in one of the constituent analytes was outside the control limits.



## **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Columbus Mobil Pace Project No.: 50373452

Date: 05/23/2024 03:52 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
50373452001	MW-2	EPA 5030/8260	791195	_	
50373452002	MW-55R	EPA 5030/8260	791195		
50373452003	MW-7R	EPA 5030/8260	791195		
50373452004	MW-8	EPA 5030/8260	791195		
50373452005	MW-9	EPA 5030/8260	791195		
50373452006	MW-10	EPA 5030/8260	791195		
50373452007	MW-11	EPA 5030/8260	791195		
50373452008	MW-12	EPA 5030/8260	791195		
50373452009	MW-13	EPA 5030/8260	791195		
50373452010	MW-14	EPA 5030/8260	791195		
50373452011	DUP	EPA 5030/8260	791195		
50373452012	TRIP BLANK	EPA 5030/8260	791195		

Required Client Information:

Section B

Required Project Information:

Section A

# CHAIN-OF-CUSTODY / Analytical

The Chain-of-Custody is a LEGAL DOCUMENT. All Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions four

Invoice Information:

Section C

Attention:

WO#:50373452

	1111		

ompany: IWM Consulting	Report To:	Mand	y Hall					Atter	ntion:						_	,	303/3452									
ddress: 7428 Rockville Road	Сору То:							-		Name:																
dianapolis, IN 46214	D 1 . O .	"						Addr								_				100	2000	Reg	ulato	ry Agend	су	
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hone: (317)347-1111 Fax:	Project Name:		columbus	s Mobil						ct Mar	nagei	r: I	neath	er.pat	terso	on@	pacelabs.com,		200	and the same		Sta		Location	A STATE OF THE STA	
equested Due Date: Standard turn	Project #: IN17	/024						Pace	Prof	ile #:	_				100			1.0	1- 504	100	115	-		IN		
			_			-									800	-	Requested	Analys	is Filtere	ed (Y/I	N)					
MATRIX Drinking W Water Waste Wat Product Sample ID Soil/Soild	CODE ater DW WT er WW P SL	valid o	(G=GKAB C=COMP)		LECTED	END	COLLECTION		T	Pr	rese	rvativ	res		est Y/N		Yocs						(Y/N)			
Oil		_		START	-	IND	A	ERS							C)	0	_						i j			
One Character per box.  (A-Z, 0-9 /, -)  Sample lds must be unique  Wipe Air Other Tissue	AR OT TS	MATRIX CODE	SAMPLE I YPE	TE TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	HZSO4 HNO3	HCI	NaOH	Na2S203	Methanol	Analyses Test	G o i i	8360						Residual Chlorine (Y/N)			
1 MN-2					5/16	10:2	0	3			X				Ι	I	×							a	/	
2 MW-55R					1	10:25	-	3			1					1	k					Ш	-	0	Z	
3 MW-7R						11:20		3	-		3				1	1	x					Щ	-	2	5	
4 NW-8						11:03		3			1				1	2	x			Ш		Щ	-	a	8	
5 MW- 9						11:25		3		1	X	Ш	_	1	1	-	X					Н	-	0	25	
6/ MW-10		1				12:00		3	1	+	9	$\Box$	4	_	-	4	X					Н	-	00		
7 mw-11		4	_			12:10	$\vdash$	3	1	+	1	$\sqcup$	4	_	-	_	X					Н	-	a	7	
8 MW-12			_	_	$\perp$	11:40		3	_	+	X	$\sqcup$	4	+	4	1	7		-	Н		Н	-	20		
9 MW-13		_	_		1	11:00		3	4		7	$\sqcup$	_	+	-	4	ø		-	Н	_	Н	-	50	4	
10 MW-14		4	-		$\perp$	11:45		3	+	+	9	$\vdash$	-	_	-	2		_			_	Н	-	00		
11 Dup		4	_	_	Н,	-		3	-	+	4	$\vdash$	-	+	-	-	χ		-			Н	1	01	/	
12 Trip BLANK					W	10:15	NAME OF TAXABLE PARTY.	3		100	9					-	x		DATE	1 1000	TIME		CONTRACTOR OF THE PERSON NAMED IN	on	CONDITION	10
ADDITIONAL COMMENTS	RE	HINQL	JISHED B	Y / AFFILIAN	ON/	DATE			IME							STEE	ILIATION		STATE SELECT				0	AMPLE	ONDITION	
	Ku	un	19	Mit	8	5/16	2	41	4:0	12	4	Mi	18	She	ill	1/	PACE	5	16-24	14	147	6.0	0	Y	N	Y
				0		111																				
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										+						_		+		+		$\vdash$	+			
				SAMPLI	ER NAME	AND SIGN	NATU	JRE																uo		
						of SAMPI		6)	ew	ey	1 4	Wh	116	ç					,	,		P in C	1	elved (	Custody Sealed Cooler	ples
				SIG	NATURE	of SAMPL	ER	Tio	ne	,\$	2	1/6	tol	5			DATE Signed	5	15/	2	4	TEMP	1	Sec Nec	Seale	Sam



# SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining content	s: NM	Ś	05.16.2024 1740			
1. Courier: FED EX   UPS CLIENT PACE	□NOW/J	ETT	OTHER 5. Packing Material:	Bubbl	e Bags	
2. Custody Seal on Cooler/Box Present:     Yes	No.		None	I I Other		
(If yes)Seals intact:		were pres	ent) 6. Ice Type: Wet 🗆 Blue 🗀 None	;		
3. Thermometer: 1 2 3 4 5 6 7 8 A B C D	EFGH		7. Was the PM notified of out of temp cooler?:	I I Yes	□No	
4. Cooler Temperature(s): 6 . 4 / 6 . 4			Cooler temp should be above freezing to 6°C			
(Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECO	EIVED (use Cor	nments belo				
			If yes but not on COC what is the EZ Bottle Order Number?:			
Al	l discrepand	ies will b	e 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)		X	All containers needing acid/base preservation have been pH <a href="CHECKED">CHECKED</a> ?: Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCI.			
Short Hold Time Analysis (48 hours or less)? Analysis:		X	Circle: HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			X
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A K
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?	X		
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:		X	
COMMENTS:						

# Sample Container Count

\*\* Place a RED dot on containers

that are out of conformance \*\*

			MeOH (only)			1				AMB	ER G	LASS						PL	_AST	'IC					ОТН	HER			Nitric Red	Sulfuric	Sodium Hydroxide Green	Sodium Hydroxide/ ZnAc
COC	J.	WGKU BG1U	DI	резн УСЭН	VOA VIAL HS >6mm	D6 06	_ T6	2	<u>=</u>	⊇	<u>۾</u> ا	38	AG3SF	38	_	z	] <sub>2</sub>	<u>ي</u> ا	Z	<u>۳</u>	SS	38	32	3H	3F	agu	П	ž				
COC Line Item	WGFU	WG	R	DG		VG9U	VG9T	AGOU	AG1H	AG10	AG3U	AG3S	AG	AG3B	BP1U	BP1N	BP2U	вьзо	BP3N	BP3F	BP3S	BP3B	BP3Z	ССЗН	CG3F	Syringe Kit		ž	<2	H2SO4 <2	NaOH >10	NaOH/Zn Ac >9
1				3																							$\vdash$	M				
2																											$\vdash$	$\mathcal{H}$				
3																											$\vdash$	+				
4																											$\dashv$	$\mathcal{H}$				
5																											$\dashv$	+				
6																											$\dashv$	+				
7				-																							$\dashv$	+	_			
8	_			-																							$\dashv$	+	_			
9	$\dashv$			-																							-	H	-			
10	_																								7		-	H	$\dashv$			
11	-			-																							$\dashv$	H	$\dashv$			
12				ㅗ																								T				

## Container Codes

	Gla	ISS	
DG9H	40mL HCl amber voa vial	BG1T	glass
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass
DG9S	40mL H2SO4 amber vial	CG3U	250mL Unpres Clear Glass
DG9T	40mL Na Thio amber vial	AG0U	100mL unpres amber glass
DG9U	40mL unpreserved amber vial	AG1H	1L HCl amber glass
VG9H	40mL HCI clear vial	AG1S	1L H2SO4 amber glass
VG9T	40mL Na Thio. clear vial	AG1T	1L Na Thiosulfate amber glass
VG9U	40mL unpreserved clear vial	AG1U	1liter unpres amber glass
I	40mL w/hexane wipe vial	AG2N	500mL HNO3 amber glass
WGKL	8oz unpreserved clear jar	AG2S	500mL H2SO4 amber glass
WGFU	4oz clear soil jar	AG2U	500mL unpres amber glass
JGFU	4oz unpreserved amber wide	AG3S	250mL H2SO4 amber glass
CG3H	250mL clear glass HCI	AG3SF	250mL H2SO4 amb glass -field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3U	250mL unpres amber glass
BG1H	1L HCI clear glass	AG3B	250mL NaOH amber glass
BG1S	1L H2SO4 clear glass		

	Plastic									
BP1B	1L NaOH plastic	BP4U	125mL unpreserved plastic							
BP1N	1L HNO3 plastic	BP4N	125mL HNO3 plastic							
BP1S	1L H2SO4 plastic	BP4S	125mL H2SO4 plastic							
BP1U	1L unpreserved plastic		Miscellaneous							
BP1Z	1L NaOH, Zn, Ac		Miscellalieous							
BP2N	500mL HNO3 plastic	Syring	ge Kit LL Cr+6 sampling kit							
BP2C	500mL NaOH plastic	ZPLC	Ziploc Bag							
BP2S	500mL H2SO4 plastic	R	Terracore Kit							
BP2U	500mL unpreserved plastic	SP5T	120mL Coliform Sodium Thiosulfate							
BP2Z	500mL NaOH, Zn Ac	GN	General Container							
врзв	250mL NaOH plastic	U	Summa Can (air sample)							
BP3N	250mL HNO3 plastic	WT	Water							
BP3F	250mL HNO3 plastic-field filtered	SL	Solid							
BP3U	250mL unpreserved plastic	OL:	Oil							
BP3S	250mL H2SO4 plastic	NAL	Non-aqueous liquid							
BP3Z	250mL NaOH, ZnAc plastic	WP	Wipe							
BP3R	250mL Unpres. FF SO4/OH buffer									