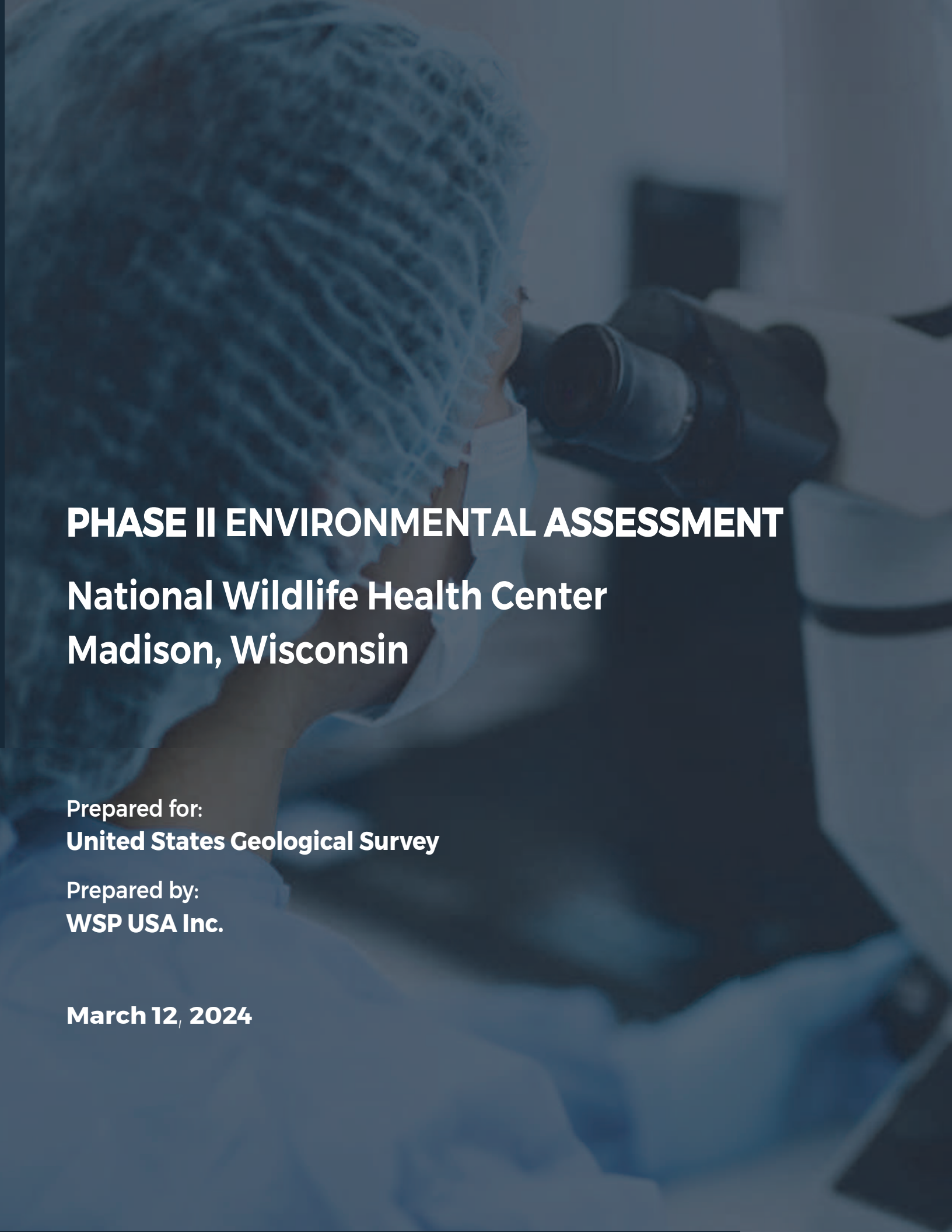
APPENDIX G
PHASE II SURVEY REPORT



PHASE II ENVIRONMENTAL ASSESSMENT

National Wildlife Health Center
Madison, Wisconsin

Prepared for:
United States Geological Survey

Prepared by:
WSP USA Inc.

March 12, 2024

PHASE II ENVIRONMENTAL ASSESSMENT

National Wildlife Health Center

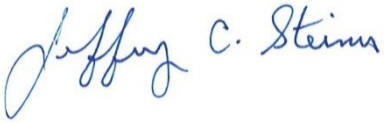
United States Geological Survey
National Wildlife Health Center
6006 Schroeder Road
Madison, Wisconsin 53703

MARCH 12, 2024

WSP
16 N. Carroll Street
Madison, Wisconsin 53703

NR 712 09 SUBMITTAL CERTIFICATION

I, Jeffrey Steiner, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."



Jeffrey C. Steiner, PG, PH, CPG

March 12, 2024

Date

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EXECUTIVE SUMMARY

A Phase II Environmental Assessment was conducted at the United States Geological Survey's National Wildlife Health Center in Madison, Wisconsin, to assess the potential for contamination in soil in accessible areas around the Main Building and TIB. The findings are to assist with soil management decisions prior to the start of construction of proposed new facilities.

Unconsolidated sediments at the NWHC site consist of thin topsoil and fill material at some locations (silty gravel and alluvium) overlying in-situ alluvial or ground moraine deposits to the depth of exploration at 10 feet. The alluvial and ground moraine deposits consist of interlayered sand, sandy gravel, sandy silt, sandy clay, silt, silty sand, silty gravel, silty clay, clayey sand, and low to high plasticity clay layers. Bedrock was not encountered in any of the soil borings advanced at the site during the Phase II Environmental Assessment.

Although groundwater level data was not collected during the Phase II Environmental Assessment, data from the Wisconsin Geological and Natural History Survey supports a groundwater depth at the NWHC site at approximately 90 feet below ground surface.

Laboratory results for soil samples collected at the site indicate low concentrations of metals were detected in all 10 samples submitted for analysis. Chromium and lead were detected in all 10 samples but were below NR 720 Wisconsin Administrative Code direct contact or protection of groundwater residual contaminant levels (RCLs). Mercury was detected in 5 of the 10 samples from soil boring locations SB-01, SB-05, SB-07, SB-08 and SB-09. All mercury detections were also below NR 720 Wisconsin Administrative Code direct contact or protection of groundwater RCLs.

Arsenic was detected in 6 of the 10 samples submitted for analysis at soil boring locations SB-01, SB-05, SB-07, SB-08, SB-09 and SB-10. All Arsenic detections at these locations exceed NR 720 Wisconsin Administrative Code direct contact RCL but were below the background threshold value for soils in Wisconsin. Barium was detected in all 10 samples submitted for analysis, but only 4 of the 10 samples from soil boring locations SB-05, SB-08, SB-09 and SB-10 contained concentrations of Barium that exceed NR 720 Wisconsin Administrative Code direct contact RCLs. All barium concentrations were below the background threshold value for this metal.

Laboratory results for polynuclear aromatic hydrocarbons (PAHs) indicate low concentrations in 4 of the 10 samples at soil boring locations SB-03, SB-04, SB-07 and SB-09 that do not exceed NR 720 Wisconsin Administrative Code direct contact residual contaminant levels.

Laboratory results for chlorinated pesticides and herbicides, VOCs, and PCBs are below laboratory method detection limit for all 10 samples submitted for analysis.

1 INTRODUCTION

The United States Geologic Survey (USGS) retained WSP to perform a Phase II Environmental Assessment at the National Wildlife Health Center (NWHC) located at 6006 Schroeder Road in Madison, Wisconsin. The primary objective of the Phase II Environmental Assessment was to evaluate soils for potential contamination in accessible areas around the existing buildings and proposed construction area to inform soil management during new construction. Additional objectives of the Phase II Assessment were to:

- Characterize the hydrogeologic and environmental conditions at the NWHC site.
- Characterize the nature of potential impacts to soil at the NWHC site.
- Evaluate the need to implement remedial action at the NWHC site during construction.

Environmental sampling and analysis performed at the NWHC in January 2024 are the subject of this report.

1.1 Site Address and Description

Address of Site: USGS National Wildlife Health Center
6006 Schroeder Road, Madison, Wisconsin 53711

The subject property is in the SE ¼ of the SE ¼ of Section 25, Town 7 North, Range 8 East, Dane County, Wisconsin, coordinates x: 43.048891, y: -89.485077 (Figure 1). According to Access Dane GIS Database, the NWHC facility and property (Parcel ID 070825400884) is southwest of US Highway 12 (Beltline Highway) and is situated between properties devoted to residential, commercial, and research/laboratory uses.

1.2 Client and Project Consultant

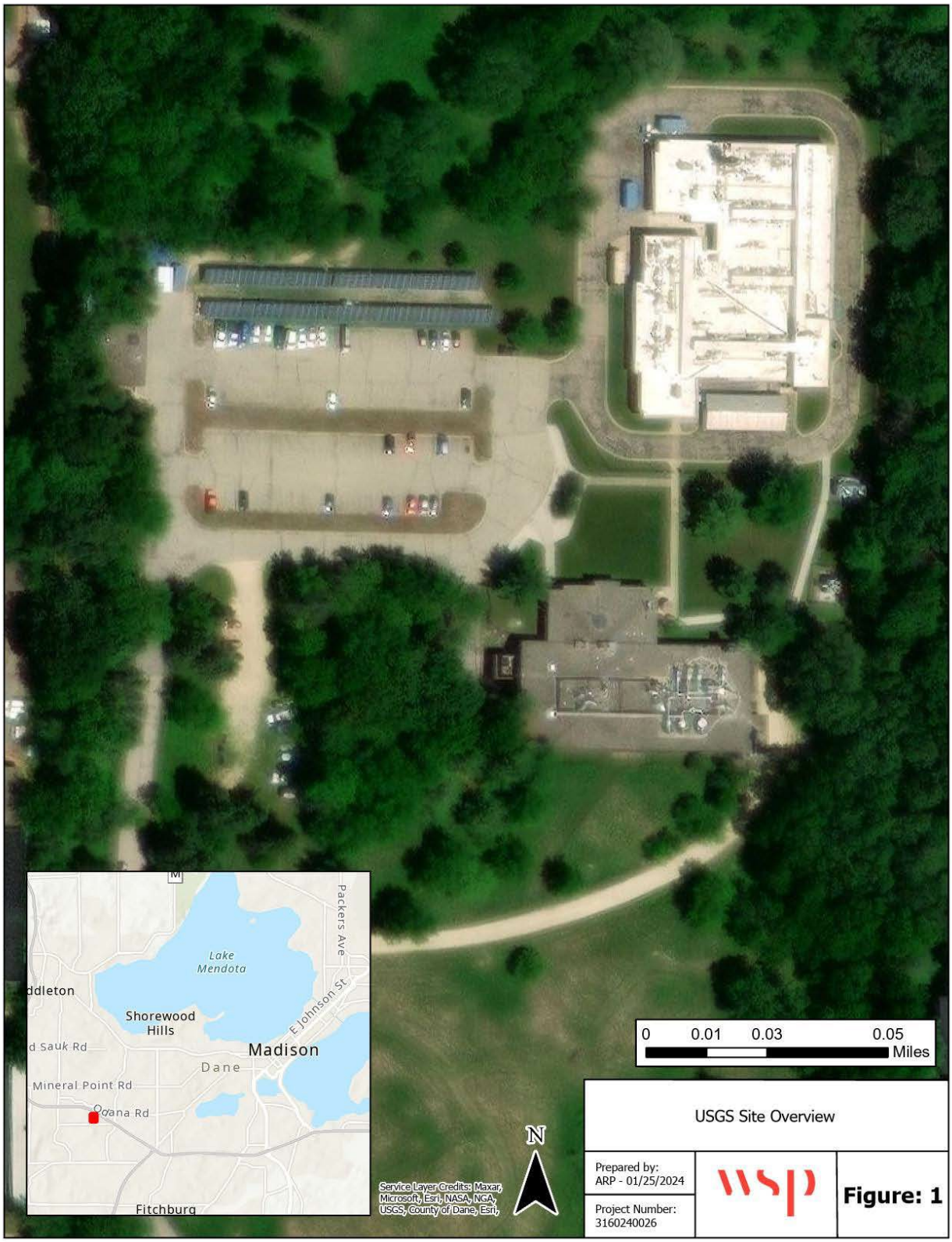
The project contacts for this site are as follows:

Client/Site Owner: USGS National Wildlife Health Center
6006 Schroeder Road, Madison, Wisconsin 53711

Contact: Michael Bonds, Safety & Environmental Coordinator
USGS National Wildlife Health Center
Tel: 608-270-2432 / Email: mbonds@usgs.gov

Consultant: WSP, 16 N. Carroll Street, Suite 700, Madison, Wisconsin 53703

Contact: Jeffrey C. Steiner, PG, PH, CPG
Tel: 608-572-3402 / Email: jeffrey.steiner@wsp.com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Packers Ave
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Shorewood
Hills
Madison
Dane
Mineral Point Rd
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Service Layer Credits: Maxar, Microsoft, Esri, NASA, NGA, USGS, County of Dane, Esri,
USGS Site Overview
Prepared by:
ARP - 01/25/2024
Project Number:
3160240026
Figure: 1

1.3 Project Background

The NWHC was established in 1975 to serve the nation and its natural resources by providing sound science and technical support regarding wildlife disease, and to disseminate information to promote science-based decisions affecting wildlife and ecosystem health. NWHC personnel study emerging and resurging diseases, wildlife and ecosystem health, zoonotic diseases, and environmental health and degradation.

Located on 24 acres of federal property at 6006 Schroeder Road in Madison, Wisconsin, the NWHC maintains administrative offices and highly secure research laboratories in the Main Building and the Tight Isolation Building (TIB). Since 2008, USGS has conducted multiple studies of the NWHC which identified conditions hampering efficient operations. The studies found that the mission and function of the NWHC, along with the interests of the USGS which oversees the NWHC, would be best served by replacing the NWHC with a new facility.

1.3.1 Aging Pipes and Blockages Have Impacted Main Building

To move forward with the proposed development of a new NWHC, USGS has undertaken various studies and investigations to ensure compliance with the National Environmental Policy Act, National Historic Preservation Act, Clean Water Act, Endangered Species Act, Clean Air Act, Farmland Protection Policy Act and other applicable state and federal laws, regulations, and Executive Orders. While performing those studies, concerns were raised on May 5, 2022, about underground wastewater piping blockages or degradation in the Main Building plumbing system between the diagnostic necropsy suite and the wastewater accumulation pit.

Chemicals commonly utilized by the necropsy laboratory are shown in Table 1. The necropsy laboratory routinely disposes of liquid chemical and biological wastes via the waste plumbing system. Although not a requirement, the wastewater is typically treated in a steam effluent decontamination system (EDS) or wastewater treatment system. However, on January 12, 2019, the EDS suffered damage due to frozen pipes. While the EDS was inoperable, liquid waste containing biological materials was treated with disinfectant for decontamination prior to release to the sanitary sewer system. The EDS was repaired in April 2022.

According to the Preliminary Risk Assessment of the necropsy drain leak (USGS, June 22, 2022), USGS does not know the precise date on which the NWHC plumbing system (circa 1979) was compromised. The blockages or degradation likely began and became more severe during the time USGS was unable to monitor the volume of liquid reaching the EDS tanks. Without a known date for the start of this problem, USGS used January 1, 2019, for calculation purposes. While evidence from piping surveys did not indicate this to be the case, USGS used a worst-case scenario under which 90% of the material sent down the drain was lost to the surrounding soil.

Table 1: Necropsy Chemical Inventory

Chemical Name	CAS#	Warning Signal Word	Dangerous Signal Word	Health (toxic)	Fire / Flammable	Explosive	Oxidizer	Corrosive	Carcinogen / Mutagen
Acetone	67-64-1	X	X		X				
Benzocaine ointment (Anbesol, Orasol, Orajel)	N/A	X							
Bleach, Sodium Hypochlorite, 5%	7681-52-9	X	X					X	
Citric Acid Monohydrate	5949-29-1	X							
Decalcifying Solution, Dilute HCl with EDTA	N/A	X	X					X	
Dry Ice (Carbon Dioxide, Solid)	124-38-9	X							
Ethanol (70%)	64-17-5	X	X		X				
Ethanol, absolute, 200 proof	64-17-5	X	X		X				
Ethylenediaminetetraacetic Acid, Disodium Salt, Dihydrate	6381-92-6								
Formalin (10% buffered)	N/A	X	X	X	X			X	X
Hexanes	110-54-3	X	X	X	X				
Karnovsky's	N/A	X	X	X					X
Methyl Alcohol (Methanol)	67-56-1	X	X		X				
Nitric Acid, 4-16%	7697-37-2	X	X	X				X	
Ovitrol Plus Flea, Tick & Bot Spray	8003-34-7	X	X	X	X				
Sodium Bicarbonate	144-55-8								
Spill-X-FP	N/A	X							
Tricaine-S (MS222)	886-86-2	X							
Unicide 256	N/A	X							
Vinegar, White Distilled	N/A	X							

Source: USGS, NWHC, 2022

1.4 Regional Geology and Hydrogeology

1.4.1 Geology

This preliminary evaluation of the site geology is based on existing published regional information[1], and site-specific data collected from geotechnical borings conducted by CGC, Inc. (CGC) in 2023. Subsurface information collected by CGC indicates that the unconsolidated sediments are comprised of ground moraine consisting primarily of interbedded sand, clay, silt, silty sand and clayey sand with scattered gravels and cobbles. Non-native fill materials consisting of gravel materials were encountered in some of the borings advanced at the site.

Regional information indicates that surficial unconsolidated deposits around Madison, Wisconsin consist primarily of alluvial deposits (organic materials and stratified clay, silt, and sand) and ground moraine deposits (glacial till). Based on available well logs and regional maps, the unconsolidated deposits in the site area are estimated to be 80 to 85 feet thick.

Depth to bedrock is estimated to be 80 to 85 feet below ground surface (bgs). The uppermost bedrock unit in the area of the site is the Prairie du Chein Group consisting of the Shakopee Formation and the Oneota Formation of Ordovician age. The Shakopee Formation and Oneota Formation are both primarily composed of dolomite.

1.4.2 Hydrogeology

Groundwater is the source for domestic, municipal, and industrial water supplies in the Madison area. Most Dane County's residents, businesses, industries, and farmers rely on 22 high-capacity wells from the deep sandstone aquifer for their water supply.[2]

Depth to groundwater below the site is approximately 90 feet bgs depending on ground surface elevation. Groundwater data from the Wisconsin Geological and Natural History Survey indicates flow at and around the NWHC site is variable. Groundwater flow north and west of the facility trends north to west towards Lake Mendota and Lake Monona. Groundwater flow south and east of the facility flow towards local depressions in the landscape.

[1] Mickelson, David, M. 1983. "A Guide to the Glacial Landscapes of Dane County." Wisconsin Geological and Natural History Survey, Field Trip Guidebook, Volume 6.

[2] https://www.cityofmadison.com/water/about/faq

2 SITE GEOLOGY AND HYDROGEOLOGY

2.1 Site Stratigraphy

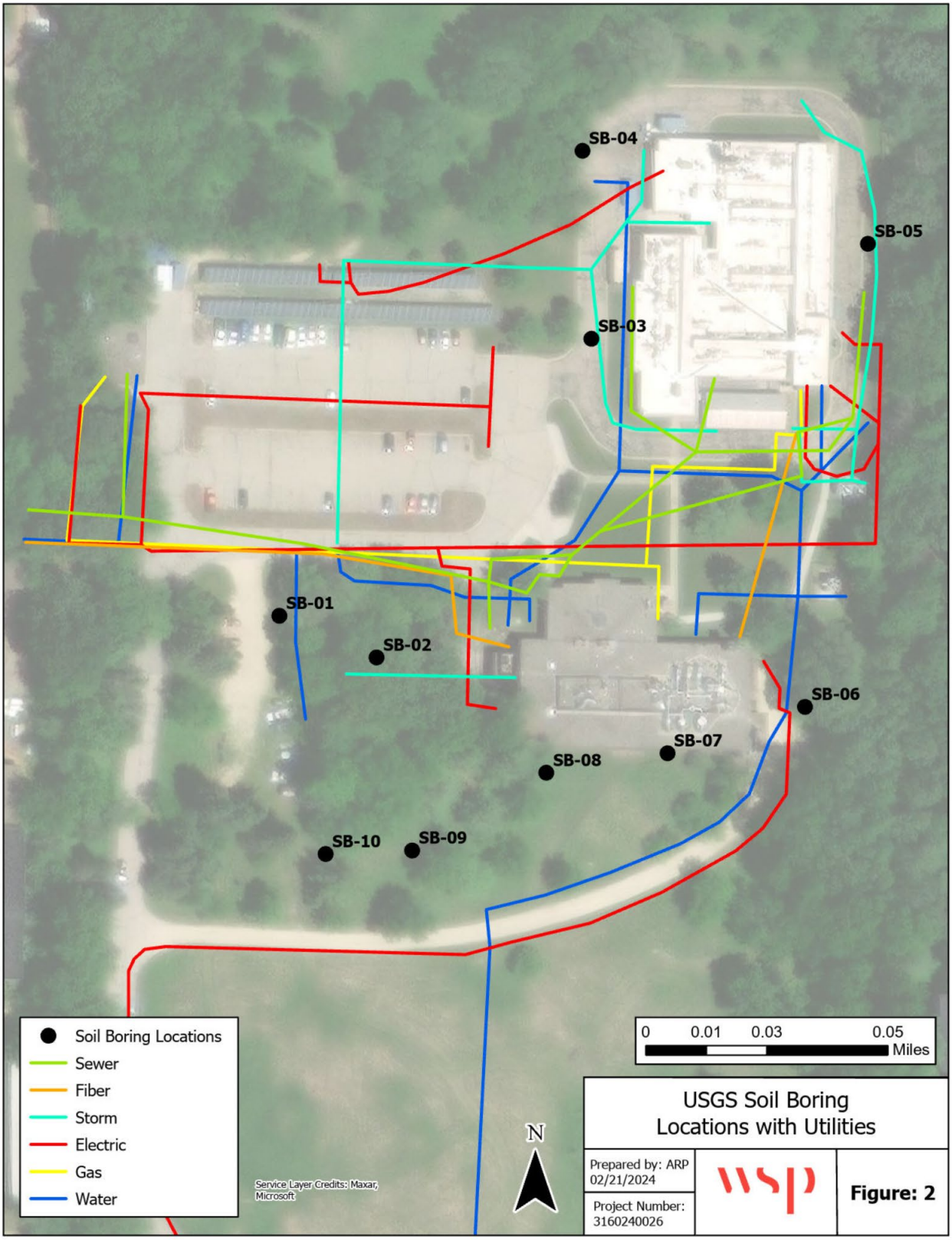
Subsurface conditions were evaluated based on information collected from ten soil borings advanced to a depth of ten feet bgs during the Phase II Assessment performed by WSP in January 2024. Additional information was obtained from 12 geotechnical soil borings advanced to 80 feet bgs by CGC for USGS between October 5 through October 17, 2023, and observations from six test pits performed by CGC on October 16, 2023. Locations of the probes are shown on Figure 2 and geologic boring logs are provided in Appendix A.

Subsurface information collected during the Phase II Environmental Assessment indicate that the unconsolidated sediments at the site are comprised of ground moraine consisting primarily of interbedded sand, clay, silt, silty sand and clayey sand. CGC describes sediments below 12 feet as primarily fine-to medium grained silty sand with occasional gravel and cobbles. Some non-native fill materials consisting of gravel materials were encountered at the surface in some of the borings advanced at the site.

Bedrock was not encountered in any of the soil borings advanced at the site. Depth to bedrock is estimated to be 80 to 90 feet bgs based on regional information. The uppermost bedrock unit below the site is the Prairie du Chein (dolomite) Formation of Ordovician age.

2.2 Groundwater Flow Conditions

Groundwater level data was not collected during the Phase II Environmental Assessment, although data from the Wisconsin Geological and Natural History Survey supports a groundwater depth at the NWHC site at about 90 feet bgs. Shallow, perched groundwater zones are present at some locations at the site, due to low permeability material near the surface based on test pits performed by CGC.


SB-04
SB-05
SB-03
SB-01
SB-02
SB-06
SB-07
SB-08
SB-10
SB-09
Soil Boring Locations
Sewer
Fiber
Storm
Electric
Gas
Water
Service Layer Credits: Maxar, Microsoft
0 0.01 0.03 0.05
Miles
N
USGS Soil Boring Locations with Utilities
Prepared by: ARP
02/21/2024
Project Number:
3160240026
wsp
Figure: 2

3 SOIL ANALYSIS

Soil samples collected from the 10 probes advanced during the Phase II Environmental Assessment were submitted to Pace Laboratories in Green Bay, Wisconsin for analysis. Selected samples were analyzed for volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), organochlorine pesticides, chlorinated herbicides, polychlorinated biphenyls (PCBs), and Resource Conservation and Recovery Act metals.

3.1 Field Observations and Screening Results

Headspace analysis was performed on each of the soil samples obtained from the probes. Headspace analysis is a screening tool used to qualitatively assess the degree of potential impacts to soil from volatile organic compounds. The headspace analysis was performed using a photoionization detector (PID) equipped with an 11.7 eV lamp. Headspace analysis results are shown on the boring logs in Appendix A.

PID readings were taken at one-foot intervals for all 10 soil borings (SB-01 through SB-10). PID readings for each interval at all locations ranged from 0 to 6.9 parts per million. Results of the headspace analysis do not indicate the potential presence of elevated levels of volatile organic constituents in the soil samples collected.

3.2 Results of Laboratory Analysis

Ten soil samples collected from the soil borings were submitted for analysis. Samples were analyzed for VOCs using EPA method 8260, and PAHs using EPA method 8270E by SIM. Pesticides and chlorinated herbicides were analyzed using EPA methods 8081B, and 8151A, respectively. PCBs were analyzed using EPA method 8082A, metals were analyzed using EPA methods 6010D and method 7471B (mercury). A summary of analyte detections in soil is presented in Table 2 and laboratory data reports for soil samples are provided in Appendix B.

3.2.1 Inorganic Analysis (Metals)

Low levels of arsenic were detected in 6 of the 10 samples submitted for metals analysis at concentrations exceeding NR 720 Wisconsin Administrative Code direct contact residual contaminant levels (RCLs). Arsenic concentrations in these samples ranged from 2 mg/Kg to 5.2 mg/Kg. However, each of the arsenic detections is within the range for naturally occurring background concentrations in soil throughout Wisconsin, and below the background threshold value of 8 mg/kg for arsenic.

Low levels of Barium were detected in all 10 samples submitted for metals analysis. Of the 10 samples, 4 were detected at concentrations exceeding NR 720 Wisconsin Administrative Code direct contact RCLs. Barium concentrations ranged from 16.9 mg/Kg to 154 mg/Kg. Each of the Barium detections is within the range for naturally occurring background concentrations in soil throughout Wisconsin, and below the background threshold value of 364 mg/kg for Barium.

Table 2: Summary of Soil Sample Analytical Laboratory Detections

Boring ID	SB-01	SB-02	SB-03	SB-04	SB-05	SB-06	SB-07	SB-08	SB-09	SB-10	NR 720 Wisconsin Adm. Code		
Sample Depth (ft bgs)	2 - 3	5 - 6	5 - 6	5 - 6	2 - 3	2 - 3	1 - 2	1 - 2	7 - 8	5 - 6			
Sample ID	SB-01-02-03	SB-02-05-06	SB-03-05-06	SB-04-05-06	SB-05-02-03	SB-06-02-03	SB-07-01-02	SB-08-01-02	SB-09-07-08	SB-10-05-06			
Sample Date and Time	01/17/2024 10:10	01/17/2024 10:40	01/17/2024 11:20	01/17/2024 11:45	01/17/2024 12:00	01/17/2024 12:40	01/17/2024 12:50	01/17/2024 13:05	01/17/2024 13:15	01/17/2024 13:45	Soil Standards (mg/Kg)		
Soil Type	Snad & Clay	Sand	Sand	Sand	Clay	Clay	Silt	Silt & Gravel	Clay	Sand	NR 720 DC RCL[1]		
Unsaturated/Saturated Condition	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat			
Analyte											**Non-Industrial**	**Industrial**	**GW RCL[2]**
Percent Moisture	11.1	5.2	8.1	10	16.5	6.2	11.6	10.6	15.9	20.7	*ns*	*ns*	*ns*
Percent Solids	84.3	94.3	93.5	89.7	85.1	94.6	86.9	85.4	85.7	80.9	*ns*	*ns*	*ns*
Metals					**Analytical Result (mg/Kg)**						**Non-Industrial**	**Industrial**	**GW RCL[2]**
Arsenic	**2 J**	<1.5	<1.5	<1.6	**5.2**	<1.4	**2.4 J**	**3.4**	**3**	**5.2**	*0.677 (B = 8)*	*3*	*0.292*
Barium	57.4	32.5	35.9	32.7	**90.3**	16.9	67.1	**82.9**	**154**	**90.4**	*15,300 (B = 364)*	*100,000*	*82.4*
Chromium	14.9	12.7	21.3	12.2	22.1	5.5	15.8	18.3	25.4	23.3	*ns (B = 44)*	*ns*	*180,000*
Lead	3.7	2.7	3.2	2.1 J	8.3	2.2	5.2	6.4	9.8	8.1	*400 (B = 52)*	*800*	*13.5*
Total Mercury	0.01 J	<0.01	<0.011	<0.01	0.031 J	<0.0096	0.011 J	0.021 J	0.021 J	<0.012	*3.13*	*3.13*	*0.104*
EPA 8081B					**Analytical Result (mg/Kg)**						**Non-Industrial**	**Industrial**	**GW RCL[2]**
4,4'-DDE	0.007 J	<0.00388	<0.00391	<0.00408	<0.0043	<0.00387	<0.00421	<0.00428	<0.00427	<0.00452	*2*	*9.38*	*ns*
EPA 8270E by SIM					**Analytical Result (mg/Kg)**						**Non-Industrial**	**Industrial**	**GW RCL[2]**
Anthracene	<0.0023	<0.0022	0.0033 J	<0.0023	<0.0025	<0.0022	0.0101 J	<0.0023	<0.0025	<0.0026	*17,900*	*100,000*	*98.475*
Benz[a]anthracene	<0.0024	<0.0023	0.0204	0.0055 J	<0.0026	<0.0023	0.0337	<0.0024	<0.0026	<0.0027	*1.14*	*20.8*	*ns*
Benzo[a]pyrene	<0.0021	<0.002	0.0371	0.0103 J	<0.0023	<0.002	0.0265	<0.0021	<0.0023	<0.0024	*0.115*	*2.11*	*0.235*
Benzo[b]fluoranthene	<0.0026	<0.0024	0.0726	0.0148 J	<0.0028	<0.0025	0.0337	<0.0026	0.0029 J	<0.0029	*1.15*	*21.1*	*0.239*
Benzo[g,h,i]perylene	<0.0033	<0.0031	0.071	0.0172 J	<0.0035	<0.0031	0.0159 J	<0.0033	<0.0035	<0.0037	*ns*	*ns*	*ns*
Benzo[k]fluoranthene	<0.0024	<0.0022	0.0359	0.0076 J	<0.0026	<0.0023	0.017 J	<0.0024	<0.0025	<0.0027	*11.5*	*211*	*ns*
Chrysene	<0.0035	<0.0033	0.0457	0.0082 J	<0.0038	<0.0034	0.0361	<0.0035	<0.0037	<0.004	*115*	*2,110*	*0.072*
Dibenz[a,h]anthracene	<0.0026	<0.0024	0.0108 J	<0.0026	<0.0028	<0.0025	0.0054 J	<0.0026	<0.0028	<0.0029	*0.115*	*2.11*	*ns*
Fluoranthene	<0.0022	<0.0021	0.0612	0.0082 J	<0.0024	<0.0021	0.0667	<0.0022	0.0037 J	<0.0025	*2,390*	*30,100*	*44.439*
Indeno[1,2,3-cd]pyrene	<0.0039	<0.0037	0.0525	0.0126 J	<0.0042	<0.0037	0.0151 J	<0.0039	<0.0041	<0.0044	*1.15*	*21.1*	*ns*
Naphthalene	<0.0018	<0.0017	0.0031 J	<0.0018	<0.0019	<0.0017	<0.0018	<0.0018	<0.0019	<0.002	*5.52*	*24.1*	*0.329*
Phenanthrene	<0.0022	<0.002	0.0245	<0.0021	<0.0023	<0.002	0.0276	<0.0021	<0.0023	<0.0024	*ns*	*ns*	*ns*
Pyrene	<0.0028	<0.0026	0.0556	0.0081 J	<0.0029	<0.0026	0.0481	<0.0027	<0.0029	<0.0031	*1,790*	*26,000*	*27.273*

Bold Concentration exceeds NR 720 Wisconsin Administrative Code Residual Contaminant Level (RCL) for *industrial* direct contact.
Bold Concentration exceeds NR 720 Wisconsin Administrative Code Residual Contaminant Level (RCL) for *non-industrial* direct contact.
Bold Concentration exceeds NR 720 Wisconsin Administrative Code Protection of Groundwater *Residual Contaminant Level* (RCL).
B = Background Threshold Value (mg/Kg)
ns No standard established.
-- Not Analyzed
<Gray Concentration less than laboratory method detection limit.
mg/Kg Concentration reported as milligrams per kilogram, equivalent to parts per million (ppm).
[1]NR 720 Wisconsin Administrative Code Residual Contaminant Level (RCL).
[2]NR 720 Wisconsin Administrative Code Residual Contaminant Level (RCL) for protection of groundwater.
[3]Table includes summary of VOC analysis, see lab data sheets for complete list of analytes.

Prepared by: KMC
Checked by: ARP
Approved by: JCS

Low levels of Chromium and Lead were detected in all 10 samples, but detections do not exceed NR 720 Wisconsin Administrative Code direct contact RCLs. Low levels of mercury were also detected in 5 of the 10 samples submitted for metals analysis; however, detections do not exceed NR 720 Wisconsin Administrative Code direct contact RCLs.

3.2.2 Polycyclic Aromatic Hydrocarbon Analysis (PAH)

Each of the 10 soil samples were also analyzed for polycyclic aromatic hydrocarbon compounds (PAHs). Trace concentrations of PAH were detected in 4 of the 10 samples analyzed; however, none of the 10 samples exceeded NR 720 Wisconsin Administrative Code direct contact or protection of groundwater RCLs.

3.2.3 Volatile Organic Compound Analysis

Each of the 10 soil samples collected were analyzed for VOCs which showed concentrations below laboratory method detection limits.

3.2.4 Chlorinated Pesticides and Herbicides

Each of the 10 soil samples collected were analyzed for chlorinated pesticides and herbicides. Concentrations of chlorinated pesticides and herbicides were below laboratory method detection limits.

3.2.5 Polychlorinated Biphenyls

Each of the 10 soil samples collected were analyzed for PCBs. Concentrations of PCBs were below laboratory method detection limits in each of the 10 samples.

4 SUMMARY OF FINDINGS

4.1 Geology and Hydrogeology

- Unconsolidated sediments at the site consist of topsoil and fill material overlying alluvial or ground moraine deposits to the depth of exploration at 10 feet. Fill material consisted of reworked alluvial deposits or silty, angular fine to medium grain, gravel with some fine grain sand. The alluvial and ground moraine deposits consist of interlayered sand, sandy gravel, sandy silt, sandy clay, silt, silty sand, silty gravel, silty clay, clayey sand, and low to high plasticity clay layers.

- Bedrock was not encountered in any of the soil borings advanced at the site. The Prairie du Chein Group, consisting of the Shakopee Formation and the Oneota Formation, underly the NWHC site. Depth to bedrock is estimated to be 80 to 85 feet bgs, based on regional information.

- Groundwater elevation data obtained from the Wisconsin Geological and Natural History Survey indicate that depth to groundwater is about 90 feet bgs. Groundwater flow north and west the NWHC site trends north to west towards Lake Mendota and Lake Monona. Groundwater flow south and east of the site is more variable but flows towards local depressions in the landscape.

4.2 Soil Assessment

4.2.1 Inorganic Analysis (Metals)

- Arsenic was detected at concentrations exceeding NR 720 Wisconsin Administrative Code direct contact RCLs in 6 of the 10 samples submitted for analysis. Arsenic concentrations ranged from 2 mg/Kg to 5.2 mg/Kg and did not exceed background threshold value of 8 mg/Kg for Arsenic.

- Barium was detected at low concentrations in all 10 samples submitted for analysis. Barium was detected at concentrations exceeding NR 720 Wisconsin Administrative Code direct contact RCLs in 4 of the 10 samples submitted for analysis. Barium concentrations ranged from 16.9 mg/Kg to 154 mg/Kg and did not exceed background threshold value of 364 mg/Kg for Barium.

- Chromium and lead were detected at low concentrations in all 10 samples submitted for analysis, however, concentrations do not exceed NR 720 Wisconsin Administrative Code direct contact RCLs.

- Mercury was detected at low concentrations in 5 of the 10 samples submitted for analysis, however, concentrations do not exceed NR 720 Wisconsin Administrative Code direct contact residual contaminant levels.

4.2.2 Volatile Organic Compound Analysis

- Each of the 10 soil samples collected were analyzed for VOCs. Concentrations of VOCs were below laboratory method detection limits in each sample.

4.2.3 Polycyclic Aromatic Hydrocarbon Analysis (Pah)

- PAHs were detected at low concentrations in 4 of the 10 samples submitted for analysis; concentrations do not exceed NR 720 Wisconsin Administrative Code direct contact RCLs.

4.2.4 Chlorinated Pesticides and Herbicides

- Chlorinated pesticide and herbicide concentrations were below laboratory method detection limits for all 10 samples submitted for analysis.

4.2.5 Polychlorinated Biphenyls

- PCB concentrations were below laboratory method detection limits for all 10 samples submitted for analysis.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

- Results for soil samples collected and analyzed during this assessment do not warrant remediation or trigger regulatory reporting.
- Results of soil sample analyses do not preclude off-site management of soil or warrant special safety concerns for soil management during construction.
- Construction personnel should be aware of other areas during construction that were not assessed. Excavated materials should be monitored for the presence of:
    - Potentially hazardous waste.
    - Buried objects including white goods, tires, railroad ties, drums, etc.
    - Areas of visible ash, coal, or cinders.
    - Detectable organic vapors as identified by photoionization detector screening.
    - Strong or unusual odors.
    - Unusual soil discoloration not previously noted.

5.2 Recommendations

Miscellaneous regulated materials may be generated or found in conjunction with the overall construction project. Examples of such regulated materials would be demolition debris, wood, metal, underground tanks, utility lines, concrete foundations, and asphalt or concrete from the removal of parking areas, sidewalks, and buildings. These materials may be generated during construction or found within the excavated soil or fill material during construction.

- The construction contractor should load and transport miscellaneous materials off-site to approved construction and demolition disposal facilities for recycling or permanent disposal.
- A materials management plan should be prepared and included in construction plans.

6 REFERENCES

- Brown, B. A., Massie-Ferch, K., and Peters, R. M. (2013). Preliminary bedrock geology of Dane County, Wisconsin [Map]. Wisconsin Geological and Natural History Survey.
- CGC, Inc. 2024. Geotechnical Exploration Report, USGS National Wildlife Health Center, City of Madison, Wisconsin.
- Mickelson, David, M. 1983. “A Guide to the Glacial Landscapes of Dane County.” Wisconsin Geological and Natural History Survey, Field Trip Guidebook Volume 6.
- National Wildlife Health Center. 2022. Preliminary Risk Assessment Necropsy Drain Leak. USGS.
- Parsen, M.J., Bradbury, K.R., Hunt, R.J., and Feinstein, D.T. 2016. The 2016 Groundwater Flow Model for Dane County, Wisconsin: Wisconsin Geological and Natural History Survey Bulletin 110, 56 p.
- Wisconsin Geological and Natural History Survey. 1999. Plate 1: Water table Elevation and Unlithified Aquifers in Dane County, Wisconsin [Map].

Appendix A:

Geologic Logs

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 7-98

Route to:
Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment X ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Numbe		Boring Number
USGS Soil Boring			**SB-01**

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Gage Last Name: Kapugi Firm: **OES**	**1/17/2024** M/D/Y	**1/17/2024** M/D/Y	**Geoprobe** **2" hollow core sampler**

WI Unique Well No.	DNR Well Id No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Dia.
_ _ _ _ _ _ _				**320.83 m**	**2-inch**

Local Grid Origin [(estimated: ☐) or Boring Location ☒	Lat. 43.048891	Local Grid Location (If applicable)
State Plane 286381.816206 N, 561937.717599 E **SE 1/4 of SE 1/4, of Section 25, T 7 N, R 8 E**	---------- Long -89.485077	☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W

Facility Id.	County	County Code	Civil Town/City/or Village
	Dane	**13**	**Madison, WI**

SAMPLE Number and Type	SAMPLE Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID (ppm)	SOIL PROPERTIES: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	Comments
SB-01-02-03 @1010	4'/5'		0 1 2 3 4 5	SAND, some fine grained sub-angular to angular gravel, trace silt and clay, dry, dense, 10YR 5/4 yellowish brown	SP			0.7		D				
				CLAY, trace fine grained sand, moist, very stiff, cohesive, high plasticity, 10YR 4/3 Dark yellowish brown, mottlin @21" some find grained sand, trace fine grained gravel, grayish brown	CH			0.6		M				
				SAND, some clay, fine to medium grained sand, little fine grained gravel, moist, dense, 10YR 4/4 dark yellowish brown	SC			0.7		M				
				CLAY, trace fine grained sand, little silt, moist, stiff, cohesive, low to medium plasticity, 10YR 3/1 very dark gray	CL			0.4		M				
				12" of loss, no recovery 48"-60"										
	4'/5'		5 6 7 8 9 10	CLAY, some silt, little fine grained sand, little fine angular gravel, moist, soft, cohesive, low to medium plasticity, 10YR 3/2 very dark grayish brown	CL			0.6		M				
								0.3						
				@ 69" trace silt, stiff, 10YR 3/3 dark brown				0.6						
				@ 90" weathered rock fragments, 10YR 3/4 dark yellowish brown				0.5						
				12" of loss, no recovery 108"-120"										
				EOB @ 10 feet below ground surface Borehole abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Firm WSP

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 7-98

Route to:
Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment X ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Numbe		Boring Number
USGS Soil Boring			**SB-02**
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Gage Last Name: Kapugi Firm: **OES**	Date Drilling Started **1/17/2024** M/D/Y	Date Drilling Completed **1/17/2024** M/D/Y	Drilling Method **2" hollow core sampler**
WI Unique Well No. _ _ _ _ _ _	DNR Well Id No.	Well Name	Final Static Water Level
Surface Elevation **321.37 m**	Borehole Dia. **2-inch**		
Local Grid Origin (estimated: ☐) or Boring Location ☒ State Plane 286371.837659 N, 561957.557968 E **SE 1/4 of SE 1/4, of Section 25, T 7 N, R 8 E**	Lat. 43.048890 ---------- Long -89.484834	Local Grid Location (If applicable) ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	
Facility Id.	County **Dane**	County Code **13**	Civil Town/City/or Village **Madison, WI**

SAMPLE Number and Type	SAMPLE Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID (ppm)	SOIL PROPERTIES: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
			-	SILT, some poorly graded fine grain sand, few medium grain sand, few clay, moist, med. Stiff, cohesive, med. Plasticity, 10YR 2/2 very dark brown	ML			0.5		M				
			-1	SAND, well graded sand, some medium subangular to subrounded gravel, few silt, few clay, moist, medium dense, 10YR 3/2 very dark grayish brown, roots present	SW			0.5		M				
			-2	40" of loss, no recovery 20"-60"										
	<2'/5'		-3											
			-4											
SB-02-05-06 @10 40			-5											
			-	SAND, well graded sand, some medium subangular to subrounded gravel, few silt, few clay, dry, medium dense, 10YR 6/3 pale brown	SW			0.5		D				
			-6					0.5						
			-7	40" of loss, no recovery 80"-120"										
	<2'/5'		-8											
			-9											
			-10											
				EOB @ 10 feet below ground surface Borehole abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Anakin Paterson Firm: WSP

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 7-98

Route to:
Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment X ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Numbe		Boring Number
USGS Soil Boring			**SB-03**
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Gage Last Name: Kapugi Firm: **OES**	Date Drilling Started **1/17/2024** M/D/Y	Date Drilling Completed **1/17/2024** M/D/Y	Drilling Method **2" hollow core sampler**
WI Unique Well No. _ _ _ _ _ _ _	DNR Well Id No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Dia. **2-inch**
Local Grid Origin (estimated: ☐) or Boring Location ☒ State Plane 286449.433738 N, 562010.257538 E **SE 1/4 of SE 1/4, of Section 25, T 7 N, R 8 E**	Lat. 43.049586 ---------- Long -89.484181	Local Grid Location (If applicable) ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	
Facility Id.	County **Dane**	County Code **13**	Civil Town/City/or Village **Madison, WI**		

SAMPLE Number and Type	SAMPLE Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID (ppm)	SOIL PROPERTIES: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
			-	SAND, well graded sand, some silt, few-some subangular gravels, trace clay, moist, med. Dense	SM			0.8		M				
			-1	SAND, poorly graded medium grain sand, some fine grain sand, trace silt, trace clay, moist, loose	SP									
			-					0.4		M				
			-2											
	5'/5'		-					0.4						
			-3	SAND, poorly graded medium grain sand, some fine grain sand, some clay, trace subrounded fine-med gravels, moist, dense	SC					M				
			-	CLAY, few-some poorly graded fine grain sand in clay, moist, very stiff, cohesive, medium plasticity, 39"-40", 45" and 49" weather rock areas	CL			0.4		M				
			-4											
			-					0.6						
SB-03-05-06 @11			-5	SAND, poorly graded medium grain sand, some fine grain sand, some clay, trace subrounded fine-med gravel, moist, medium dense										
			-					0.1		M				
			-6		SC									
			-					0.4						
			-7											
			-	SAND, poorly graded medium grain sand, few fine grain sand, trace subrounded fine-med gravel, few silt, trace clay, moist, loose				0.5						
	5'/5'		-8											
			-	@96" few-some clay	SP			0.4						
			-							M				
			-9											
			-					0.3						
			-10											
				EOB @ 10 feet below ground surface Borehole abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Arabella Patterson Firm WSP

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 7-98

Route to:
Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment X ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
USGS Soil Boring		**SB-04**

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Gage Last Name: Kapugi Firm: **OES**	**1/17/2024** M/D/Y	**1/17/2024** M/D/Y	**2" hollow core sampler**

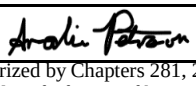
WI Unique Well No.	DNR Well Id No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Dia.
_ _ _ _ _ _ _					**2-inch**

Local Grid Origin (estimated: ☐) or Boring Location ☒	Lat. 43.049996	Local Grid Location (If applicable)
State Plane 286494.986122 N, 562006.879319 E **SE 1/4 of SE 1/4, of Section 25, T 7 N, R 8 E**	---------- Long -89.484219	☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W

Facility Id.	County	County Code	Civil Town/City/or Village
	Dane	**13**	**Madison, WI**

SAMPLE Number and Type	SAMPLE Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	SOIL PROPERTIES PID/FID (ppm)	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
			0	CLAY, some silt, trace-few fine-med grain sand, moist, med stiff, cohesive, high plasticity, 10YR 3/2 very dark grayish brown	CH			0.2		M				
			1	SAND, well graded sand, some silt, few fine-medium subangular gravel, trace clay, moist, dense, 10YR 3/4 dark yellowish brown	SM			0.6		M				
	3'/5'		2	SAND, poorly graded VF-fine grain sand, few medium grain sand, few silt, moist, loose, 10YR 5/3 brown	SP			0.5		M				
			3											
			4	23.5" of loss, 36.5"-60" no recovery										
			5											
SB-04-05-06 @11			6	SAND, poorly graded VF-fine grain sand, few medium grain sand, few silt, moist, loose, 10YR 5/3 brown, lenses of poorly graded medium s	SP			0.6		M				
	<4'/5'		7	SAND, well graded sand, some clay, few silt, some coarse subanguler to angular gravels, moist, very dense @64" 2.5YR red iron staining/concentrations	SC			0.3 0.5		M				
			8	@96" well graded med-coarse grain sand, few fine grain sand, some fine-coarse sunangular to angular gravels				0.5						
			9	16" of loss, 104"-120" no recovery										
			10											
				EOB @ 10 feet below ground surface Borehole abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm WSP

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 7-98

Route to:
Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment X ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Numbe		Boring Number
USGS Soil Boring			**SB-05**
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Gage Last Name: Kapugi Firm: **OES**	Date Drilling Started **1/17/2024** M/D/Y	Date Drilling Completed **1/17/2024** M/D/Y	Drilling Method **2" hollow core sampler**
WI Unique Well No. _ _ _ _ _ _ / DNR Well Id No. / Well Name	Final Static Water Level	Surface Elevation **323.41 m**	Borehole Dia. **2-inch**
Local Grid Origin (estimated: ☐) or Boring Location ☒ State Plane 286472.872863 N, 562077.220466 E **SE 1/4 of SE 1/4, of Section 25, T 7 N, R 8 E**	Lat. 43.04979301 ---------- Long -89.48335721	Local Grid Location (If applicable) ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	
Facility Id.	County **Dane**	County Code **13**	Civil Town/City/or Village **Madison, WI**

SAMPLE Number and Type	SAMPLE Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID (ppm)	SOIL PROPERTIES: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
SB-05-02-03 @12	3.75'/5'		-1 -2 -3 -4 -5	SILT, some VF sand, few-some clay, moist, cohesive, med. Plasticity, 10YR 3/2 very dark greyish brown CLAY, Some VF sand, few medium sand, few-some silt, moist, cohesive, medium plasticity, 10YR 3/3 dark brown @24"-27" medium sand @ 36" some subrounded fine gravels 15.5" loss no recovery from 44.5"-60"	ML CL			0.3 0.6 0.6 0.4		M M				
	4.5'/5'		-6 -7 -8 -9 -10	CLAY, Some VF sand, some medium sand, few-some silt, moist, cohesive,medium plasticity, 10YR 4/3 brown @60"-97" lenses of medium sand and angular fine-coarse gravels 7.5" loss	CL			0.6 0.3 0.5 0.4 0.4		M				
				EOB @ 10 feet below ground surface Borehole abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Firm WSP

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 7-98

Route to:
Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment X ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Numbe		Boring Number
USGS Soil Boring			**SB-06**
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Gage Last Name: Kapugi Firm: **OES**	Date Drilling Started **1/17/2024** M/D/Y	Date Drilling Completed **1/17/2024** M/D/Y	Drilling Method **2" hollow core sampler**
WI Unique Well No. _ _ _ _ _ _ _	DNR Well Id No.	Well Name	Final Static Water Level
Surface Elevation **323.76 m**	Borehole Dia. **2-inch**		
Local Grid Origin (estimated: ☐) or Boring Location ☒ State Plane 286358.906526 N, 562060.054377 E **SE 1/4 of SE 1/4, of Section 25, T 7 N, R 8 E**	Lat. 43.048768 ---------- Long -89.483577	Local Grid Location (If applicable) ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	
Facility Id.	County **Dane**	County Code **13**	Civil Town/City/or Village **Madison, WI**

SAMPLE Number and Type	SAMPLE Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID (ppm)	SOIL PROPERTIES: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
			-	SAND, well graded sand, some fine-coarse subangular-angular, some silt, dry, very dense, 10YR 5/4 yellowish brown, gravel parking lot	SM			0.1		D				
			-1											
			-					0.1						
			-	SAND, poorly graded medium sand, few clay, some silt, some fine subangular gravel, moist, dense, 10YR 4/4 dark yellowish brown										
SB-06-02-03 @12	4'/5'		-2	@41" some clay	SP			0.3		M				
			-											
			-3					0.2						
			-											
			-4											
			-	12" loss no recovery from 48"-60"										
			-5											
			-	SAND, poorly graded medium sand, some silt, some fine, subangular gravel, moist, dense, 10YR 4/4 dark yellowish brown				0.2						
			-6											
			-	@78" redox features				0.2		M				
			-											
			-	@83" some clay, very dense										
			-7											
	4.8'/5'		-	@93" 10YR 4/2 dark grayish brown	SP			0.2						
			-											
			-8											
			-					0.2						
			-											
			-9											
			-					0.2						
			-											
			-10	2" loss										
			-	EOB @ 10 feet below ground surface Borehole abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Arabella Peterson Firm WSP

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 7-98

Route to:
Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment X ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
USGS Soil Boring		**SB-07**

Boring Drilled By: Name of crew chief (first,last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Gage Last Name: Kapugi Firm: **OES**	**1/17/2024** M/D/Y	**1/17/2024** M/D/Y	**2" hollow core sampler**

WI Unique Well No.	DNR Well Id No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Dia.
_ _ _ _ _ _ _				**321.78 m**	**2-inch**

Local Grid Origin (estimated: ☐) or Boring Location ☒	Lat. 43.048681	Local Grid Location (If applicable)
State Plane 286349.046132 N, 562028.456187 E **SE 1/4 of SE 1/4, of Section 25, T 7 N, R 8 E**	---------- Long -89.483965	☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W

Facility Id.	County	County Code	Civil Town/City/or Village
	Dane	**13**	**Madison, WI**

SAMPLE Number and Type	SAMPLE Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID (ppm)	SOIL PROPERTIES: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
SB-07-01-02 @12			0	SILT, trace to few VF grain sand, few clay, moist, cohesive, low plasticity, 10YR 2/1 very dark brown, topsoil, roots present	ML			0.7		M				
			1	SAND, poorly graded medium grain sand, some clay, few silt, trace fine subrounded gravels, moist, medium dense, 10YR 4/4 dark yellowish brown				0.5						
	3.5'/5'		2	@26" trace coarse subround gravels	SC			0.1		M				
			3					0						
			4	17" of loss, no recovery from 43" to 60"										
			5											
			6	SAND, well graded sand, some silt, few angular fine gravel, trace clay, moist, med. Dense, 10YR 3/4 dark yelowish brown	SM			0.1		M				
			7	CLAY, some VF grain sand, few fine-med. Grain sand, trace fine subround gravels, moist, cohesive, low to med plasticity, 10YR 4/4 dark, yellowish brown and 10YR 4/1 dark gray, redox features	CL			0.3		M				
	3.5'/5'		8	SAND, poorly graded medium grain sand, trace to few clay, moist, loose, 10YR 5/6 yellowish brown	SP			0.2		M				
			9	@96" few clay				0						
			10	17" of loss, no recovery from 103"-120"										
				EOB @ 10 feet below ground surface Borehole abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Anakin Peterson Firm: WSP

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 7-98

Route to:
Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment X ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Numbe		Boring Number
USGS Soil Boring			**SB-08**
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Gage Last Name: Kapugi Firm: **OES**	Date Drilling Started **1/17/2024** M/D/Y	Date Drilling Completed **1/17/2024** M/D/Y	Drilling Method **2" hollow core sampler**
WI Unique Well No. _ _ _ _ _ _ _	DNR Well Id No.	Well Name	Final Static Water Level
Surface Elevation **321.04 m**	Borehole Dia. **2-inch**		
Local Grid Origin (estimated: ☐) or Boring Location ☒ State Plane 286344.154566 N, 561999.003907 E **SE 1/4 of SE 1/4, of Section 25, T 7 N, R 8 E**	Lat. 43.048638 ---------- Long -89.484327	Local Grid Location (If applicable) ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	
Facility Id.	County **Dane**	County Code **13**	Civil Town/City/or Village **Madison, WI**

SAMPLE Number and Type	SAMPLE Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID (ppm)	SOIL PROPERTIES: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
SB-08-01-02 @13			-	SILT, some well graded sand, moist, soft, cohesive, not plastic, dark brown	ML			6.9		M				
			-1	GRAVEL, fine gravel, some fine grain sand, few silt, moist, yellow brown	GM					M				
			-	SAND, well graded sand, some silt, trace clay, trace subangular coarse, gravel, moist, dark yellowish brown	SM			2.2		M				
			-2	43" of loss, no recovery 17"-60"										
	1.5'/5'		-											
			-3											
			-											
			-4											
			-											
			-5											
			-	SAND, well graded sand, some silt, trace clay, trace subangular coarse, gravel, moist, dark yellowish brown	SM			1.8		M				
			-6	SAND, well graded sand, few to some silt, some clay, moist, brown	SC			1.8		M				
			-											
			-7	SAND, poorly graded fine grain sand, trace fine angular gravel, trace silt, moist, dark yellowish brown	SP			2.2		M				
	3'/5'		-											
			-8											
			-	24" of loss, no recovery 96"-120"										
			-											
			-9											
			-											
			-											
			-10											
				EOB @ 10 feet below ground surface Borehole abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Amalia Paterson Firm: WSP

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis.Stats. Completion of this report is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conductu involved. Personally indentifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 7-98

Route to:
Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment X ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Numbe		Boring Number
USGS Soil Boring			**SB-09**
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Gage Last Name: Kapugi Firm: **OES**	Date Drilling Started **1/17/2024** M/D/Y	Date Drilling Completed **1/17/2024** M/D/Y	Drilling Method **2" hollow core sampler**
WI Unique Well No. _ _ _ _ _ _ _	DNR Well Id No.	Well Name	Final Static Water Level
Surface Elevation **320.35 m**	Borehole Dia. **2-inch**		
Local Grid Origin (estimated: ☐) or Boring Location ☒ State Plane 286325.078832 N, 561966.50455 E **SE 1/4 of SE 1/4, of Section 25, T 7 N, R 8 E**	Lat. 43.048468 ---------- Long -89.484728	Local Grid Location (If applicable) ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	
Facility Id.	County **Dane**	County Code **13**	Civil Town/City/or Village **Madison, WI**

SAMPLE Number and Type	SAMPLE Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	PID/FID (ppm)	SOIL PROPERTIES: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
			-	SILT, trace VF grain sand, trace subangular fine gravel, few clay, moist, soft, cohesive, low plasticity, 10YR 2/1 very dark brown	ML			0		M				
	4'/5'		-1	CLAY, trace subangular medium gravel, trace medium grain sand, few silt, moist, medium stiff, cohesive, medium to high plasticity, 10YR 4/3 dark yellowish brown	CL			0.1						
			-2	@22"-47" 10YR 3/4 dark yellowish brown				0		M				
			-3					0.1						
			-4	@47" 10YR 4/2 dark greyish brown										
			-5	12" of loss, no recovery 48"-60"										
SB-09-07-08 @13	3'/5'		-6	CLAY, trace subangular medium gravel, Some medium grain sand, moist, medium stiff, cohesive, no plasticity, 10YR 4/3 dark yellowish brown	CL			1		M				
			-7					0						
			-8					0						
			-9	24" of loss, no recovery 96"-120"										
			-10											
				EOB @ 10 feet below ground surface Borehole abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Amalia Paterson Firm: WSP

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION
Form 4400-122 7-98

Route to:
Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment X ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Numbe		Boring Number
USGS Soil Boring			**SB-10**
Boring Drilled By: Name of crew chief (first,last) and Firm First Name: Gage Last Name: Kapugi Firm: **OES**	Date Drilling Started **1/17/2024** M/D/Y	Date Drilling Completed **1/17/2024** M/D/Y	Drilling Method **2" hollow core sampler**
WI Unique Well No. DNR Well Id No. Well Name _ _ _ _ _ _ _ _ _ _	Final Static Water Level	Surface Elevation **320.35 m**	Borehole Dia. **2-inch**
Local Grid Origin (estimated: ☐) or Boring Location ☒ State Plane 286324.11248 N, 561945.476695 E **SE 1/4 of SE 1/4, of Section 25, T 7 N, R 8 E**	Lat. 43.048468 ---------- Long -89.484728	Local Grid Location (If applicable) ☐ N ☐ E _____ Feet ☐ S _____ Feet ☐ W	
Facility Id.	County **Dane**	County Code **13**	Civil Town/City/or Village **Madison, WI**

SAMPLE Number and Type	SAMPLE Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	SOIL/ROCK DESCRIPTION AND GEOLOGIC ORIGIN FOR EACH MAJOR UNIT	USCS	Graphic Log	Well Diagram	SOIL PROPERTIES PID/FID (ppm)	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
	4'/5'		-1	CLAY, some poorly graded fine grain sand, few fine to medium subround to subangular gravel, moist, cohesive, low plasticity, 10YR 3/2 very dark grayish brown, some bentonite from previous boring efforts vissible	CL			0		M				
			-2					0.1						
			-3	SAND, poorly graded fine grain sand, few silt, few clay, dense, moist, 10YR 4/6 dark yelowish brown	SP			0		M				
			-4	CLAY, some poorly graded medium sand 34"-37", few subangular medium gravels, moist, very stiff, cohesive, high plasticity, 10YR 4/3 Brown, redox features	CL			0.1		M				
			-5	14" of loss, no recovery 46"-60"										
SB-10-05-06	2.5'/5'		-6	SAND, some silt, poorly graded fine to medium grain sand, moist, medium dense, 10YR 4/4 dark yellowish brown	SM			1		M				
			-7	SILT, some clay, moist, soft, cohesive, high plasticity, 10YR 4/4 dark yellowish brown	MH			0		M				
			-8	31" of loss, no recovery 89"-120"				0						
			-9											
			-10	EOB @ 10 feet below ground surface Borehole abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Firm WSP

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Appendix B:

Laboratory Analytical Reports for Soil Samples

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

February 02, 2024

Karina Casey
WSP
16 North Carroll Street
Suite 700
Madison, WI 53703

RE: Project: 3160240026 USGS
Pace Project No.: 40273365

Dear Karina Casey:

Enclosed are the analytical results for sample(s) received by the laboratory on January 22, 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 National - Mt. Juliet
- Pace Analytical Services - Green Bay

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

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Jeffrey Steiner, WSP

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 3160240026 USGS
Pace Project No.: 40273365

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-21-8
Virginia VELAP Certification ID: 11873
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-21-00008
Federal Fish & Wildlife Permit #: 51774A

Pace Analytical Services National
12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Mold Certification #: LAB0152
Texas Certification #: T 104704245-17-14
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 3160240026 USGS
Pace Project No.: 40273365

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40273365001	**SB-01-02-03**	Solid	01/17/24 10:10	01/22/24 15:20
40273365002	**SB-02-05-06**	Solid	01/17/24 10:40	01/22/24 15:20
40273365003	**SB-03-05-06**	Solid	01/17/24 11:20	01/22/24 15:20
40273365004	**SB-04-05-06**	Solid	01/17/24 11:45	01/22/24 15:20
40273365005	**SB-05-02-03**	Solid	01/17/24 12:00	01/22/24 15:20
40273365006	**SB-06-02-03**	Solid	01/17/24 12:40	01/22/24 15:20
40273365007	**SB-07-07-01-02**	Solid	01/17/24 12:50	01/22/24 15:20
40273365008	**SB-08-01-02**	Solid	01/17/24 13:05	01/22/24 15:20
40273365009	**SB-09-07-08**	Solid	01/17/24 13:15	01/22/24 15:20
40273365010	**SB-10-05-06**	Solid	01/17/24 13:45	01/22/24 15:20
40273365011	**MEOH BLANK**	Solid	01/17/24 00:00	01/22/24 15:20

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 3160240026 USGS
Pace Project No.: 40273365

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40273365001	**SB-01-02-03**	EPA 8081B	LTB	25	PAN
		EPA 8151A	RDH	11	PAN
		EPA 8082A	BLM	10	PASI-G
		EPA 6010D	SIS	7	PASI-G
		EPA 7471	RZA	1	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	CXJ	64	PASI-G
		ASTM D2974-87	NMK	1	PASI-G
		SM 2540G	CMK	1	PAN
40273365002	**SB-02-05-06**	EPA 8081B	LTB	25	PAN
		EPA 8151A	RDH	11	PAN
		EPA 8082A	BLM	10	PASI-G
		EPA 6010D	SIS	7	PASI-G
		EPA 7471	RZA	1	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	CXJ	64	PASI-G
		ASTM D2974-87	NMK	1	PASI-G
		SM 2540G	CMK	1	PAN
40273365003	**SB-03-05-06**	EPA 8081B	LTB	25	PAN
		EPA 8151A	RDH	11	PAN
		EPA 8082A	BLM	10	PASI-G
		EPA 6010D	SIS	7	PASI-G
		EPA 7471	RZA	1	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	CXJ	64	PASI-G
		ASTM D2974-87	NMK	1	PASI-G
		SM 2540G	CMK	1	PAN
40273365004	**SB-04-05-06**	EPA 8081B	LTB	25	PAN
		EPA 8151A	RDH	11	PAN
		EPA 8082A	BLM	10	PASI-G
		EPA 6010D	SIS	7	PASI-G
		EPA 7471	RZA	1	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	CXJ	64	PASI-G
		ASTM D2974-87	NMK	1	PASI-G
		SM 2540G	CMK	1	PAN
40273365005	**SB-05-02-03**	EPA 8081B	LTB	25	PAN

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 3160240026 USGS
Pace Project No.: 40273365

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8151A	LJD	11	PAN
		EPA 8082A	BLM	10	PASI-G
		EPA 6010D	SIS	7	PASI-G
		EPA 7471	RZA	1	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	CXJ	64	PASI-G
		ASTM D2974-87	NMK	1	PASI-G
		SM 2540G	CMK	1	PAN
40273365006	**SB-06-02-03**	EPA 8081B	LTB	25	PAN
		EPA 8151A	LJD	11	PAN
		EPA 8082A	BLM	10	PASI-G
		EPA 6010D	SIS	7	PASI-G
		EPA 7471	RZA	1	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	CXJ	64	PASI-G
		ASTM D2974-87	NMK	1	PASI-G
		SM 2540G	CMK	1	PAN
40273365007	**SB-07-07-01-02**	EPA 8081B	LTB	25	PAN
		EPA 8151A	LJD	11	PAN
		EPA 8082A	BLM	10	PASI-G
		EPA 6010D	SIS	7	PASI-G
		EPA 7471	RZA	1	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	CXJ	64	PASI-G
		ASTM D2974-87	NMK	1	PASI-G
		SM 2540G	CMK	1	PAN
40273365008	**SB-08-01-02**	EPA 8081B	LTB	25	PAN
		EPA 8151A	LJD	11	PAN
		EPA 8082A	BLM	10	PASI-G
		EPA 6010D	SIS	7	PASI-G
		EPA 7471	RZA	1	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	CXJ	64	PASI-G
		ASTM D2974-87	NMK	1	PASI-G
		SM 2540G	CMK	1	PAN
40273365009	**SB-09-07-08**	EPA 8081B	LTB	25	PAN
		EPA 8151A	LJD	11	PAN

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 3160240026 USGS
Pace Project No.: 40273365

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8082A	BLM	10	PASI-G
		EPA 6010D	SIS	7	PASI-G
		EPA 7471	RZA	1	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	CXJ	64	PASI-G
		ASTM D2974-87	NMK	1	PASI-G
		SM 2540G	CMK	1	PAN
40273365010	**SB-10-05-06**	EPA 8081B	LTB	25	PAN
		EPA 8151A	LJD	11	PAN
		EPA 8082A	BLM	10	PASI-G
		EPA 6010D	SIS	7	PASI-G
		EPA 7471	RZA	1	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	CXJ	64	PASI-G
		ASTM D2974-87	NMK	1	PASI-G
		SM 2540G	CMK	1	PAN
40273365011	**MEOH BLANK**	EPA 8260	CXJ	64	PASI-G

PAN = Pace National - Mt. Juliet
PASI-G = Pace Analytical Services - Green Bay

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-01-02-03 **Lab ID: 40273365001** Collected: 01/17/24 10:10 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Pesticides (GC) 8081B	Analytical Method: EPA 8081B Preparation Method: 3546/3665A Pace National - Mt. Juliet								
Aldrin	**<0.00446**	mg/kg	0.0148	0.00446	1	01/28/24 16:09	01/28/24 23:53	309-00-2	
alpha-BHC	**<0.00436**	mg/kg	0.0146	0.00436	1	01/28/24 16:09	01/28/24 23:53	319-84-6	
beta-BHC	**<0.00450**	mg/kg	0.0149	0.00450	1	01/28/24 16:09	01/28/24 23:53	319-85-7	
delta-BHC	**<0.00410**	mg/kg	0.0136	0.00410	1	01/28/24 16:09	01/28/24 23:53	319-86-8	
gamma-BHC (Lindane)	**<0.00408**	mg/kg	0.0136	0.00408	1	01/28/24 16:09	01/28/24 23:53	58-89-9	
Chlordane (Technical)	**<0.122**	mg/kg	0.407	0.122	1	01/28/24 16:09	01/28/24 23:53	57-74-9	
alpha-Chlordane	**<0.00167**	mg/kg	0.00557	0.00167	1	01/28/24 16:09	01/28/24 23:53	5103-71-9	
gamma-Chlordane	**<0.00232**	mg/kg	0.00775	0.00232	1	01/28/24 16:09	01/28/24 23:53	5103-74-2	
4,4'-DDD	**<0.00439**	mg/kg	0.0146	0.00439	1	01/28/24 16:09	01/28/24 23:53	72-54-8	
4,4'-DDE	**0.00664J**	mg/kg	0.0145	0.00434	1	01/28/24 16:09	01/28/24 23:53	72-55-9	J
4,4'-DDT	**<0.00744**	mg/kg	0.0248	0.00744	1	01/28/24 16:09	01/28/24 23:53	50-29-3	
Dieldrin	**<0.00408**	mg/kg	0.0136	0.00408	1	01/28/24 16:09	01/28/24 23:53	60-57-1	
Endosulfan I	**<0.00431**	mg/kg	0.0144	0.00431	1	01/28/24 16:09	01/28/24 23:53	959-98-8	
Endosulfan II	**<0.00397**	mg/kg	0.0133	0.00397	1	01/28/24 16:09	01/28/24 23:53	33213-65-9	
Endosulfan sulfate	**<0.00432**	mg/kg	0.0144	0.00432	1	01/28/24 16:09	01/28/24 23:53	1031-07-8	
Endrin	**<0.00415**	mg/kg	0.0139	0.00415	1	01/28/24 16:09	01/28/24 23:53	72-20-8	
Endrin aldehyde	**<0.00402**	mg/kg	0.0134	0.00402	1	01/28/24 16:09	01/28/24 23:53	7421-93-4	
Endrin ketone	**<0.00843**	mg/kg	0.0281	0.00843	1	01/28/24 16:09	01/28/24 23:53	53494-70-5	
Hexachlorobenzene	**<0.00410**	mg/kg	0.0136	0.00410	1	01/28/24 16:09	01/28/24 23:53	118-74-1	
Heptachlor	**<0.00508**	mg/kg	0.0170	0.00508	1	01/28/24 16:09	01/28/24 23:53	76-44-8	
Heptachlor epoxide	**<0.00402**	mg/kg	0.0134	0.00402	1	01/28/24 16:09	01/28/24 23:53	1024-57-3	
Methoxychlor	**<0.00574**	mg/kg	0.0191	0.00574	1	01/28/24 16:09	01/28/24 23:53	72-43-5	
Toxaphene	**<0.147**	mg/kg	0.490	0.147	1	01/28/24 16:09	01/28/24 23:53	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	78.4	%	10.0-135		1	01/28/24 16:09	01/28/24 23:53	2051-24-3	
Tetrachloro-m-xylene (S)	79.6	%	10.0-139		1	01/28/24 16:09	01/28/24 23:53	877-09-8	
Chlorinated Herb. (GC) 8151A	Analytical Method: EPA 8151A Preparation Method: 8151A Pace National - Mt. Juliet								
2,4-D	**<0.00833**	mg/kg	0.0278	0.00833	1	01/27/24 03:31	01/31/24 02:16	94-75-7	L0
Dalapon	**<0.0134**	mg/kg	0.0447	0.0134	1	01/27/24 03:31	01/31/24 02:16	127-20-8	
2,4-DB	**<0.0352**	mg/kg	0.117	0.0352	1	01/27/24 03:31	01/31/24 02:16	94-82-6	
Dicamba	**<0.0186**	mg/kg	0.0620	0.0186	1	01/27/24 03:31	01/31/24 02:16	1918-00-9	
Dichlorprop	**<0.0291**	mg/kg	0.0969	0.0291	1	01/27/24 03:31	01/31/24 02:16	120-36-5	
Dinoseb	**<0.00827**	mg/kg	0.0275	0.00827	1	01/27/24 03:31	01/31/24 02:16	88-85-7	
MCPA	**<0.525**	mg/kg	1.76	0.525	1	01/27/24 03:31	01/31/24 02:16	94-74-6	
2-(2-methyl-4-chlorophenoxy)pa	**<0.435**	mg/kg	1.45	0.435	1	01/27/24 03:31	01/31/24 02:16	93-65-2	
2,4,5-T	**<0.0101**	mg/kg	0.0337	0.0101	1	01/27/24 03:31	01/31/24 02:16	93-76-5	
2,4,5-TP (Silvex)	**<0.0127**	mg/kg	0.0423	0.0127	1	01/27/24 03:31	01/31/24 02:16	93-72-1	
Surrogates									
2,4-DCAA (S)	91.5	%	22.0-132		1	01/27/24 03:31	01/31/24 02:16	19719-28-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-01-02-03 **Lab ID: 40273365001** Collected: 01/17/24 10:10 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<17.1**	ug/kg	56.1	17.1	1	01/23/24 12:00	01/23/24 18:52	12674-11-2	
PCB-1221 (Aroclor 1221)	**<17.1**	ug/kg	56.1	17.1	1	01/23/24 12:00	01/23/24 18:52	11104-28-2	
PCB-1232 (Aroclor 1232)	**<17.1**	ug/kg	56.1	17.1	1	01/23/24 12:00	01/23/24 18:52	11141-16-5	
PCB-1242 (Aroclor 1242)	**<17.1**	ug/kg	56.1	17.1	1	01/23/24 12:00	01/23/24 18:52	53469-21-9	
PCB-1248 (Aroclor 1248)	**<17.1**	ug/kg	56.1	17.1	1	01/23/24 12:00	01/23/24 18:52	12672-29-6	
PCB-1254 (Aroclor 1254)	**<17.1**	ug/kg	56.1	17.1	1	01/23/24 12:00	01/23/24 18:52	11097-69-1	
PCB-1260 (Aroclor 1260)	**<17.1**	ug/kg	56.1	17.1	1	01/23/24 12:00	01/23/24 18:52	11096-82-5	
PCB, Total	**<17.1**	ug/kg	56.1	17.1	1	01/23/24 12:00	01/23/24 18:52	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	44-120		1	01/23/24 12:00	01/23/24 18:52	877-09-8	
Decachlorobiphenyl (S)	90	%	34-120		1	01/23/24 12:00	01/23/24 18:52	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**2.0J**	mg/kg	2.8	1.6	1	01/23/24 06:13	01/23/24 15:44	7440-38-2	
Barium	**57.4**	mg/kg	0.56	0.17	1	01/23/24 06:13	01/23/24 15:44	7440-39-3	
Cadmium	**<0.15**	mg/kg	0.56	0.15	1	01/23/24 06:13	01/23/24 15:44	7440-43-9	
Chromium	**14.9**	mg/kg	1.1	0.31	1	01/23/24 06:13	01/23/24 15:44	7440-47-3	
Lead	**3.7**	mg/kg	2.2	0.67	1	01/23/24 06:13	01/23/24 15:44	7439-92-1	
Selenium	**<1.5**	mg/kg	4.5	1.5	1	01/23/24 06:13	01/23/24 15:44	7782-49-2	
Silver	**<0.34**	mg/kg	1.1	0.34	1	01/23/24 06:13	01/23/24 15:44	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**0.010J**	mg/kg	0.035	0.010	1	01/31/24 11:02	02/01/24 12:52	7439-97-6	
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.4**	ug/kg	18.8	2.4	1	01/26/24 07:55	01/26/24 13:38	83-32-9	
Acenaphthylene	**<2.4**	ug/kg	18.8	2.4	1	01/26/24 07:55	01/26/24 13:38	208-96-8	
Anthracene	**<2.3**	ug/kg	18.8	2.3	1	01/26/24 07:55	01/26/24 13:38	120-12-7	
Benzo(a)anthracene	**<2.4**	ug/kg	18.8	2.4	1	01/26/24 07:55	01/26/24 13:38	56-55-3	
Benzo(a)pyrene	**<2.1**	ug/kg	18.8	2.1	1	01/26/24 07:55	01/26/24 13:38	50-32-8	
Benzo(b)fluoranthene	**<2.6**	ug/kg	18.8	2.6	1	01/26/24 07:55	01/26/24 13:38	205-99-2	
Benzo(g,h,i)perylene	**<3.3**	ug/kg	18.8	3.3	1	01/26/24 07:55	01/26/24 13:38	191-24-2	
Benzo(k)fluoranthene	**<2.4**	ug/kg	18.8	2.4	1	01/26/24 07:55	01/26/24 13:38	207-08-9	
Chrysene	**<3.5**	ug/kg	18.8	3.5	1	01/26/24 07:55	01/26/24 13:38	218-01-9	
Dibenz(a,h)anthracene	**<2.6**	ug/kg	18.8	2.6	1	01/26/24 07:55	01/26/24 13:38	53-70-3	
Fluoranthene	**<2.2**	ug/kg	18.8	2.2	1	01/26/24 07:55	01/26/24 13:38	206-44-0	
Fluorene	**<2.3**	ug/kg	18.8	2.3	1	01/26/24 07:55	01/26/24 13:38	86-73-7	
Indeno(1,2,3-cd)pyrene	**<3.9**	ug/kg	18.8	3.9	1	01/26/24 07:55	01/26/24 13:38	193-39-5	
1-Methylnaphthalene	**<2.7**	ug/kg	18.8	2.7	1	01/26/24 07:55	01/26/24 13:38	90-12-0	
2-Methylnaphthalene	**<2.8**	ug/kg	18.8	2.8	1	01/26/24 07:55	01/26/24 13:38	91-57-6	
Naphthalene	**<1.8**	ug/kg	18.8	1.8	1	01/26/24 07:55	01/26/24 13:38	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-01-02-03 **Lab ID: 40273365001** Collected: 01/17/24 10:10 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Phenanthrene	**<2.2**	ug/kg	18.8	2.2	1	01/26/24 07:55	01/26/24 13:38	85-01-8	
Pyrene	**<2.8**	ug/kg	18.8	2.8	1	01/26/24 07:55	01/26/24 13:38	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	53	%	39-120		1	01/26/24 07:55	01/26/24 13:38	321-60-8	
Terphenyl-d14 (S)	65	%	36-120		1	01/26/24 07:55	01/26/24 13:38	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<15.0**	ug/kg	62.5	15.0	1	01/23/24 08:15	01/23/24 14:42	630-20-6	
1,1,1-Trichloroethane	**<16.0**	ug/kg	62.5	16.0	1	01/23/24 08:15	01/23/24 14:42	71-55-6	
1,1,2,2-Tetrachloroethane	**<22.6**	ug/kg	62.5	22.6	1	01/23/24 08:15	01/23/24 14:42	79-34-5	
1,1,2-Trichloroethane	**<22.8**	ug/kg	62.5	22.8	1	01/23/24 08:15	01/23/24 14:42	79-00-5	
1,1-Dichloroethane	**<16.0**	ug/kg	62.5	16.0	1	01/23/24 08:15	01/23/24 14:42	75-34-3	
1,1-Dichloroethene	**<20.8**	ug/kg	62.5	20.8	1	01/23/24 08:15	01/23/24 14:42	75-35-4	
1,1-Dichloropropene	**<20.3**	ug/kg	62.5	20.3	1	01/23/24 08:15	01/23/24 14:42	563-58-6	
1,2,3-Trichlorobenzene	**<69.7**	ug/kg	313	69.7	1	01/23/24 08:15	01/23/24 14:42	87-61-6	
1,2,3-Trichloropropane	**<30.4**	ug/kg	62.5	30.4	1	01/23/24 08:15	01/23/24 14:42	96-18-4	
1,2,4-Trichlorobenzene	**<51.5**	ug/kg	313	51.5	1	01/23/24 08:15	01/23/24 14:42	120-82-1	
1,2,4-Trimethylbenzene	**<18.6**	ug/kg	62.5	18.6	1	01/23/24 08:15	01/23/24 14:42	95-63-6	
1,2-Dibromo-3-chloropropane	**<48.5**	ug/kg	313	48.5	1	01/23/24 08:15	01/23/24 14:42	96-12-8	
1,2-Dibromoethane (EDB)	**<17.1**	ug/kg	62.5	17.1	1	01/23/24 08:15	01/23/24 14:42	106-93-4	
1,2-Dichlorobenzene	**<19.4**	ug/kg	62.5	19.4	1	01/23/24 08:15	01/23/24 14:42	95-50-1	
1,2-Dichloroethane	**<14.4**	ug/kg	62.5	14.4	1	01/23/24 08:15	01/23/24 14:42	107-06-2	
1,2-Dichloropropane	**<14.9**	ug/kg	62.5	14.9	1	01/23/24 08:15	01/23/24 14:42	78-87-5	
1,3,5-Trimethylbenzene	**<20.1**	ug/kg	62.5	20.1	1	01/23/24 08:15	01/23/24 14:42	108-67-8	
1,3-Dichlorobenzene	**<17.1**	ug/kg	62.5	17.1	1	01/23/24 08:15	01/23/24 14:42	541-73-1	
1,3-Dichloropropane	**<13.6**	ug/kg	62.5	13.6	1	01/23/24 08:15	01/23/24 14:42	142-28-9	
1,4-Dichlorobenzene	**<17.1**	ug/kg	62.5	17.1	1	01/23/24 08:15	01/23/24 14:42	106-46-7	
2,2-Dichloropropane	**<16.9**	ug/kg	62.5	16.9	1	01/23/24 08:15	01/23/24 14:42	594-20-7	
2-Chlorotoluene	**<20.3**	ug/kg	62.5	20.3	1	01/23/24 08:15	01/23/24 14:42	95-49-8	
4-Chlorotoluene	**<23.8**	ug/kg	62.5	23.8	1	01/23/24 08:15	01/23/24 14:42	106-43-4	
Benzene	**<14.9**	ug/kg	25.0	14.9	1	01/23/24 08:15	01/23/24 14:42	71-43-2	
Bromobenzene	**<24.4**	ug/kg	62.5	24.4	1	01/23/24 08:15	01/23/24 14:42	108-86-1	
Bromochloromethane	**<17.1**	ug/kg	62.5	17.1	1	01/23/24 08:15	01/23/24 14:42	74-97-5	
Bromodichloromethane	**<14.9**	ug/kg	62.5	14.9	1	01/23/24 08:15	01/23/24 14:42	75-27-4	
Bromoform	**<275**	ug/kg	313	275	1	01/23/24 08:15	01/23/24 14:42	75-25-2	
Bromomethane	**<87.7**	ug/kg	313	87.7	1	01/23/24 08:15	01/23/24 14:42	74-83-9	
Carbon tetrachloride	**<13.8**	ug/kg	62.5	13.8	1	01/23/24 08:15	01/23/24 14:42	56-23-5	
Chlorobenzene	**<7.5**	ug/kg	62.5	7.5	1	01/23/24 08:15	01/23/24 14:42	108-90-7	
Chloroethane	**<26.4**	ug/kg	313	26.4	1	01/23/24 08:15	01/23/24 14:42	75-00-3	
Chloroform	**<44.8**	ug/kg	313	44.8	1	01/23/24 08:15	01/23/24 14:42	67-66-3	
Chloromethane	**<23.8**	ug/kg	62.5	23.8	1	01/23/24 08:15	01/23/24 14:42	74-87-3	
Dibromochloromethane	**<214**	ug/kg	313	214	1	01/23/24 08:15	01/23/24 14:42	124-48-1	
Dibromomethane	**<18.5**	ug/kg	62.5	18.5	1	01/23/24 08:15	01/23/24 14:42	74-95-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-01-02-03 **Lab ID: 40273365001** Collected: 01/17/24 10:10 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Dichlorodifluoromethane	**<26.9**	ug/kg	62.5	26.9	1	01/23/24 08:15	01/23/24 14:42	75-71-8	
Diisopropyl ether	**<15.5**	ug/kg	62.5	15.5	1	01/23/24 08:15	01/23/24 14:42	108-20-3	
Ethylbenzene	**<14.9**	ug/kg	62.5	14.9	1	01/23/24 08:15	01/23/24 14:42	100-41-4	
Hexachloro-1,3-butadiene	**<124**	ug/kg	313	124	1	01/23/24 08:15	01/23/24 14:42	87-68-3	
Isopropylbenzene (Cumene)	**<16.9**	ug/kg	62.5	16.9	1	01/23/24 08:15	01/23/24 14:42	98-82-8	
Methyl-tert-butyl ether	**<18.4**	ug/kg	62.5	18.4	1	01/23/24 08:15	01/23/24 14:42	1634-04-4	
Methylene Chloride	**<17.4**	ug/kg	62.5	17.4	1	01/23/24 08:15	01/23/24 14:42	75-09-2	
Naphthalene	**<26.3**	ug/kg	313	26.3	1	01/23/24 08:15	01/23/24 14:42	91-20-3	
Styrene	**<16.0**	ug/kg	62.5	16.0	1	01/23/24 08:15	01/23/24 14:42	100-42-5	
Tetrachloroethene	**<24.3**	ug/kg	62.5	24.3	1	01/23/24 08:15	01/23/24 14:42	127-18-4	
Toluene	**<15.8**	ug/kg	62.5	15.8	1	01/23/24 08:15	01/23/24 14:42	108-88-3	
Trichloroethene	**<23.4**	ug/kg	62.5	23.4	1	01/23/24 08:15	01/23/24 14:42	79-01-6	
Trichlorofluoromethane	**<18.1**	ug/kg	62.5	18.1	1	01/23/24 08:15	01/23/24 14:42	75-69-4	
Vinyl chloride	**<12.6**	ug/kg	62.5	12.6	1	01/23/24 08:15	01/23/24 14:42	75-01-4	
cis-1,2-Dichloroethene	**<13.4**	ug/kg	62.5	13.4	1	01/23/24 08:15	01/23/24 14:42	156-59-2	
cis-1,3-Dichloropropene	**<41.3**	ug/kg	313	41.3	1	01/23/24 08:15	01/23/24 14:42	10061-01-5	
m&p-Xylene	**<26.4**	ug/kg	125	26.4	1	01/23/24 08:15	01/23/24 14:42	179601-23-1	
n-Butylbenzene	**<28.6**	ug/kg	62.5	28.6	1	01/23/24 08:15	01/23/24 14:42	104-51-8	
n-Propylbenzene	**<15.0**	ug/kg	62.5	15.0	1	01/23/24 08:15	01/23/24 14:42	103-65-1	
o-Xylene	**<18.8**	ug/kg	62.5	18.8	1	01/23/24 08:15	01/23/24 14:42	95-47-6	
p-Isopropyltoluene	**<21.3**	ug/kg	62.5	21.3	1	01/23/24 08:15	01/23/24 14:42	99-87-6	
sec-Butylbenzene	**<21.5**	ug/kg	62.5	21.5	1	01/23/24 08:15	01/23/24 14:42	135-98-8	
tert-Butylbenzene	**<19.6**	ug/kg	62.5	19.6	1	01/23/24 08:15	01/23/24 14:42	98-06-6	
trans-1,2-Dichloroethene	**<13.7**	ug/kg	62.5	13.7	1	01/23/24 08:15	01/23/24 14:42	156-60-5	
trans-1,3-Dichloropropene	**<179**	ug/kg	313	179	1	01/23/24 08:15	01/23/24 14:42	10061-02-6	
Surrogates									
Toluene-d8 (S)	116	%	70-139		1	01/23/24 08:15	01/23/24 14:42	2037-26-5	
4-Bromofluorobenzene (S)	121	%	72-142		1	01/23/24 08:15	01/23/24 14:42	460-00-4	
1,2-Dichlorobenzene-d4 (S)	124	%	67-144		1	01/23/24 08:15	01/23/24 14:42	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**11.1**	%	0.10	0.10	1		01/22/24 17:47		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**84.3**	%			1	01/27/24 10:45	01/27/24 11:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-02-05-06 **Lab ID: 40273365002** Collected: 01/17/24 10:40 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Pesticides (GC) 8081B	Analytical Method: EPA 8081B Preparation Method: 3546/3665A Pace National - Mt. Juliet								
Aldrin	**<0.00399**	mg/kg	0.0133	0.00399	1	01/28/24 16:09	01/29/24 00:02	309-00-2	
alpha-BHC	**<0.00390**	mg/kg	0.0130	0.00390	1	01/28/24 16:09	01/29/24 00:02	319-84-6	
beta-BHC	**<0.00402**	mg/kg	0.0134	0.00402	1	01/28/24 16:09	01/29/24 00:02	319-85-7	
delta-BHC	**<0.00367**	mg/kg	0.0122	0.00367	1	01/28/24 16:09	01/29/24 00:02	319-86-8	
gamma-BHC (Lindane)	**<0.00365**	mg/kg	0.0122	0.00365	1	01/28/24 16:09	01/29/24 00:02	58-89-9	
Chlordane (Technical)	**<0.109**	mg/kg	0.364	0.109	1	01/28/24 16:09	01/29/24 00:02	57-74-9	
alpha-Chlordane	**<0.00150**	mg/kg	0.00499	0.00150	1	01/28/24 16:09	01/29/24 00:02	5103-71-9	
gamma-Chlordane	**<0.00208**	mg/kg	0.00693	0.00208	1	01/28/24 16:09	01/29/24 00:02	5103-74-2	
4,4'-DDD	**<0.00392**	mg/kg	0.0130	0.00392	1	01/28/24 16:09	01/29/24 00:02	72-54-8	
4,4'-DDE	**<0.00388**	mg/kg	0.0129	0.00388	1	01/28/24 16:09	01/29/24 00:02	72-55-9	
4,4'-DDT	**<0.00665**	mg/kg	0.0222	0.00665	1	01/28/24 16:09	01/29/24 00:02	50-29-3	
Dieldrin	**<0.00365**	mg/kg	0.0122	0.00365	1	01/28/24 16:09	01/29/24 00:02	60-57-1	
Endosulfan I	**<0.00385**	mg/kg	0.0128	0.00385	1	01/28/24 16:09	01/29/24 00:02	959-98-8	
Endosulfan II	**<0.00355**	mg/kg	0.0119	0.00355	1	01/28/24 16:09	01/29/24 00:02	33213-65-9	
Endosulfan sulfate	**<0.00386**	mg/kg	0.0128	0.00386	1	01/28/24 16:09	01/29/24 00:02	1031-07-8	
Endrin	**<0.00371**	mg/kg	0.0124	0.00371	1	01/28/24 16:09	01/29/24 00:02	72-20-8	
Endrin aldehyde	**<0.00360**	mg/kg	0.0120	0.00360	1	01/28/24 16:09	01/29/24 00:02	7421-93-4	
Endrin ketone	**<0.00754**	mg/kg	0.0251	0.00754	1	01/28/24 16:09	01/29/24 00:02	53494-70-5	
Hexachlorobenzene	**<0.00367**	mg/kg	0.0122	0.00367	1	01/28/24 16:09	01/29/24 00:02	118-74-1	
Heptachlor	**<0.00454**	mg/kg	0.0152	0.00454	1	01/28/24 16:09	01/29/24 00:02	76-44-8	
Heptachlor epoxide	**<0.00360**	mg/kg	0.0120	0.00360	1	01/28/24 16:09	01/29/24 00:02	1024-57-3	
Methoxychlor	**<0.00513**	mg/kg	0.0171	0.00513	1	01/28/24 16:09	01/29/24 00:02	72-43-5	
Toxaphene	**<0.132**	mg/kg	0.438	0.132	1	01/28/24 16:09	01/29/24 00:02	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	58.1	%	10.0-135		1	01/28/24 16:09	01/29/24 00:02	2051-24-3	
Tetrachloro-m-xylene (S)	60.8	%	10.0-139		1	01/28/24 16:09	01/29/24 00:02	877-09-8	
Chlorinated Herb. (GC) 8151A	Analytical Method: EPA 8151A Preparation Method: 8151A Pace National - Mt. Juliet								
2,4-D	**<0.00745**	mg/kg	0.0248	0.00745	1	01/27/24 03:31	01/31/24 02:27	94-75-7	L0
Dalapon	**<0.0120**	mg/kg	0.0400	0.0120	1	01/27/24 03:31	01/31/24 02:27	127-20-8	
2,4-DB	**<0.0315**	mg/kg	0.105	0.0315	1	01/27/24 03:31	01/31/24 02:27	94-82-6	
Dicamba	**<0.0167**	mg/kg	0.0555	0.0167	1	01/27/24 03:31	01/31/24 02:27	1918-00-9	
Dichlorprop	**<0.0260**	mg/kg	0.0867	0.0260	1	01/27/24 03:31	01/31/24 02:27	120-36-5	
Dinoseb	**<0.00739**	mg/kg	0.0246	0.00739	1	01/27/24 03:31	01/31/24 02:27	88-85-7	
MCPA	**<0.470**	mg/kg	1.57	0.470	1	01/27/24 03:31	01/31/24 02:27	94-74-6	
2-(2-methyl-4-chlorophenoxy)pa	**<0.389**	mg/kg	1.29	0.389	1	01/27/24 03:31	01/31/24 02:27	93-65-2	
2,4,5-T	**<0.00904**	mg/kg	0.0301	0.00904	1	01/27/24 03:31	01/31/24 02:27	93-76-5	
2,4,5-TP (Silvex)	**<0.0113**	mg/kg	0.0379	0.0113	1	01/27/24 03:31	01/31/24 02:27	93-72-1	
Surrogates									
2,4-DCAA (S)	88.4	%	22.0-132		1	01/27/24 03:31	01/31/24 02:27	19719-28-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-02-05-06 **Lab ID: 40273365002** Collected: 01/17/24 10:40 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.0**	ug/kg	52.7	16.0	1	01/23/24 12:00	01/23/24 19:15	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.0**	ug/kg	52.7	16.0	1	01/23/24 12:00	01/23/24 19:15	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.0**	ug/kg	52.7	16.0	1	01/23/24 12:00	01/23/24 19:15	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.0**	ug/kg	52.7	16.0	1	01/23/24 12:00	01/23/24 19:15	53469-21-9	
PCB-1248 (Aroclor 1248)	**<16.0**	ug/kg	52.7	16.0	1	01/23/24 12:00	01/23/24 19:15	12672-29-6	
PCB-1254 (Aroclor 1254)	**<16.0**	ug/kg	52.7	16.0	1	01/23/24 12:00	01/23/24 19:15	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.0**	ug/kg	52.7	16.0	1	01/23/24 12:00	01/23/24 19:15	11096-82-5	
PCB, Total	**<16.0**	ug/kg	52.7	16.0	1	01/23/24 12:00	01/23/24 19:15	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	89	%	44-120		1	01/23/24 12:00	01/23/24 19:15	877-09-8	
Decachlorobiphenyl (S)	97	%	34-120		1	01/23/24 12:00	01/23/24 19:15	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**<1.5**	mg/kg	2.5	1.5	1	01/23/24 06:13	01/23/24 15:48	7440-38-2	
Barium	**32.5**	mg/kg	0.50	0.15	1	01/23/24 06:13	01/23/24 15:48	7440-39-3	
Cadmium	**<0.13**	mg/kg	0.50	0.13	1	01/23/24 06:13	01/23/24 15:48	7440-43-9	
Chromium	**12.7**	mg/kg	1.0	0.28	1	01/23/24 06:13	01/23/24 15:48	7440-47-3	
Lead	**2.7**	mg/kg	2.0	0.60	1	01/23/24 06:13	01/23/24 15:48	7439-92-1	
Selenium	**<1.3**	mg/kg	4.0	1.3	1	01/23/24 06:13	01/23/24 15:48	7782-49-2	
Silver	**<0.31**	mg/kg	1.0	0.31	1	01/23/24 06:13	01/23/24 15:48	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**<0.010**	mg/kg	0.036	0.010	1	01/31/24 11:02	02/01/24 12:54	7439-97-6	
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.3**	ug/kg	17.6	2.3	1	01/26/24 07:55	01/26/24 13:56	83-32-9	
Acenaphthylene	**<2.2**	ug/kg	17.6	2.2	1	01/26/24 07:55	01/26/24 13:56	208-96-8	
Anthracene	**<2.2**	ug/kg	17.6	2.2	1	01/26/24 07:55	01/26/24 13:56	120-12-7	
Benzo(a)anthracene	**<2.3**	ug/kg	17.6	2.3	1	01/26/24 07:55	01/26/24 13:56	56-55-3	
Benzo(a)pyrene	**<2.0**	ug/kg	17.6	2.0	1	01/26/24 07:55	01/26/24 13:56	50-32-8	
Benzo(b)fluoranthene	**<2.4**	ug/kg	17.6	2.4	1	01/26/24 07:55	01/26/24 13:56	205-99-2	
Benzo(g,h,i)perylene	**<3.1**	ug/kg	17.6	3.1	1	01/26/24 07:55	01/26/24 13:56	191-24-2	
Benzo(k)fluoranthene	**<2.2**	ug/kg	17.6	2.2	1	01/26/24 07:55	01/26/24 13:56	207-08-9	
Chrysene	**<3.3**	ug/kg	17.6	3.3	1	01/26/24 07:55	01/26/24 13:56	218-01-9	
Dibenz(a,h)anthracene	**<2.4**	ug/kg	17.6	2.4	1	01/26/24 07:55	01/26/24 13:56	53-70-3	
Fluoranthene	**<2.1**	ug/kg	17.6	2.1	1	01/26/24 07:55	01/26/24 13:56	206-44-0	
Fluorene	**<2.1**	ug/kg	17.6	2.1	1	01/26/24 07:55	01/26/24 13:56	86-73-7	
Indeno(1,2,3-cd)pyrene	**<3.7**	ug/kg	17.6	3.7	1	01/26/24 07:55	01/26/24 13:56	193-39-5	
1-Methylnaphthalene	**<2.6**	ug/kg	17.6	2.6	1	01/26/24 07:55	01/26/24 13:56	90-12-0	
2-Methylnaphthalene	**<2.6**	ug/kg	17.6	2.6	1	01/26/24 07:55	01/26/24 13:56	91-57-6	
Naphthalene	**<1.7**	ug/kg	17.6	1.7	1	01/26/24 07:55	01/26/24 13:56	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-02-05-06 **Lab ID: 40273365002** Collected: 01/17/24 10:40 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Phenanthrene	**<2.0**	ug/kg	17.6	2.0	1	01/26/24 07:55	01/26/24 13:56	85-01-8	
Pyrene	**<2.6**	ug/kg	17.6	2.6	1	01/26/24 07:55	01/26/24 13:56	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	53	%	39-120		1	01/26/24 07:55	01/26/24 13:56	321-60-8	
Terphenyl-d14 (S)	65	%	36-120		1	01/26/24 07:55	01/26/24 13:56	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<13.3**	ug/kg	55.4	13.3	1	01/23/24 08:15	01/23/24 15:01	630-20-6	
1,1,1-Trichloroethane	**<14.2**	ug/kg	55.4	14.2	1	01/23/24 08:15	01/23/24 15:01	71-55-6	
1,1,2,2-Tetrachloroethane	**<20.1**	ug/kg	55.4	20.1	1	01/23/24 08:15	01/23/24 15:01	79-34-5	
1,1,2-Trichloroethane	**<20.2**	ug/kg	55.4	20.2	1	01/23/24 08:15	01/23/24 15:01	79-00-5	
1,1-Dichloroethane	**<14.2**	ug/kg	55.4	14.2	1	01/23/24 08:15	01/23/24 15:01	75-34-3	
1,1-Dichloroethene	**<18.4**	ug/kg	55.4	18.4	1	01/23/24 08:15	01/23/24 15:01	75-35-4	
1,1-Dichloropropene	**<18.0**	ug/kg	55.4	18.0	1	01/23/24 08:15	01/23/24 15:01	563-58-6	
1,2,3-Trichlorobenzene	**<61.8**	ug/kg	277	61.8	1	01/23/24 08:15	01/23/24 15:01	87-61-6	
1,2,3-Trichloropropane	**<26.9**	ug/kg	55.4	26.9	1	01/23/24 08:15	01/23/24 15:01	96-18-4	
1,2,4-Trichlorobenzene	**<45.7**	ug/kg	277	45.7	1	01/23/24 08:15	01/23/24 15:01	120-82-1	
1,2,4-Trimethylbenzene	**<16.5**	ug/kg	55.4	16.5	1	01/23/24 08:15	01/23/24 15:01	95-63-6	
1,2-Dibromo-3-chloropropane	**<43.0**	ug/kg	277	43.0	1	01/23/24 08:15	01/23/24 15:01	96-12-8	
1,2-Dibromoethane (EDB)	**<15.2**	ug/kg	55.4	15.2	1	01/23/24 08:15	01/23/24 15:01	106-93-4	
1,2-Dichlorobenzene	**<17.2**	ug/kg	55.4	17.2	1	01/23/24 08:15	01/23/24 15:01	95-50-1	
1,2-Dichloroethane	**<12.8**	ug/kg	55.4	12.8	1	01/23/24 08:15	01/23/24 15:01	107-06-2	
1,2-Dichloropropane	**<13.2**	ug/kg	55.4	13.2	1	01/23/24 08:15	01/23/24 15:01	78-87-5	
1,3,5-Trimethylbenzene	**<17.9**	ug/kg	55.4	17.9	1	01/23/24 08:15	01/23/24 15:01	108-67-8	
1,3-Dichlorobenzene	**<15.2**	ug/kg	55.4	15.2	1	01/23/24 08:15	01/23/24 15:01	541-73-1	
1,3-Dichloropropane	**<12.1**	ug/kg	55.4	12.1	1	01/23/24 08:15	01/23/24 15:01	142-28-9	
1,4-Dichlorobenzene	**<15.2**	ug/kg	55.4	15.2	1	01/23/24 08:15	01/23/24 15:01	106-46-7	
2,2-Dichloropropane	**<15.0**	ug/kg	55.4	15.0	1	01/23/24 08:15	01/23/24 15:01	594-20-7	
2-Chlorotoluene	**<18.0**	ug/kg	55.4	18.0	1	01/23/24 08:15	01/23/24 15:01	95-49-8	
4-Chlorotoluene	**<21.1**	ug/kg	55.4	21.1	1	01/23/24 08:15	01/23/24 15:01	106-43-4	
Benzene	**<13.2**	ug/kg	22.2	13.2	1	01/23/24 08:15	01/23/24 15:01	71-43-2	
Bromobenzene	**<21.6**	ug/kg	55.4	21.6	1	01/23/24 08:15	01/23/24 15:01	108-86-1	
Bromochloromethane	**<15.2**	ug/kg	55.4	15.2	1	01/23/24 08:15	01/23/24 15:01	74-97-5	
Bromodichloromethane	**<13.2**	ug/kg	55.4	13.2	1	01/23/24 08:15	01/23/24 15:01	75-27-4	
Bromoform	**<244**	ug/kg	277	244	1	01/23/24 08:15	01/23/24 15:01	75-25-2	
Bromomethane	**<77.7**	ug/kg	277	77.7	1	01/23/24 08:15	01/23/24 15:01	74-83-9	
Carbon tetrachloride	**<12.2**	ug/kg	55.4	12.2	1	01/23/24 08:15	01/23/24 15:01	56-23-5	
Chlorobenzene	**<6.6**	ug/kg	55.4	6.6	1	01/23/24 08:15	01/23/24 15:01	108-90-7	
Chloroethane	**<23.4**	ug/kg	277	23.4	1	01/23/24 08:15	01/23/24 15:01	75-00-3	
Chloroform	**<39.7**	ug/kg	277	39.7	1	01/23/24 08:15	01/23/24 15:01	67-66-3	
Chloromethane	**<21.1**	ug/kg	55.4	21.1	1	01/23/24 08:15	01/23/24 15:01	74-87-3	
Dibromochloromethane	**<190**	ug/kg	277	190	1	01/23/24 08:15	01/23/24 15:01	124-48-1	
Dibromomethane	**<16.4**	ug/kg	55.4	16.4	1	01/23/24 08:15	01/23/24 15:01	74-95-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-02-05-06 **Lab ID: 40273365002** Collected: 01/17/24 10:40 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Dichlorodifluoromethane	**<23.8**	ug/kg	55.4	23.8	1	01/23/24 08:15	01/23/24 15:01	75-71-8	
Diisopropyl ether	**<13.8**	ug/kg	55.4	13.8	1	01/23/24 08:15	01/23/24 15:01	108-20-3	
Ethylbenzene	**<13.2**	ug/kg	55.4	13.2	1	01/23/24 08:15	01/23/24 15:01	100-41-4	
Hexachloro-1,3-butadiene	**<110**	ug/kg	277	110	1	01/23/24 08:15	01/23/24 15:01	87-68-3	
Isopropylbenzene (Cumene)	**<15.0**	ug/kg	55.4	15.0	1	01/23/24 08:15	01/23/24 15:01	98-82-8	
Methyl-tert-butyl ether	**<16.3**	ug/kg	55.4	16.3	1	01/23/24 08:15	01/23/24 15:01	1634-04-4	
Methylene Chloride	**<15.4**	ug/kg	55.4	15.4	1	01/23/24 08:15	01/23/24 15:01	75-09-2	
Naphthalene	**<23.3**	ug/kg	277	23.3	1	01/23/24 08:15	01/23/24 15:01	91-20-3	
Styrene	**<14.2**	ug/kg	55.4	14.2	1	01/23/24 08:15	01/23/24 15:01	100-42-5	
Tetrachloroethene	**<21.5**	ug/kg	55.4	21.5	1	01/23/24 08:15	01/23/24 15:01	127-18-4	
Toluene	**<14.0**	ug/kg	55.4	14.0	1	01/23/24 08:15	01/23/24 15:01	108-88-3	
Trichloroethene	**<20.7**	ug/kg	55.4	20.7	1	01/23/24 08:15	01/23/24 15:01	79-01-6	
Trichlorofluoromethane	**<16.1**	ug/kg	55.4	16.1	1	01/23/24 08:15	01/23/24 15:01	75-69-4	
Vinyl chloride	**<11.2**	ug/kg	55.4	11.2	1	01/23/24 08:15	01/23/24 15:01	75-01-4	
cis-1,2-Dichloroethene	**<11.9**	ug/kg	55.4	11.9	1	01/23/24 08:15	01/23/24 15:01	156-59-2	
cis-1,3-Dichloropropene	**<36.6**	ug/kg	277	36.6	1	01/23/24 08:15	01/23/24 15:01	10061-01-5	
m&p-Xylene	**<23.4**	ug/kg	111	23.4	1	01/23/24 08:15	01/23/24 15:01	179601-23-1	
n-Butylbenzene	**<25.4**	ug/kg	55.4	25.4	1	01/23/24 08:15	01/23/24 15:01	104-51-8	
n-Propylbenzene	**<13.3**	ug/kg	55.4	13.3	1	01/23/24 08:15	01/23/24 15:01	103-65-1	
o-Xylene	**<16.6**	ug/kg	55.4	16.6	1	01/23/24 08:15	01/23/24 15:01	95-47-6	
p-Isopropyltoluene	**<18.9**	ug/kg	55.4	18.9	1	01/23/24 08:15	01/23/24 15:01	99-87-6	
sec-Butylbenzene	**<19.0**	ug/kg	55.4	19.0	1	01/23/24 08:15	01/23/24 15:01	135-98-8	
tert-Butylbenzene	**<17.4**	ug/kg	55.4	17.4	1	01/23/24 08:15	01/23/24 15:01	98-06-6	
trans-1,2-Dichloroethene	**<12.1**	ug/kg	55.4	12.1	1	01/23/24 08:15	01/23/24 15:01	156-60-5	
trans-1,3-Dichloropropene	**<159**	ug/kg	277	159	1	01/23/24 08:15	01/23/24 15:01	10061-02-6	
Surrogates									
Toluene-d8 (S)	110	%	70-139		1	01/23/24 08:15	01/23/24 15:01	2037-26-5	
4-Bromofluorobenzene (S)	108	%	72-142		1	01/23/24 08:15	01/23/24 15:01	460-00-4	
1,2-Dichlorobenzene-d4 (S)	115	%	67-144		1	01/23/24 08:15	01/23/24 15:01	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**5.2**	%	0.10	0.10	1		01/22/24 17:47		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**94.3**	%			1	01/27/24 10:45	01/27/24 11:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-03-05-06 **Lab ID: 40273365003** Collected: 01/17/24 11:20 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Pesticides (GC) 8081B	Analytical Method: EPA 8081B Preparation Method: 3546/3665A Pace National - Mt. Juliet								
Aldrin	**<0.00402**	mg/kg	0.0134	0.00402	1	01/28/24 16:09	01/29/24 00:10	309-00-2	
alpha-BHC	**<0.00394**	mg/kg	0.0132	0.00394	1	01/28/24 16:09	01/29/24 00:10	319-84-6	
beta-BHC	**<0.00405**	mg/kg	0.0135	0.00405	1	01/28/24 16:09	01/29/24 00:10	319-85-7	
delta-BHC	**<0.00370**	mg/kg	0.0123	0.00370	1	01/28/24 16:09	01/29/24 00:10	319-86-8	
gamma-BHC (Lindane)	**<0.00368**	mg/kg	0.0123	0.00368	1	01/28/24 16:09	01/29/24 00:10	58-89-9	
Chlordane (Technical)	**<0.110**	mg/kg	0.367	0.110	1	01/28/24 16:09	01/29/24 00:10	57-74-9	
alpha-Chlordane	**<0.00151**	mg/kg	0.00503	0.00151	1	01/28/24 16:09	01/29/24 00:10	5103-71-9	
gamma-Chlordane	**<0.00210**	mg/kg	0.00698	0.00210	1	01/28/24 16:09	01/29/24 00:10	5103-74-2	
4,4'-DDD	**<0.00396**	mg/kg	0.0132	0.00396	1	01/28/24 16:09	01/29/24 00:10	72-54-8	
4,4'-DDE	**<0.00391**	mg/kg	0.0130	0.00391	1	01/28/24 16:09	01/29/24 00:10	72-55-9	
4,4'-DDT	**<0.00671**	mg/kg	0.0224	0.00671	1	01/28/24 16:09	01/29/24 00:10	50-29-3	
Dieldrin	**<0.00368**	mg/kg	0.0123	0.00368	1	01/28/24 16:09	01/29/24 00:10	60-57-1	
Endosulfan I	**<0.00388**	mg/kg	0.0129	0.00388	1	01/28/24 16:09	01/29/24 00:10	959-98-8	
Endosulfan II	**<0.00358**	mg/kg	0.0120	0.00358	1	01/28/24 16:09	01/29/24 00:10	33213-65-9	
Endosulfan sulfate	**<0.00389**	mg/kg	0.0129	0.00389	1	01/28/24 16:09	01/29/24 00:10	1031-07-8	
Endrin	**<0.00374**	mg/kg	0.0125	0.00374	1	01/28/24 16:09	01/29/24 00:10	72-20-8	
Endrin aldehyde	**<0.00363**	mg/kg	0.0121	0.00363	1	01/28/24 16:09	01/29/24 00:10	7421-93-4	
Endrin ketone	**<0.00760**	mg/kg	0.0253	0.00760	1	01/28/24 16:09	01/29/24 00:10	53494-70-5	
Hexachlorobenzene	**<0.00370**	mg/kg	0.0123	0.00370	1	01/28/24 16:09	01/29/24 00:10	118-74-1	
Heptachlor	**<0.00458**	mg/kg	0.0153	0.00458	1	01/28/24 16:09	01/29/24 00:10	76-44-8	
Heptachlor epoxide	**<0.00363**	mg/kg	0.0121	0.00363	1	01/28/24 16:09	01/29/24 00:10	1024-57-3	
Methoxychlor	**<0.00518**	mg/kg	0.0172	0.00518	1	01/28/24 16:09	01/29/24 00:10	72-43-5	
Toxaphene	**<0.133**	mg/kg	0.442	0.133	1	01/28/24 16:09	01/29/24 00:10	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	49.5	%	10.0-135		1	01/28/24 16:09	01/29/24 00:10	2051-24-3	
Tetrachloro-m-xylene (S)	51.5	%	10.0-139		1	01/28/24 16:09	01/29/24 00:10	877-09-8	
Chlorinated Herb. (GC) 8151A	Analytical Method: EPA 8151A Preparation Method: 8151A Pace National - Mt. Juliet								
2,4-D	**<0.00751**	mg/kg	0.0250	0.00751	1	01/27/24 03:31	01/31/24 03:13	94-75-7	L0
Dalapon	**<0.0121**	mg/kg	0.0403	0.0121	1	01/27/24 03:31	01/31/24 03:13	127-20-8	
2,4-DB	**<0.0318**	mg/kg	0.106	0.0318	1	01/27/24 03:31	01/31/24 03:13	94-82-6	
Dicamba	**<0.0168**	mg/kg	0.0559	0.0168	1	01/27/24 03:31	01/31/24 03:13	1918-00-9	
Dichlorprop	**<0.0262**	mg/kg	0.0874	0.0262	1	01/27/24 03:31	01/31/24 03:13	120-36-5	
Dinoseb	**<0.00745**	mg/kg	0.0248	0.00745	1	01/27/24 03:31	01/31/24 03:13	88-85-7	
MCPA	**<0.474**	mg/kg	1.58	0.474	1	01/27/24 03:31	01/31/24 03:13	94-74-6	
2-(2-methyl-4-chlorophenoxy)pa	**<0.392**	mg/kg	1.30	0.392	1	01/27/24 03:31	01/31/24 03:13	93-65-2	
2,4,5-T	**<0.00911**	mg/kg	0.0304	0.00911	1	01/27/24 03:31	01/31/24 03:13	93-76-5	
2,4,5-TP (Silvex)	**<0.0114**	mg/kg	0.0382	0.0114	1	01/27/24 03:31	01/31/24 03:13	93-72-1	
Surrogates									
2,4-DCAA (S)	56.1	%	22.0-132		1	01/27/24 03:31	01/31/24 03:13	19719-28-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-03-05-06 **Lab ID: 40273365003** Collected: 01/17/24 11:20 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.5**	ug/kg	54.2	16.5	1	01/23/24 12:00	01/23/24 19:39	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.5**	ug/kg	54.2	16.5	1	01/23/24 12:00	01/23/24 19:39	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.5**	ug/kg	54.2	16.5	1	01/23/24 12:00	01/23/24 19:39	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.5**	ug/kg	54.2	16.5	1	01/23/24 12:00	01/23/24 19:39	53469-21-9	
PCB-1248 (Aroclor 1248)	**<16.5**	ug/kg	54.2	16.5	1	01/23/24 12:00	01/23/24 19:39	12672-29-6	
PCB-1254 (Aroclor 1254)	**<16.5**	ug/kg	54.2	16.5	1	01/23/24 12:00	01/23/24 19:39	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.5**	ug/kg	54.2	16.5	1	01/23/24 12:00	01/23/24 19:39	11096-82-5	
PCB, Total	**<16.5**	ug/kg	54.2	16.5	1	01/23/24 12:00	01/23/24 19:39	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	88	%	44-120		1	01/23/24 12:00	01/23/24 19:39	877-09-8	
Decachlorobiphenyl (S)	91	%	34-120		1	01/23/24 12:00	01/23/24 19:39	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**<1.5**	mg/kg	2.6	1.5	1	01/23/24 06:13	01/23/24 15:50	7440-38-2	
Barium	**35.9**	mg/kg	0.52	0.16	1	01/23/24 06:13	01/23/24 15:50	7440-39-3	
Cadmium	**<0.14**	mg/kg	0.52	0.14	1	01/23/24 06:13	01/23/24 15:50	7440-43-9	
Chromium	**21.3**	mg/kg	1.0	0.29	1	01/23/24 06:13	01/23/24 15:50	7440-47-3	
Lead	**3.2**	mg/kg	2.1	0.62	1	01/23/24 06:13	01/23/24 15:50	7439-92-1	
Selenium	**<1.4**	mg/kg	4.2	1.4	1	01/23/24 06:13	01/23/24 15:50	7782-49-2	
Silver	**<0.32**	mg/kg	1.0	0.32	1	01/23/24 06:13	01/23/24 15:50	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**<0.011**	mg/kg	0.037	0.011	1	01/31/24 11:02	02/01/24 12:56	7439-97-6	
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.4**	ug/kg	18.2	2.4	1	01/26/24 07:55	01/26/24 17:05	83-32-9	
Acenaphthylene	**<2.3**	ug/kg	18.2	2.3	1	01/26/24 07:55	01/26/24 17:05	208-96-8	
Anthracene	**3.3J**	ug/kg	18.2	2.3	1	01/26/24 07:55	01/26/24 17:05	120-12-7	
Benzo(a)anthracene	**20.4**	ug/kg	18.2	2.3	1	01/26/24 07:55	01/26/24 17:05	56-55-3	
Benzo(a)pyrene	**37.1**	ug/kg	18.2	2.1	1	01/26/24 07:55	01/26/24 17:05	50-32-8	
Benzo(b)fluoranthene	**72.6**	ug/kg	18.2	2.5	1	01/26/24 07:55	01/26/24 17:05	205-99-2	
Benzo(g,h,i)perylene	**71.0**	ug/kg	18.2	3.2	1	01/26/24 07:55	01/26/24 17:05	191-24-2	
Benzo(k)fluoranthene	**35.9**	ug/kg	18.2	2.3	1	01/26/24 07:55	01/26/24 17:05	207-08-9	
Chrysene	**45.7**	ug/kg	18.2	3.4	1	01/26/24 07:55	01/26/24 17:05	218-01-9	
Dibenz(a,h)anthracene	**10.8J**	ug/kg	18.2	2.5	1	01/26/24 07:55	01/26/24 17:05	53-70-3	
Fluoranthene	**61.2**	ug/kg	18.2	2.2	1	01/26/24 07:55	01/26/24 17:05	206-44-0	
Fluorene	**<2.2**	ug/kg	18.2	2.2	1	01/26/24 07:55	01/26/24 17:05	86-73-7	
Indeno(1,2,3-cd)pyrene	**52.5**	ug/kg	18.2	3.8	1	01/26/24 07:55	01/26/24 17:05	193-39-5	
1-Methylnaphthalene	**<2.7**	ug/kg	18.2	2.7	1	01/26/24 07:55	01/26/24 17:05	90-12-0	
2-Methylnaphthalene	**<2.7**	ug/kg	18.2	2.7	1	01/26/24 07:55	01/26/24 17:05	91-57-6	
Naphthalene	**3.1J**	ug/kg	18.2	1.8	1	01/26/24 07:55	01/26/24 17:05	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-03-05-06 **Lab ID: 40273365003** Collected: 01/17/24 11:20 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Phenanthrene	**24.5**	ug/kg	18.2	2.1	1	01/26/24 07:55	01/26/24 17:05	85-01-8	
Pyrene	**55.6**	ug/kg	18.2	2.7	1	01/26/24 07:55	01/26/24 17:05	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	56	%	39-120		1	01/26/24 07:55	01/26/24 17:05	321-60-8	
Terphenyl-d14 (S)	63	%	36-120		1	01/26/24 07:55	01/26/24 17:05	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<14.1**	ug/kg	58.8	14.1	1	01/23/24 08:15	01/23/24 15:21	630-20-6	
1,1,1-Trichloroethane	**<15.0**	ug/kg	58.8	15.0	1	01/23/24 08:15	01/23/24 15:21	71-55-6	
1,1,2,2-Tetrachloroethane	**<21.3**	ug/kg	58.8	21.3	1	01/23/24 08:15	01/23/24 15:21	79-34-5	
1,1,2-Trichloroethane	**<21.4**	ug/kg	58.8	21.4	1	01/23/24 08:15	01/23/24 15:21	79-00-5	
1,1-Dichloroethane	**<15.0**	ug/kg	58.8	15.0	1	01/23/24 08:15	01/23/24 15:21	75-34-3	
1,1-Dichloroethene	**<19.5**	ug/kg	58.8	19.5	1	01/23/24 08:15	01/23/24 15:21	75-35-4	
1,1-Dichloropropene	**<19.0**	ug/kg	58.8	19.0	1	01/23/24 08:15	01/23/24 15:21	563-58-6	
1,2,3-Trichlorobenzene	**<65.5**	ug/kg	294	65.5	1	01/23/24 08:15	01/23/24 15:21	87-61-6	
1,2,3-Trichloropropane	**<28.6**	ug/kg	58.8	28.6	1	01/23/24 08:15	01/23/24 15:21	96-18-4	
1,2,4-Trichlorobenzene	**<48.4**	ug/kg	294	48.4	1	01/23/24 08:15	01/23/24 15:21	120-82-1	
1,2,4-Trimethylbenzene	**<17.5**	ug/kg	58.8	17.5	1	01/23/24 08:15	01/23/24 15:21	95-63-6	
1,2-Dibromo-3-chloropropane	**<45.6**	ug/kg	294	45.6	1	01/23/24 08:15	01/23/24 15:21	96-12-8	
1,2-Dibromoethane (EDB)	**<16.1**	ug/kg	58.8	16.1	1	01/23/24 08:15	01/23/24 15:21	106-93-4	
1,2-Dichlorobenzene	**<18.2**	ug/kg	58.8	18.2	1	01/23/24 08:15	01/23/24 15:21	95-50-1	
1,2-Dichloroethane	**<13.5**	ug/kg	58.8	13.5	1	01/23/24 08:15	01/23/24 15:21	107-06-2	
1,2-Dichloropropane	**<14.0**	ug/kg	58.8	14.0	1	01/23/24 08:15	01/23/24 15:21	78-87-5	
1,3,5-Trimethylbenzene	**<18.9**	ug/kg	58.8	18.9	1	01/23/24 08:15	01/23/24 15:21	108-67-8	
1,3-Dichlorobenzene	**<16.1**	ug/kg	58.8	16.1	1	01/23/24 08:15	01/23/24 15:21	541-73-1	
1,3-Dichloropropane	**<12.8**	ug/kg	58.8	12.8	1	01/23/24 08:15	01/23/24 15:21	142-28-9	
1,4-Dichlorobenzene	**<16.1**	ug/kg	58.8	16.1	1	01/23/24 08:15	01/23/24 15:21	106-46-7	
2,2-Dichloropropane	**<15.9**	ug/kg	58.8	15.9	1	01/23/24 08:15	01/23/24 15:21	594-20-7	
2-Chlorotoluene	**<19.0**	ug/kg	58.8	19.0	1	01/23/24 08:15	01/23/24 15:21	95-49-8	
4-Chlorotoluene	**<22.3**	ug/kg	58.8	22.3	1	01/23/24 08:15	01/23/24 15:21	106-43-4	
Benzene	**<14.0**	ug/kg	23.5	14.0	1	01/23/24 08:15	01/23/24 15:21	71-43-2	
Bromobenzene	**<22.9**	ug/kg	58.8	22.9	1	01/23/24 08:15	01/23/24 15:21	108-86-1	
Bromochloromethane	**<16.1**	ug/kg	58.8	16.1	1	01/23/24 08:15	01/23/24 15:21	74-97-5	
Bromodichloromethane	**<14.0**	ug/kg	58.8	14.0	1	01/23/24 08:15	01/23/24 15:21	75-27-4	
Bromoform	**<259**	ug/kg	294	259	1	01/23/24 08:15	01/23/24 15:21	75-25-2	
Bromomethane	**<82.4**	ug/kg	294	82.4	1	01/23/24 08:15	01/23/24 15:21	74-83-9	
Carbon tetrachloride	**<12.9**	ug/kg	58.8	12.9	1	01/23/24 08:15	01/23/24 15:21	56-23-5	
Chlorobenzene	**<7.0**	ug/kg	58.8	7.0	1	01/23/24 08:15	01/23/24 15:21	108-90-7	
Chloroethane	**<24.8**	ug/kg	294	24.8	1	01/23/24 08:15	01/23/24 15:21	75-00-3	
Chloroform	**<42.1**	ug/kg	294	42.1	1	01/23/24 08:15	01/23/24 15:21	67-66-3	
Chloromethane	**<22.3**	ug/kg	58.8	22.3	1	01/23/24 08:15	01/23/24 15:21	74-87-3	
Dibromochloromethane	**<201**	ug/kg	294	201	1	01/23/24 08:15	01/23/24 15:21	124-48-1	
Dibromomethane	**<17.4**	ug/kg	58.8	17.4	1	01/23/24 08:15	01/23/24 15:21	74-95-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-03-05-06 **Lab ID: 40273365003** Collected: 01/17/24 11:20 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Dichlorodifluoromethane	**<25.3**	ug/kg	58.8	25.3	1	01/23/24 08:15	01/23/24 15:21	75-71-8	
Diisopropyl ether	**<14.6**	ug/kg	58.8	14.6	1	01/23/24 08:15	01/23/24 15:21	108-20-3	
Ethylbenzene	**<14.0**	ug/kg	58.8	14.0	1	01/23/24 08:15	01/23/24 15:21	100-41-4	
Hexachloro-1,3-butadiene	**<117**	ug/kg	294	117	1	01/23/24 08:15	01/23/24 15:21	87-68-3	
Isopropylbenzene (Cumene)	**<15.9**	ug/kg	58.8	15.9	1	01/23/24 08:15	01/23/24 15:21	98-82-8	
Methyl-tert-butyl ether	**<17.3**	ug/kg	58.8	17.3	1	01/23/24 08:15	01/23/24 15:21	1634-04-4	
Methylene Chloride	**<16.3**	ug/kg	58.8	16.3	1	01/23/24 08:15	01/23/24 15:21	75-09-2	
Naphthalene	**<24.7**	ug/kg	294	24.7	1	01/23/24 08:15	01/23/24 15:21	91-20-3	
Styrene	**<15.0**	ug/kg	58.8	15.0	1	01/23/24 08:15	01/23/24 15:21	100-42-5	
Tetrachloroethene	**<22.8**	ug/kg	58.8	22.8	1	01/23/24 08:15	01/23/24 15:21	127-18-4	
Toluene	**<14.8**	ug/kg	58.8	14.8	1	01/23/24 08:15	01/23/24 15:21	108-88-3	
Trichloroethene	**<22.0**	ug/kg	58.8	22.0	1	01/23/24 08:15	01/23/24 15:21	79-01-6	
Trichlorofluoromethane	**<17.0**	ug/kg	58.8	17.0	1	01/23/24 08:15	01/23/24 15:21	75-69-4	
Vinyl chloride	**<11.9**	ug/kg	58.8	11.9	1	01/23/24 08:15	01/23/24 15:21	75-01-4	
cis-1,2-Dichloroethene	**<12.6**	ug/kg	58.8	12.6	1	01/23/24 08:15	01/23/24 15:21	156-59-2	
cis-1,3-Dichloropropene	**<38.8**	ug/kg	294	38.8	1	01/23/24 08:15	01/23/24 15:21	10061-01-5	
m&p-Xylene	**<24.8**	ug/kg	118	24.8	1	01/23/24 08:15	01/23/24 15:21	179601-23-1	
n-Butylbenzene	**<26.9**	ug/kg	58.8	26.9	1	01/23/24 08:15	01/23/24 15:21	104-51-8	
n-Propylbenzene	**<14.1**	ug/kg	58.8	14.1	1	01/23/24 08:15	01/23/24 15:21	103-65-1	
o-Xylene	**<17.6**	ug/kg	58.8	17.6	1	01/23/24 08:15	01/23/24 15:21	95-47-6	
p-Isopropyltoluene	**<20.0**	ug/kg	58.8	20.0	1	01/23/24 08:15	01/23/24 15:21	99-87-6	
sec-Butylbenzene	**<20.2**	ug/kg	58.8	20.2	1	01/23/24 08:15	01/23/24 15:21	135-98-8	
tert-Butylbenzene	**<18.5**	ug/kg	58.8	18.5	1	01/23/24 08:15	01/23/24 15:21	98-06-6	
trans-1,2-Dichloroethene	**<12.8**	ug/kg	58.8	12.8	1	01/23/24 08:15	01/23/24 15:21	156-60-5	
trans-1,3-Dichloropropene	**<168**	ug/kg	294	168	1	01/23/24 08:15	01/23/24 15:21	10061-02-6	
Surrogates									
Toluene-d8 (S)	110	%	70-139		1	01/23/24 08:15	01/23/24 15:21	2037-26-5	
4-Bromofluorobenzene (S)	114	%	72-142		1	01/23/24 08:15	01/23/24 15:21	460-00-4	
1,2-Dichlorobenzene-d4 (S)	115	%	67-144		1	01/23/24 08:15	01/23/24 15:21	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**8.1**	%	0.10	0.10	1		01/22/24 17:47		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**93.5**	%			1	01/27/24 10:45	01/27/24 11:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-04-05-06 **Lab ID: 40273365004** Collected: 01/17/24 11:45 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Pesticides (GC) 8081B	Analytical Method: EPA 8081B Preparation Method: 3546/3665A Pace National - Mt. Juliet								
Aldrin	**<0.00419**	mg/kg	0.0139	0.00419	1	01/28/24 16:09	01/29/24 00:19	309-00-2	
alpha-BHC	**<0.00410**	mg/kg	0.0137	0.00410	1	01/28/24 16:09	01/29/24 00:19	319-84-6	
beta-BHC	**<0.00422**	mg/kg	0.0140	0.00422	1	01/28/24 16:09	01/29/24 00:19	319-85-7	
delta-BHC	**<0.00386**	mg/kg	0.0128	0.00386	1	01/28/24 16:09	01/29/24 00:19	319-86-8	
gamma-BHC (Lindane)	**<0.00383**	mg/kg	0.0128	0.00383	1	01/28/24 16:09	01/29/24 00:19	58-89-9	
Chlordane (Technical)	**<0.115**	mg/kg	0.382	0.115	1	01/28/24 16:09	01/29/24 00:19	57-74-9	
alpha-Chlordane	**<0.00157**	mg/kg	0.00524	0.00157	1	01/28/24 16:09	01/29/24 00:19	5103-71-9	
gamma-Chlordane	**<0.00218**	mg/kg	0.00728	0.00218	1	01/28/24 16:09	01/29/24 00:19	5103-74-2	
4,4'-DDD	**<0.00412**	mg/kg	0.0137	0.00412	1	01/28/24 16:09	01/29/24 00:19	72-54-8	
4,4'-DDE	**<0.00408**	mg/kg	0.0136	0.00408	1	01/28/24 16:09	01/29/24 00:19	72-55-9	
4,4'-DDT	**<0.00699**	mg/kg	0.0233	0.00699	1	01/28/24 16:09	01/29/24 00:19	50-29-3	
Dieldrin	**<0.00383**	mg/kg	0.0128	0.00383	1	01/28/24 16:09	01/29/24 00:19	60-57-1	
Endosulfan I	**<0.00405**	mg/kg	0.0135	0.00405	1	01/28/24 16:09	01/29/24 00:19	959-98-8	
Endosulfan II	**<0.00373**	mg/kg	0.0125	0.00373	1	01/28/24 16:09	01/29/24 00:19	33213-65-9	
Endosulfan sulfate	**<0.00406**	mg/kg	0.0135	0.00406	1	01/28/24 16:09	01/29/24 00:19	1031-07-8	
Endrin	**<0.00390**	mg/kg	0.0130	0.00390	1	01/28/24 16:09	01/29/24 00:19	72-20-8	
Endrin aldehyde	**<0.00378**	mg/kg	0.0126	0.00378	1	01/28/24 16:09	01/29/24 00:19	7421-93-4	
Endrin ketone	**<0.00792**	mg/kg	0.0264	0.00792	1	01/28/24 16:09	01/29/24 00:19	53494-70-5	
Hexachlorobenzene	**<0.00386**	mg/kg	0.0128	0.00386	1	01/28/24 16:09	01/29/24 00:19	118-74-1	
Heptachlor	**<0.00477**	mg/kg	0.0159	0.00477	1	01/28/24 16:09	01/29/24 00:19	76-44-8	
Heptachlor epoxide	**<0.00378**	mg/kg	0.0126	0.00378	1	01/28/24 16:09	01/29/24 00:19	1024-57-3	
Methoxychlor	**<0.00539**	mg/kg	0.0179	0.00539	1	01/28/24 16:09	01/29/24 00:19	72-43-5	
Toxaphene	**<0.138**	mg/kg	0.460	0.138	1	01/28/24 16:09	01/29/24 00:19	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	47.3	%	10.0-135		1	01/28/24 16:09	01/29/24 00:19	2051-24-3	
Tetrachloro-m-xylene (S)	50.7	%	10.0-139		1	01/28/24 16:09	01/29/24 00:19	877-09-8	
Chlorinated Herb. (GC) 8151A	Analytical Method: EPA 8151A Preparation Method: 8151A Pace National - Mt. Juliet								
2,4-D	**<0.00782**	mg/kg	0.0261	0.00782	1	01/27/24 03:31	01/31/24 03:24	94-75-7	L0
Dalapon	**<0.0126**	mg/kg	0.0420	0.0126	1	01/27/24 03:31	01/31/24 03:24	127-20-8	
2,4-DB	**<0.0331**	mg/kg	0.110	0.0331	1	01/27/24 03:31	01/31/24 03:24	94-82-6	
Dicamba	**<0.0175**	mg/kg	0.0583	0.0175	1	01/27/24 03:31	01/31/24 03:24	1918-00-9	
Dichlorprop	**<0.0273**	mg/kg	0.0910	0.0273	1	01/27/24 03:31	01/31/24 03:24	120-36-5	
Dinoseb	**<0.00777**	mg/kg	0.0259	0.00777	1	01/27/24 03:31	01/31/24 03:24	88-85-7	
MCPA	**<0.494**	mg/kg	1.65	0.494	1	01/27/24 03:31	01/31/24 03:24	94-74-6	
2-(2-methyl-4-chlorophenoxy)pa	**<0.409**	mg/kg	1.36	0.409	1	01/27/24 03:31	01/31/24 03:24	93-65-2	
2,4,5-T	**<0.00949**	mg/kg	0.0316	0.00949	1	01/27/24 03:31	01/31/24 03:24	93-76-5	
2,4,5-TP (Silvex)	**<0.0119**	mg/kg	0.0398	0.0119	1	01/27/24 03:31	01/31/24 03:24	93-72-1	
Surrogates									
2,4-DCAA (S)	79.3	%	22.0-132		1	01/27/24 03:31	01/31/24 03:24	19719-28-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-04-05-06 **Lab ID: 40273365004** Collected: 01/17/24 11:45 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.9**	ug/kg	55.6	16.9	1	01/23/24 12:00	01/23/24 20:02	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.9**	ug/kg	55.6	16.9	1	01/23/24 12:00	01/23/24 20:02	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.9**	ug/kg	55.6	16.9	1	01/23/24 12:00	01/23/24 20:02	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.9**	ug/kg	55.6	16.9	1	01/23/24 12:00	01/23/24 20:02	53469-21-9	
PCB-1248 (Aroclor 1248)	**<16.9**	ug/kg	55.6	16.9	1	01/23/24 12:00	01/23/24 20:02	12672-29-6	
PCB-1254 (Aroclor 1254)	**<16.9**	ug/kg	55.6	16.9	1	01/23/24 12:00	01/23/24 20:02	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.9**	ug/kg	55.6	16.9	1	01/23/24 12:00	01/23/24 20:02	11096-82-5	
PCB, Total	**<16.9**	ug/kg	55.6	16.9	1	01/23/24 12:00	01/23/24 20:02	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	89	%	44-120		1	01/23/24 12:00	01/23/24 20:02	877-09-8	
Decachlorobiphenyl (S)	94	%	34-120		1	01/23/24 12:00	01/23/24 20:02	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**<1.6**	mg/kg	2.7	1.6	1	01/23/24 06:13	01/23/24 15:55	7440-38-2	
Barium	**32.7**	mg/kg	0.55	0.16	1	01/23/24 06:13	01/23/24 15:55	7440-39-3	
Cadmium	**<0.15**	mg/kg	0.55	0.15	1	01/23/24 06:13	01/23/24 15:55	7440-43-9	
Chromium	**12.2**	mg/kg	1.1	0.30	1	01/23/24 06:13	01/23/24 15:55	7440-47-3	
Lead	**2.1J**	mg/kg	2.2	0.66	1	01/23/24 06:13	01/23/24 15:55	7439-92-1	
Selenium	**<1.4**	mg/kg	4.4	1.4	1	01/23/24 06:13	01/23/24 15:55	7782-49-2	
Silver	**<0.34**	mg/kg	1.1	0.34	1	01/23/24 06:13	01/23/24 15:55	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**<0.010**	mg/kg	0.035	0.010	1	01/31/24 11:02	02/01/24 13:41	7439-97-6	
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.4**	ug/kg	18.5	2.4	1	01/26/24 07:55	01/26/24 14:13	83-32-9	
Acenaphthylene	**<2.3**	ug/kg	18.5	2.3	1	01/26/24 07:55	01/26/24 14:13	208-96-8	
Anthracene	**<2.3**	ug/kg	18.5	2.3	1	01/26/24 07:55	01/26/24 14:13	120-12-7	
Benzo(a)anthracene	**5.5J**	ug/kg	18.5	2.4	1	01/26/24 07:55	01/26/24 14:13	56-55-3	
Benzo(a)pyrene	**10.3J**	ug/kg	18.5	2.1	1	01/26/24 07:55	01/26/24 14:13	50-32-8	
Benzo(b)fluoranthene	**14.8J**	ug/kg	18.5	2.6	1	01/26/24 07:55	01/26/24 14:13	205-99-2	
Benzo(g,h,i)perylene	**17.2J**	ug/kg	18.5	3.3	1	01/26/24 07:55	01/26/24 14:13	191-24-2	
Benzo(k)fluoranthene	**7.6J**	ug/kg	18.5	2.4	1	01/26/24 07:55	01/26/24 14:13	207-08-9	
Chrysene	**8.2J**	ug/kg	18.5	3.5	1	01/26/24 07:55	01/26/24 14:13	218-01-9	
Dibenz(a,h)anthracene	**<2.6**	ug/kg	18.5	2.6	1	01/26/24 07:55	01/26/24 14:13	53-70-3	
Fluoranthene	**8.2J**	ug/kg	18.5	2.2	1	01/26/24 07:55	01/26/24 14:13	206-44-0	
Fluorene	**<2.2**	ug/kg	18.5	2.2	1	01/26/24 07:55	01/26/24 14:13	86-73-7	
Indeno(1,2,3-cd)pyrene	**12.6J**	ug/kg	18.5	3.9	1	01/26/24 07:55	01/26/24 14:13	193-39-5	
1-Methylnaphthalene	**<2.7**	ug/kg	18.5	2.7	1	01/26/24 07:55	01/26/24 14:13	90-12-0	
2-Methylnaphthalene	**<2.7**	ug/kg	18.5	2.7	1	01/26/24 07:55	01/26/24 14:13	91-57-6	
Naphthalene	**<1.8**	ug/kg	18.5	1.8	1	01/26/24 07:55	01/26/24 14:13	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-04-05-06 **Lab ID: 40273365004** Collected: 01/17/24 11:45 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Phenanthrene	**<2.1**	ug/kg	18.5	2.1	1	01/26/24 07:55	01/26/24 14:13	85-01-8	
Pyrene	**8.1J**	ug/kg	18.5	2.7	1	01/26/24 07:55	01/26/24 14:13	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	54	%	39-120		1	01/26/24 07:55	01/26/24 14:13	321-60-8	
Terphenyl-d14 (S)	68	%	36-120		1	01/26/24 07:55	01/26/24 14:13	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<14.7**	ug/kg	61.1	14.7	1	01/23/24 08:15	01/23/24 15:41	630-20-6	
1,1,1-Trichloroethane	**<15.6**	ug/kg	61.1	15.6	1	01/23/24 08:15	01/23/24 15:41	71-55-6	
1,1,2,2-Tetrachloroethane	**<22.1**	ug/kg	61.1	22.1	1	01/23/24 08:15	01/23/24 15:41	79-34-5	
1,1,2-Trichloroethane	**<22.3**	ug/kg	61.1	22.3	1	01/23/24 08:15	01/23/24 15:41	79-00-5	
1,1-Dichloroethane	**<15.6**	ug/kg	61.1	15.6	1	01/23/24 08:15	01/23/24 15:41	75-34-3	
1,1-Dichloroethene	**<20.3**	ug/kg	61.1	20.3	1	01/23/24 08:15	01/23/24 15:41	75-35-4	
1,1-Dichloropropene	**<19.8**	ug/kg	61.1	19.8	1	01/23/24 08:15	01/23/24 15:41	563-58-6	
1,2,3-Trichlorobenzene	**<68.1**	ug/kg	306	68.1	1	01/23/24 08:15	01/23/24 15:41	87-61-6	
1,2,3-Trichloropropane	**<29.7**	ug/kg	61.1	29.7	1	01/23/24 08:15	01/23/24 15:41	96-18-4	
1,2,4-Trichlorobenzene	**<50.4**	ug/kg	306	50.4	1	01/23/24 08:15	01/23/24 15:41	120-82-1	
1,2,4-Trimethylbenzene	**<18.2**	ug/kg	61.1	18.2	1	01/23/24 08:15	01/23/24 15:41	95-63-6	
1,2-Dibromo-3-chloropropane	**<47.4**	ug/kg	306	47.4	1	01/23/24 08:15	01/23/24 15:41	96-12-8	
1,2-Dibromoethane (EDB)	**<16.7**	ug/kg	61.1	16.7	1	01/23/24 08:15	01/23/24 15:41	106-93-4	
1,2-Dichlorobenzene	**<18.9**	ug/kg	61.1	18.9	1	01/23/24 08:15	01/23/24 15:41	95-50-1	
1,2-Dichloroethane	**<14.1**	ug/kg	61.1	14.1	1	01/23/24 08:15	01/23/24 15:41	107-06-2	
1,2-Dichloropropane	**<14.5**	ug/kg	61.1	14.5	1	01/23/24 08:15	01/23/24 15:41	78-87-5	
1,3,5-Trimethylbenzene	**<19.7**	ug/kg	61.1	19.7	1	01/23/24 08:15	01/23/24 15:41	108-67-8	
1,3-Dichlorobenzene	**<16.7**	ug/kg	61.1	16.7	1	01/23/24 08:15	01/23/24 15:41	541-73-1	
1,3-Dichloropropane	**<13.3**	ug/kg	61.1	13.3	1	01/23/24 08:15	01/23/24 15:41	142-28-9	
1,4-Dichlorobenzene	**<16.7**	ug/kg	61.1	16.7	1	01/23/24 08:15	01/23/24 15:41	106-46-7	
2,2-Dichloropropane	**<16.5**	ug/kg	61.1	16.5	1	01/23/24 08:15	01/23/24 15:41	594-20-7	
2-Chlorotoluene	**<19.8**	ug/kg	61.1	19.8	1	01/23/24 08:15	01/23/24 15:41	95-49-8	
4-Chlorotoluene	**<23.2**	ug/kg	61.1	23.2	1	01/23/24 08:15	01/23/24 15:41	106-43-4	
Benzene	**<14.5**	ug/kg	24.5	14.5	1	01/23/24 08:15	01/23/24 15:41	71-43-2	
Bromobenzene	**<23.8**	ug/kg	61.1	23.8	1	01/23/24 08:15	01/23/24 15:41	108-86-1	
Bromochloromethane	**<16.7**	ug/kg	61.1	16.7	1	01/23/24 08:15	01/23/24 15:41	74-97-5	
Bromodichloromethane	**<14.5**	ug/kg	61.1	14.5	1	01/23/24 08:15	01/23/24 15:41	75-27-4	
Bromoform	**<269**	ug/kg	306	269	1	01/23/24 08:15	01/23/24 15:41	75-25-2	
Bromomethane	**<85.7**	ug/kg	306	85.7	1	01/23/24 08:15	01/23/24 15:41	74-83-9	
Carbon tetrachloride	**<13.4**	ug/kg	61.1	13.4	1	01/23/24 08:15	01/23/24 15:41	56-23-5	
Chlorobenzene	**<7.3**	ug/kg	61.1	7.3	1	01/23/24 08:15	01/23/24 15:41	108-90-7	
Chloroethane	**<25.8**	ug/kg	306	25.8	1	01/23/24 08:15	01/23/24 15:41	75-00-3	
Chloroform	**<43.8**	ug/kg	306	43.8	1	01/23/24 08:15	01/23/24 15:41	67-66-3	
Chloromethane	**<23.2**	ug/kg	61.1	23.2	1	01/23/24 08:15	01/23/24 15:41	74-87-3	
Dibromochloromethane	**<209**	ug/kg	306	209	1	01/23/24 08:15	01/23/24 15:41	124-48-1	
Dibromomethane	**<18.1**	ug/kg	61.1	18.1	1	01/23/24 08:15	01/23/24 15:41	74-95-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-04-05-06 **Lab ID: 40273365004** Collected: 01/17/24 11:45 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Dichlorodifluoromethane	**<26.3**	ug/kg	61.1	26.3	1	01/23/24 08:15	01/23/24 15:41	75-71-8	
Diisopropyl ether	**<15.2**	ug/kg	61.1	15.2	1	01/23/24 08:15	01/23/24 15:41	108-20-3	
Ethylbenzene	**<14.5**	ug/kg	61.1	14.5	1	01/23/24 08:15	01/23/24 15:41	100-41-4	
Hexachloro-1,3-butadiene	**<122**	ug/kg	306	122	1	01/23/24 08:15	01/23/24 15:41	87-68-3	
Isopropylbenzene (Cumene)	**<16.5**	ug/kg	61.1	16.5	1	01/23/24 08:15	01/23/24 15:41	98-82-8	
Methyl-tert-butyl ether	**<18.0**	ug/kg	61.1	18.0	1	01/23/24 08:15	01/23/24 15:41	1634-04-4	
Methylene Chloride	**<17.0**	ug/kg	61.1	17.0	1	01/23/24 08:15	01/23/24 15:41	75-09-2	
Naphthalene	**<25.7**	ug/kg	306	25.7	1	01/23/24 08:15	01/23/24 15:41	91-20-3	
Styrene	**<15.6**	ug/kg	61.1	15.6	1	01/23/24 08:15	01/23/24 15:41	100-42-5	
Tetrachloroethene	**<23.7**	ug/kg	61.1	23.7	1	01/23/24 08:15	01/23/24 15:41	127-18-4	
Toluene	**<15.4**	ug/kg	61.1	15.4	1	01/23/24 08:15	01/23/24 15:41	108-88-3	
Trichloroethene	**<22.9**	ug/kg	61.1	22.9	1	01/23/24 08:15	01/23/24 15:41	79-01-6	
Trichlorofluoromethane	**<17.7**	ug/kg	61.1	17.7	1	01/23/24 08:15	01/23/24 15:41	75-69-4	
Vinyl chloride	**<12.3**	ug/kg	61.1	12.3	1	01/23/24 08:15	01/23/24 15:41	75-01-4	
cis-1,2-Dichloroethene	**<13.1**	ug/kg	61.1	13.1	1	01/23/24 08:15	01/23/24 15:41	156-59-2	
cis-1,3-Dichloropropene	**<40.3**	ug/kg	306	40.3	1	01/23/24 08:15	01/23/24 15:41	10061-01-5	
m&p-Xylene	**<25.8**	ug/kg	122	25.8	1	01/23/24 08:15	01/23/24 15:41	179601-23-1	
n-Butylbenzene	**<28.0**	ug/kg	61.1	28.0	1	01/23/24 08:15	01/23/24 15:41	104-51-8	
n-Propylbenzene	**<14.7**	ug/kg	61.1	14.7	1	01/23/24 08:15	01/23/24 15:41	103-65-1	
o-Xylene	**<18.3**	ug/kg	61.1	18.3	1	01/23/24 08:15	01/23/24 15:41	95-47-6	
p-Isopropyltoluene	**<20.8**	ug/kg	61.1	20.8	1	01/23/24 08:15	01/23/24 15:41	99-87-6	
sec-Butylbenzene	**<21.0**	ug/kg	61.1	21.0	1	01/23/24 08:15	01/23/24 15:41	135-98-8	
tert-Butylbenzene	**<19.2**	ug/kg	61.1	19.2	1	01/23/24 08:15	01/23/24 15:41	98-06-6	
trans-1,2-Dichloroethene	**<13.4**	ug/kg	61.1	13.4	1	01/23/24 08:15	01/23/24 15:41	156-60-5	
trans-1,3-Dichloropropene	**<175**	ug/kg	306	175	1	01/23/24 08:15	01/23/24 15:41	10061-02-6	
Surrogates									
Toluene-d8 (S)	115	%	70-139		1	01/23/24 08:15	01/23/24 15:41	2037-26-5	
4-Bromofluorobenzene (S)	117	%	72-142		1	01/23/24 08:15	01/23/24 15:41	460-00-4	
1,2-Dichlorobenzene-d4 (S)	122	%	67-144		1	01/23/24 08:15	01/23/24 15:41	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**10.0**	%	0.10	0.10	1		01/22/24 17:47		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**89.7**	%			1	01/27/24 10:45	01/27/24 11:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-05-02-03 **Lab ID: 40273365005** Collected: 01/17/24 12:00 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Pesticides (GC) 8081B	Analytical Method: EPA 8081B Preparation Method: 3546/3665A Pace National - Mt. Juliet								
Aldrin	**<0.00442**	mg/kg	0.0147	0.00442	1	01/28/24 16:09	01/29/24 00:28	309-00-2	
alpha-BHC	**<0.00432**	mg/kg	0.0145	0.00432	1	01/28/24 16:09	01/29/24 00:28	319-84-6	
beta-BHC	**<0.00445**	mg/kg	0.0148	0.00445	1	01/28/24 16:09	01/29/24 00:28	319-85-7	
delta-BHC	**<0.00407**	mg/kg	0.0135	0.00407	1	01/28/24 16:09	01/29/24 00:28	319-86-8	
gamma-BHC (Lindane)	**<0.00404**	mg/kg	0.0135	0.00404	1	01/28/24 16:09	01/29/24 00:28	58-89-9	
Chlordane (Technical)	**<0.121**	mg/kg	0.403	0.121	1	01/28/24 16:09	01/29/24 00:28	57-74-9	
alpha-Chlordane	**<0.00166**	mg/kg	0.00552	0.00166	1	01/28/24 16:09	01/29/24 00:28	5103-71-9	
gamma-Chlordane	**<0.00230**	mg/kg	0.00767	0.00230	1	01/28/24 16:09	01/29/24 00:28	5103-74-2	
4,4'-DDD	**<0.00435**	mg/kg	0.0145	0.00435	1	01/28/24 16:09	01/29/24 00:28	72-54-8	
4,4'-DDE	**<0.00430**	mg/kg	0.0143	0.00430	1	01/28/24 16:09	01/29/24 00:28	72-55-9	
4,4'-DDT	**<0.00737**	mg/kg	0.0246	0.00737	1	01/28/24 16:09	01/29/24 00:28	50-29-3	
Dieldrin	**<0.00404**	mg/kg	0.0135	0.00404	1	01/28/24 16:09	01/29/24 00:28	60-57-1	
Endosulfan I	**<0.00427**	mg/kg	0.0142	0.00427	1	01/28/24 16:09	01/29/24 00:28	959-98-8	
Endosulfan II	**<0.00394**	mg/kg	0.0132	0.00394	1	01/28/24 16:09	01/29/24 00:28	33213-65-9	
Endosulfan sulfate	**<0.00428**	mg/kg	0.0142	0.00428	1	01/28/24 16:09	01/29/24 00:28	1031-07-8	
Endrin	**<0.00411**	mg/kg	0.0137	0.00411	1	01/28/24 16:09	01/29/24 00:28	72-20-8	
Endrin aldehyde	**<0.00398**	mg/kg	0.0133	0.00398	1	01/28/24 16:09	01/29/24 00:28	7421-93-4	
Endrin ketone	**<0.00835**	mg/kg	0.0278	0.00835	1	01/28/24 16:09	01/29/24 00:28	53494-70-5	
Hexachlorobenzene	**<0.00407**	mg/kg	0.0135	0.00407	1	01/28/24 16:09	01/29/24 00:28	118-74-1	
Heptachlor	**<0.00503**	mg/kg	0.0168	0.00503	1	01/28/24 16:09	01/29/24 00:28	76-44-8	
Heptachlor epoxide	**<0.00398**	mg/kg	0.0133	0.00398	1	01/28/24 16:09	01/29/24 00:28	1024-57-3	
Methoxychlor	**<0.00569**	mg/kg	0.0189	0.00569	1	01/28/24 16:09	01/29/24 00:28	72-43-5	
Toxaphene	**<0.146**	mg/kg	0.485	0.146	1	01/28/24 16:09	01/29/24 00:28	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	56.8	%	10.0-135		1	01/28/24 16:09	01/29/24 00:28	2051-24-3	
Tetrachloro-m-xylene (S)	63.6	%	10.0-139		1	01/28/24 16:09	01/29/24 00:28	877-09-8	
Chlorinated Herb. (GC) 8151A	Analytical Method: EPA 8151A Preparation Method: 8151A Pace National - Mt. Juliet								
2,4-D	**<0.00825**	mg/kg	0.0275	0.00825	1	01/29/24 03:25	02/01/24 05:34	94-75-7	
Dalapon	**<0.0133**	mg/kg	0.0443	0.0133	1	01/29/24 03:25	02/01/24 05:34	127-20-8	
2,4-DB	**<0.0349**	mg/kg	0.116	0.0349	1	01/29/24 03:25	02/01/24 05:34	94-82-6	
Dicamba	**<0.0184**	mg/kg	0.0615	0.0184	1	01/29/24 03:25	02/01/24 05:34	1918-00-9	
Dichlorprop	**<0.0288**	mg/kg	0.0960	0.0288	1	01/29/24 03:25	02/01/24 05:34	120-36-5	
Dinoseb	**<0.00819**	mg/kg	0.0273	0.00819	1	01/29/24 03:25	02/01/24 05:34	88-85-7	
MCPA	**<0.521**	mg/kg	1.74	0.521	1	01/29/24 03:25	02/01/24 05:34	94-74-6	
2-(2-methyl-4-chlorophenoxy)pa	**<0.431**	mg/kg	1.43	0.431	1	01/29/24 03:25	02/01/24 05:34	93-65-2	
2,4,5-T	**<0.0100**	mg/kg	0.0334	0.0100	1	01/29/24 03:25	02/01/24 05:34	93-76-5	
2,4,5-TP (Silvex)	**<0.0126**	mg/kg	0.0419	0.0126	1	01/29/24 03:25	02/01/24 05:34	93-72-1	
Surrogates									
2,4-DCAA (S)	58.9	%	22.0-132		1	01/29/24 03:25	02/01/24 05:34	19719-28-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-05-02-03 **Lab ID: 40273365005** Collected: 01/17/24 12:00 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<18.2**	ug/kg	59.8	18.2	1	01/23/24 12:00	01/23/24 20:26	12674-11-2	
PCB-1221 (Aroclor 1221)	**<18.2**	ug/kg	59.8	18.2	1	01/23/24 12:00	01/23/24 20:26	11104-28-2	
PCB-1232 (Aroclor 1232)	**<18.2**	ug/kg	59.8	18.2	1	01/23/24 12:00	01/23/24 20:26	11141-16-5	
PCB-1242 (Aroclor 1242)	**<18.2**	ug/kg	59.8	18.2	1	01/23/24 12:00	01/23/24 20:26	53469-21-9	
PCB-1248 (Aroclor 1248)	**<18.2**	ug/kg	59.8	18.2	1	01/23/24 12:00	01/23/24 20:26	12672-29-6	
PCB-1254 (Aroclor 1254)	**<18.2**	ug/kg	59.8	18.2	1	01/23/24 12:00	01/23/24 20:26	11097-69-1	
PCB-1260 (Aroclor 1260)	**<18.2**	ug/kg	59.8	18.2	1	01/23/24 12:00	01/23/24 20:26	11096-82-5	
PCB, Total	**<18.2**	ug/kg	59.8	18.2	1	01/23/24 12:00	01/23/24 20:26	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	88	%	44-120		1	01/23/24 12:00	01/23/24 20:26	877-09-8	
Decachlorobiphenyl (S)	93	%	34-120		1	01/23/24 12:00	01/23/24 20:26	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**5.2**	mg/kg	2.8	1.6	1	01/23/24 06:13	01/23/24 15:57	7440-38-2	
Barium	**90.3**	mg/kg	0.56	0.17	1	01/23/24 06:13	01/23/24 15:57	7440-39-3	
Cadmium	**<0.15**	mg/kg	0.56	0.15	1	01/23/24 06:13	01/23/24 15:57	7440-43-9	
Chromium	**22.1**	mg/kg	1.1	0.31	1	01/23/24 06:13	01/23/24 15:57	7440-47-3	
Lead	**8.3**	mg/kg	2.2	0.67	1	01/23/24 06:13	01/23/24 15:57	7439-92-1	
Selenium	**<1.5**	mg/kg	4.5	1.5	1	01/23/24 06:13	01/23/24 15:57	7782-49-2	
Silver	**<0.34**	mg/kg	1.1	0.34	1	01/23/24 06:13	01/23/24 15:57	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**0.031J**	mg/kg	0.040	0.011	1	01/31/24 11:02	02/01/24 13:03	7439-97-6	
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.6**	ug/kg	20.0	2.6	1	01/26/24 07:55	01/26/24 14:30	83-32-9	
Acenaphthylene	**<2.5**	ug/kg	20.0	2.5	1	01/26/24 07:55	01/26/24 14:30	208-96-8	
Anthracene	**<2.5**	ug/kg	20.0	2.5	1	01/26/24 07:55	01/26/24 14:30	120-12-7	
Benzo(a)anthracene	**<2.6**	ug/kg	20.0	2.6	1	01/26/24 07:55	01/26/24 14:30	56-55-3	
Benzo(a)pyrene	**<2.3**	ug/kg	20.0	2.3	1	01/26/24 07:55	01/26/24 14:30	50-32-8	
Benzo(b)fluoranthene	**<2.8**	ug/kg	20.0	2.8	1	01/26/24 07:55	01/26/24 14:30	205-99-2	
Benzo(g,h,i)perylene	**<3.5**	ug/kg	20.0	3.5	1	01/26/24 07:55	01/26/24 14:30	191-24-2	
Benzo(k)fluoranthene	**<2.6**	ug/kg	20.0	2.6	1	01/26/24 07:55	01/26/24 14:30	207-08-9	
Chrysene	**<3.8**	ug/kg	20.0	3.8	1	01/26/24 07:55	01/26/24 14:30	218-01-9	
Dibenz(a,h)anthracene	**<2.8**	ug/kg	20.0	2.8	1	01/26/24 07:55	01/26/24 14:30	53-70-3	
Fluoranthene	**<2.4**	ug/kg	20.0	2.4	1	01/26/24 07:55	01/26/24 14:30	206-44-0	
Fluorene	**<2.4**	ug/kg	20.0	2.4	1	01/26/24 07:55	01/26/24 14:30	86-73-7	
Indeno(1,2,3-cd)pyrene	**<4.2**	ug/kg	20.0	4.2	1	01/26/24 07:55	01/26/24 14:30	193-39-5	
1-Methylnaphthalene	**<2.9**	ug/kg	20.0	2.9	1	01/26/24 07:55	01/26/24 14:30	90-12-0	
2-Methylnaphthalene	**<2.9**	ug/kg	20.0	2.9	1	01/26/24 07:55	01/26/24 14:30	91-57-6	
Naphthalene	**<1.9**	ug/kg	20.0	1.9	1	01/26/24 07:55	01/26/24 14:30	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-05-02-03 **Lab ID: 40273365005** Collected: 01/17/24 12:00 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Phenanthrene	**<2.3**	ug/kg	20.0	2.3	1	01/26/24 07:55	01/26/24 14:30	85-01-8	
Pyrene	**<2.9**	ug/kg	20.0	2.9	1	01/26/24 07:55	01/26/24 14:30	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	53	%	39-120		1	01/26/24 07:55	01/26/24 14:30	321-60-8	
Terphenyl-d14 (S)	63	%	36-120		1	01/26/24 07:55	01/26/24 14:30	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<16.7**	ug/kg	69.8	16.7	1	01/23/24 08:15	01/23/24 16:00	630-20-6	
1,1,1-Trichloroethane	**<17.9**	ug/kg	69.8	17.9	1	01/23/24 08:15	01/23/24 16:00	71-55-6	
1,1,2,2-Tetrachloroethane	**<25.3**	ug/kg	69.8	25.3	1	01/23/24 08:15	01/23/24 16:00	79-34-5	
1,1,2-Trichloroethane	**<25.4**	ug/kg	69.8	25.4	1	01/23/24 08:15	01/23/24 16:00	79-00-5	
1,1-Dichloroethane	**<17.9**	ug/kg	69.8	17.9	1	01/23/24 08:15	01/23/24 16:00	75-34-3	
1,1-Dichloroethene	**<23.2**	ug/kg	69.8	23.2	1	01/23/24 08:15	01/23/24 16:00	75-35-4	
1,1-Dichloropropene	**<22.6**	ug/kg	69.8	22.6	1	01/23/24 08:15	01/23/24 16:00	563-58-6	
1,2,3-Trichlorobenzene	**<77.7**	ug/kg	349	77.7	1	01/23/24 08:15	01/23/24 16:00	87-61-6	
1,2,3-Trichloropropane	**<33.9**	ug/kg	69.8	33.9	1	01/23/24 08:15	01/23/24 16:00	96-18-4	
1,2,4-Trichlorobenzene	**<57.5**	ug/kg	349	57.5	1	01/23/24 08:15	01/23/24 16:00	120-82-1	
1,2,4-Trimethylbenzene	**<20.8**	ug/kg	69.8	20.8	1	01/23/24 08:15	01/23/24 16:00	95-63-6	
1,2-Dibromo-3-chloropropane	**<54.1**	ug/kg	349	54.1	1	01/23/24 08:15	01/23/24 16:00	96-12-8	
1,2-Dibromoethane (EDB)	**<19.1**	ug/kg	69.8	19.1	1	01/23/24 08:15	01/23/24 16:00	106-93-4	
1,2-Dichlorobenzene	**<21.6**	ug/kg	69.8	21.6	1	01/23/24 08:15	01/23/24 16:00	95-50-1	
1,2-Dichloroethane	**<16.0**	ug/kg	69.8	16.0	1	01/23/24 08:15	01/23/24 16:00	107-06-2	
1,2-Dichloropropane	**<16.6**	ug/kg	69.8	16.6	1	01/23/24 08:15	01/23/24 16:00	78-87-5	
1,3,5-Trimethylbenzene	**<22.5**	ug/kg	69.8	22.5	1	01/23/24 08:15	01/23/24 16:00	108-67-8	
1,3-Dichlorobenzene	**<19.1**	ug/kg	69.8	19.1	1	01/23/24 08:15	01/23/24 16:00	541-73-1	
1,3-Dichloropropane	**<15.2**	ug/kg	69.8	15.2	1	01/23/24 08:15	01/23/24 16:00	142-28-9	
1,4-Dichlorobenzene	**<19.1**	ug/kg	69.8	19.1	1	01/23/24 08:15	01/23/24 16:00	106-46-7	
2,2-Dichloropropane	**<18.8**	ug/kg	69.8	18.8	1	01/23/24 08:15	01/23/24 16:00	594-20-7	
2-Chlorotoluene	**<22.6**	ug/kg	69.8	22.6	1	01/23/24 08:15	01/23/24 16:00	95-49-8	
4-Chlorotoluene	**<26.5**	ug/kg	69.8	26.5	1	01/23/24 08:15	01/23/24 16:00	106-43-4	
Benzene	**<16.6**	ug/kg	27.9	16.6	1	01/23/24 08:15	01/23/24 16:00	71-43-2	
Bromobenzene	**<27.2**	ug/kg	69.8	27.2	1	01/23/24 08:15	01/23/24 16:00	108-86-1	
Bromochloromethane	**<19.1**	ug/kg	69.8	19.1	1	01/23/24 08:15	01/23/24 16:00	74-97-5	
Bromodichloromethane	**<16.6**	ug/kg	69.8	16.6	1	01/23/24 08:15	01/23/24 16:00	75-27-4	
Bromoform	**<307**	ug/kg	349	307	1	01/23/24 08:15	01/23/24 16:00	75-25-2	
Bromomethane	**<97.8**	ug/kg	349	97.8	1	01/23/24 08:15	01/23/24 16:00	74-83-9	
Carbon tetrachloride	**<15.4**	ug/kg	69.8	15.4	1	01/23/24 08:15	01/23/24 16:00	56-23-5	
Chlorobenzene	**<8.4**	ug/kg	69.8	8.4	1	01/23/24 08:15	01/23/24 16:00	108-90-7	
Chloroethane	**<29.4**	ug/kg	349	29.4	1	01/23/24 08:15	01/23/24 16:00	75-00-3	
Chloroform	**<50.0**	ug/kg	349	50.0	1	01/23/24 08:15	01/23/24 16:00	67-66-3	
Chloromethane	**<26.5**	ug/kg	69.8	26.5	1	01/23/24 08:15	01/23/24 16:00	74-87-3	
Dibromochloromethane	**<239**	ug/kg	349	239	1	01/23/24 08:15	01/23/24 16:00	124-48-1	
Dibromomethane	**<20.7**	ug/kg	69.8	20.7	1	01/23/24 08:15	01/23/24 16:00	74-95-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-05-02-03 **Lab ID: 40273365005** Collected: 01/17/24 12:00 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Dichlorodifluoromethane	**<30.0**	ug/kg	69.8	30.0	1	01/23/24 08:15	01/23/24 16:00	75-71-8	
Diisopropyl ether	**<17.3**	ug/kg	69.8	17.3	1	01/23/24 08:15	01/23/24 16:00	108-20-3	
Ethylbenzene	**<16.6**	ug/kg	69.8	16.6	1	01/23/24 08:15	01/23/24 16:00	100-41-4	
Hexachloro-1,3-butadiene	**<139**	ug/kg	349	139	1	01/23/24 08:15	01/23/24 16:00	87-68-3	
Isopropylbenzene (Cumene)	**<18.8**	ug/kg	69.8	18.8	1	01/23/24 08:15	01/23/24 16:00	98-82-8	
Methyl-tert-butyl ether	**<20.5**	ug/kg	69.8	20.5	1	01/23/24 08:15	01/23/24 16:00	1634-04-4	
Methylene Chloride	**<19.4**	ug/kg	69.8	19.4	1	01/23/24 08:15	01/23/24 16:00	75-09-2	
Naphthalene	**<29.3**	ug/kg	349	29.3	1	01/23/24 08:15	01/23/24 16:00	91-20-3	
Styrene	**<17.9**	ug/kg	69.8	17.9	1	01/23/24 08:15	01/23/24 16:00	100-42-5	
Tetrachloroethene	**<27.1**	ug/kg	69.8	27.1	1	01/23/24 08:15	01/23/24 16:00	127-18-4	
Toluene	**<17.6**	ug/kg	69.8	17.6	1	01/23/24 08:15	01/23/24 16:00	108-88-3	
Trichloroethene	**<26.1**	ug/kg	69.8	26.1	1	01/23/24 08:15	01/23/24 16:00	79-01-6	
Trichlorofluoromethane	**<20.2**	ug/kg	69.8	20.2	1	01/23/24 08:15	01/23/24 16:00	75-69-4	
Vinyl chloride	**<14.1**	ug/kg	69.8	14.1	1	01/23/24 08:15	01/23/24 16:00	75-01-4	
cis-1,2-Dichloroethene	**<14.9**	ug/kg	69.8	14.9	1	01/23/24 08:15	01/23/24 16:00	156-59-2	
cis-1,3-Dichloropropene	**<46.1**	ug/kg	349	46.1	1	01/23/24 08:15	01/23/24 16:00	10061-01-5	
m&p-Xylene	**<29.4**	ug/kg	140	29.4	1	01/23/24 08:15	01/23/24 16:00	179601-23-1	
n-Butylbenzene	**<32.0**	ug/kg	69.8	32.0	1	01/23/24 08:15	01/23/24 16:00	104-51-8	
n-Propylbenzene	**<16.7**	ug/kg	69.8	16.7	1	01/23/24 08:15	01/23/24 16:00	103-65-1	
o-Xylene	**<20.9**	ug/kg	69.8	20.9	1	01/23/24 08:15	01/23/24 16:00	95-47-6	
p-Isopropyltoluene	**<23.7**	ug/kg	69.8	23.7	1	01/23/24 08:15	01/23/24 16:00	99-87-6	
sec-Butylbenzene	**<23.9**	ug/kg	69.8	23.9	1	01/23/24 08:15	01/23/24 16:00	135-98-8	
tert-Butylbenzene	**<21.9**	ug/kg	69.8	21.9	1	01/23/24 08:15	01/23/24 16:00	98-06-6	
trans-1,2-Dichloroethene	**<15.3**	ug/kg	69.8	15.3	1	01/23/24 08:15	01/23/24 16:00	156-60-5	
trans-1,3-Dichloropropene	**<200**	ug/kg	349	200	1	01/23/24 08:15	01/23/24 16:00	10061-02-6	
Surrogates									
Toluene-d8 (S)	115	%	70-139		1	01/23/24 08:15	01/23/24 16:00	2037-26-5	
4-Bromofluorobenzene (S)	121	%	72-142		1	01/23/24 08:15	01/23/24 16:00	460-00-4	
1,2-Dichlorobenzene-d4 (S)	127	%	67-144		1	01/23/24 08:15	01/23/24 16:00	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**16.5**	%	0.10	0.10	1		01/22/24 17:47		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**85.1**	%			1	01/27/24 10:45	01/27/24 11:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-06-02-03 **Lab ID: 40273365006** Collected: 01/17/24 12:40 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Pesticides (GC) 8081B	Analytical Method: EPA 8081B Preparation Method: 3546/3665A Pace National - Mt. Juliet								
Aldrin	**<0.00398**	mg/kg	0.0132	0.00398	1	01/28/24 16:09	01/29/24 00:37	309-00-2	
alpha-BHC	**<0.00389**	mg/kg	0.0130	0.00389	1	01/28/24 16:09	01/29/24 00:37	319-84-6	
beta-BHC	**<0.00401**	mg/kg	0.0133	0.00401	1	01/28/24 16:09	01/29/24 00:37	319-85-7	
delta-BHC	**<0.00366**	mg/kg	0.0122	0.00366	1	01/28/24 16:09	01/29/24 00:37	319-86-8	
gamma-BHC (Lindane)	**<0.00364**	mg/kg	0.0122	0.00364	1	01/28/24 16:09	01/29/24 00:37	58-89-9	
Chlordane (Technical)	**<0.109**	mg/kg	0.363	0.109	1	01/28/24 16:09	01/29/24 00:37	57-74-9	
alpha-Chlordane	**<0.00149**	mg/kg	0.00497	0.00149	1	01/28/24 16:09	01/29/24 00:37	5103-71-9	
gamma-Chlordane	**<0.00207**	mg/kg	0.00691	0.00207	1	01/28/24 16:09	01/29/24 00:37	5103-74-2	
4,4'-DDD	**<0.00391**	mg/kg	0.0130	0.00391	1	01/28/24 16:09	01/29/24 00:37	72-54-8	
4,4'-DDE	**<0.00387**	mg/kg	0.0129	0.00387	1	01/28/24 16:09	01/29/24 00:37	72-55-9	
4,4'-DDT	**<0.00663**	mg/kg	0.0221	0.00663	1	01/28/24 16:09	01/29/24 00:37	50-29-3	
Dieldrin	**<0.00364**	mg/kg	0.0122	0.00364	1	01/28/24 16:09	01/29/24 00:37	60-57-1	
Endosulfan I	**<0.00384**	mg/kg	0.0128	0.00384	1	01/28/24 16:09	01/29/24 00:37	959-98-8	
Endosulfan II	**<0.00354**	mg/kg	0.0118	0.00354	1	01/28/24 16:09	01/29/24 00:37	33213-65-9	
Endosulfan sulfate	**<0.00385**	mg/kg	0.0128	0.00385	1	01/28/24 16:09	01/29/24 00:37	1031-07-8	
Endrin	**<0.00370**	mg/kg	0.0124	0.00370	1	01/28/24 16:09	01/29/24 00:37	72-20-8	
Endrin aldehyde	**<0.00359**	mg/kg	0.0120	0.00359	1	01/28/24 16:09	01/29/24 00:37	7421-93-4	
Endrin ketone	**<0.00752**	mg/kg	0.0251	0.00752	1	01/28/24 16:09	01/29/24 00:37	53494-70-5	
Hexachlorobenzene	**<0.00366**	mg/kg	0.0122	0.00366	1	01/28/24 16:09	01/29/24 00:37	118-74-1	
Heptachlor	**<0.00453**	mg/kg	0.0151	0.00453	1	01/28/24 16:09	01/29/24 00:37	76-44-8	
Heptachlor epoxide	**<0.00359**	mg/kg	0.0120	0.00359	1	01/28/24 16:09	01/29/24 00:37	1024-57-3	
Methoxychlor	**<0.00512**	mg/kg	0.0170	0.00512	1	01/28/24 16:09	01/29/24 00:37	72-43-5	
Toxaphene	**<0.131**	mg/kg	0.437	0.131	1	01/28/24 16:09	01/29/24 00:37	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	56.3	%	10.0-135		1	01/28/24 16:09	01/29/24 00:37	2051-24-3	
Tetrachloro-m-xylene (S)	59.4	%	10.0-139		1	01/28/24 16:09	01/29/24 00:37	877-09-8	
Chlorinated Herb. (GC) 8151A	Analytical Method: EPA 8151A Preparation Method: 8151A Pace National - Mt. Juliet								
2,4-D	**<0.00742**	mg/kg	0.0247	0.00742	1	01/29/24 03:25	02/01/24 05:45	94-75-7	
Dalapon	**<0.0120**	mg/kg	0.0399	0.0120	1	01/29/24 03:25	02/01/24 05:45	127-20-8	
2,4-DB	**<0.0314**	mg/kg	0.105	0.0314	1	01/29/24 03:25	02/01/24 05:45	94-82-6	
Dicamba	**<0.0166**	mg/kg	0.0553	0.0166	1	01/29/24 03:25	02/01/24 05:45	1918-00-9	
Dichlorprop	**<0.0259**	mg/kg	0.0864	0.0259	1	01/29/24 03:25	02/01/24 05:45	120-36-5	
Dinoseb	**<0.00737**	mg/kg	0.0245	0.00737	1	01/29/24 03:25	02/01/24 05:45	88-85-7	
MCPA	**<0.469**	mg/kg	1.57	0.469	1	01/29/24 03:25	02/01/24 05:45	94-74-6	
2-(2-methyl-4-chlorophenoxy)pa	**<0.388**	mg/kg	1.29	0.388	1	01/29/24 03:25	02/01/24 05:45	93-65-2	
2,4,5-T	**<0.00901**	mg/kg	0.0300	0.00901	1	01/29/24 03:25	02/01/24 05:45	93-76-5	
2,4,5-TP (Silvex)	**<0.0113**	mg/kg	0.0378	0.0113	1	01/29/24 03:25	02/01/24 05:45	93-72-1	
Surrogates									
2,4-DCAA (S)	66.9	%	22.0-132		1	01/29/24 03:25	02/01/24 05:45	19719-28-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-06-02-03 **Lab ID: 40273365006** Collected: 01/17/24 12:40 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<16.2**	ug/kg	53.2	16.2	1	01/23/24 12:00	01/23/24 20:49	12674-11-2	
PCB-1221 (Aroclor 1221)	**<16.2**	ug/kg	53.2	16.2	1	01/23/24 12:00	01/23/24 20:49	11104-28-2	
PCB-1232 (Aroclor 1232)	**<16.2**	ug/kg	53.2	16.2	1	01/23/24 12:00	01/23/24 20:49	11141-16-5	
PCB-1242 (Aroclor 1242)	**<16.2**	ug/kg	53.2	16.2	1	01/23/24 12:00	01/23/24 20:49	53469-21-9	
PCB-1248 (Aroclor 1248)	**<16.2**	ug/kg	53.2	16.2	1	01/23/24 12:00	01/23/24 20:49	12672-29-6	
PCB-1254 (Aroclor 1254)	**<16.2**	ug/kg	53.2	16.2	1	01/23/24 12:00	01/23/24 20:49	11097-69-1	
PCB-1260 (Aroclor 1260)	**<16.2**	ug/kg	53.2	16.2	1	01/23/24 12:00	01/23/24 20:49	11096-82-5	
PCB, Total	**<16.2**	ug/kg	53.2	16.2	1	01/23/24 12:00	01/23/24 20:49	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	44-120		1	01/23/24 12:00	01/23/24 20:49	877-09-8	
Decachlorobiphenyl (S)	91	%	34-120		1	01/23/24 12:00	01/23/24 20:49	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**<1.4**	mg/kg	2.5	1.4	1	01/23/24 06:13	01/23/24 15:59	7440-38-2	
Barium	**16.9**	mg/kg	0.49	0.15	1	01/23/24 06:13	01/23/24 15:59	7440-39-3	
Cadmium	**<0.13**	mg/kg	0.49	0.13	1	01/23/24 06:13	01/23/24 15:59	7440-43-9	
Chromium	**5.5**	mg/kg	0.98	0.27	1	01/23/24 06:13	01/23/24 15:59	7440-47-3	
Lead	**2.2**	mg/kg	2.0	0.59	1	01/23/24 06:13	01/23/24 15:59	7439-92-1	
Selenium	**<1.3**	mg/kg	3.9	1.3	1	01/23/24 06:13	01/23/24 15:59	7782-49-2	
Silver	**<0.30**	mg/kg	0.98	0.30	1	01/23/24 06:13	01/23/24 15:59	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**<0.0096**	mg/kg	0.034	0.0096	1	01/31/24 11:02	02/01/24 13:06	7439-97-6	
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.3**	ug/kg	17.8	2.3	1	01/26/24 07:55	01/26/24 14:47	83-32-9	
Acenaphthylene	**<2.2**	ug/kg	17.8	2.2	1	01/26/24 07:55	01/26/24 14:47	208-96-8	
Anthracene	**<2.2**	ug/kg	17.8	2.2	1	01/26/24 07:55	01/26/24 14:47	120-12-7	
Benzo(a)anthracene	**<2.3**	ug/kg	17.8	2.3	1	01/26/24 07:55	01/26/24 14:47	56-55-3	
Benzo(a)pyrene	**<2.0**	ug/kg	17.8	2.0	1	01/26/24 07:55	01/26/24 14:47	50-32-8	
Benzo(b)fluoranthene	**<2.5**	ug/kg	17.8	2.5	1	01/26/24 07:55	01/26/24 14:47	205-99-2	
Benzo(g,h,i)perylene	**<3.1**	ug/kg	17.8	3.1	1	01/26/24 07:55	01/26/24 14:47	191-24-2	
Benzo(k)fluoranthene	**<2.3**	ug/kg	17.8	2.3	1	01/26/24 07:55	01/26/24 14:47	207-08-9	
Chrysene	**<3.4**	ug/kg	17.8	3.4	1	01/26/24 07:55	01/26/24 14:47	218-01-9	
Dibenz(a,h)anthracene	**<2.5**	ug/kg	17.8	2.5	1	01/26/24 07:55	01/26/24 14:47	53-70-3	
Fluoranthene	**<2.1**	ug/kg	17.8	2.1	1	01/26/24 07:55	01/26/24 14:47	206-44-0	
Fluorene	**<2.1**	ug/kg	17.8	2.1	1	01/26/24 07:55	01/26/24 14:47	86-73-7	
Indeno(1,2,3-cd)pyrene	**<3.7**	ug/kg	17.8	3.7	1	01/26/24 07:55	01/26/24 14:47	193-39-5	
1-Methylnaphthalene	**<2.6**	ug/kg	17.8	2.6	1	01/26/24 07:55	01/26/24 14:47	90-12-0	
2-Methylnaphthalene	**<2.6**	ug/kg	17.8	2.6	1	01/26/24 07:55	01/26/24 14:47	91-57-6	
Naphthalene	**<1.7**	ug/kg	17.8	1.7	1	01/26/24 07:55	01/26/24 14:47	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-06-02-03 **Lab ID: 40273365006** Collected: 01/17/24 12:40 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Phenanthrene	**<2.0**	ug/kg	17.8	2.0	1	01/26/24 07:55	01/26/24 14:47	85-01-8	
Pyrene	**<2.6**	ug/kg	17.8	2.6	1	01/26/24 07:55	01/26/24 14:47	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	57	%	39-120		1	01/26/24 07:55	01/26/24 14:47	321-60-8	
Terphenyl-d14 (S)	67	%	36-120		1	01/26/24 07:55	01/26/24 14:47	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<13.6**	ug/kg	56.7	13.6	1	01/23/24 08:15	01/23/24 16:19	630-20-6	
1,1,1-Trichloroethane	**<14.5**	ug/kg	56.7	14.5	1	01/23/24 08:15	01/23/24 16:19	71-55-6	
1,1,2,2-Tetrachloroethane	**<20.5**	ug/kg	56.7	20.5	1	01/23/24 08:15	01/23/24 16:19	79-34-5	
1,1,2-Trichloroethane	**<20.6**	ug/kg	56.7	20.6	1	01/23/24 08:15	01/23/24 16:19	79-00-5	
1,1-Dichloroethane	**<14.5**	ug/kg	56.7	14.5	1	01/23/24 08:15	01/23/24 16:19	75-34-3	
1,1-Dichloroethene	**<18.8**	ug/kg	56.7	18.8	1	01/23/24 08:15	01/23/24 16:19	75-35-4	
1,1-Dichloropropene	**<18.4**	ug/kg	56.7	18.4	1	01/23/24 08:15	01/23/24 16:19	563-58-6	
1,2,3-Trichlorobenzene	**<63.1**	ug/kg	283	63.1	1	01/23/24 08:15	01/23/24 16:19	87-61-6	
1,2,3-Trichloropropane	**<27.5**	ug/kg	56.7	27.5	1	01/23/24 08:15	01/23/24 16:19	96-18-4	
1,2,4-Trichlorobenzene	**<46.7**	ug/kg	283	46.7	1	01/23/24 08:15	01/23/24 16:19	120-82-1	
1,2,4-Trimethylbenzene	**<16.9**	ug/kg	56.7	16.9	1	01/23/24 08:15	01/23/24 16:19	95-63-6	
1,2-Dibromo-3-chloropropane	**<44.0**	ug/kg	283	44.0	1	01/23/24 08:15	01/23/24 16:19	96-12-8	
1,2-Dibromoethane (EDB)	**<15.5**	ug/kg	56.7	15.5	1	01/23/24 08:15	01/23/24 16:19	106-93-4	
1,2-Dichlorobenzene	**<17.6**	ug/kg	56.7	17.6	1	01/23/24 08:15	01/23/24 16:19	95-50-1	
1,2-Dichloroethane	**<13.0**	ug/kg	56.7	13.0	1	01/23/24 08:15	01/23/24 16:19	107-06-2	
1,2-Dichloropropane	**<13.5**	ug/kg	56.7	13.5	1	01/23/24 08:15	01/23/24 16:19	78-87-5	
1,3,5-Trimethylbenzene	**<18.2**	ug/kg	56.7	18.2	1	01/23/24 08:15	01/23/24 16:19	108-67-8	
1,3-Dichlorobenzene	**<15.5**	ug/kg	56.7	15.5	1	01/23/24 08:15	01/23/24 16:19	541-73-1	
1,3-Dichloropropane	**<12.4**	ug/kg	56.7	12.4	1	01/23/24 08:15	01/23/24 16:19	142-28-9	
1,4-Dichlorobenzene	**<15.5**	ug/kg	56.7	15.5	1	01/23/24 08:15	01/23/24 16:19	106-46-7	
2,2-Dichloropropane	**<15.3**	ug/kg	56.7	15.3	1	01/23/24 08:15	01/23/24 16:19	594-20-7	
2-Chlorotoluene	**<18.4**	ug/kg	56.7	18.4	1	01/23/24 08:15	01/23/24 16:19	95-49-8	
4-Chlorotoluene	**<21.5**	ug/kg	56.7	21.5	1	01/23/24 08:15	01/23/24 16:19	106-43-4	
Benzene	**<13.5**	ug/kg	22.7	13.5	1	01/23/24 08:15	01/23/24 16:19	71-43-2	
Bromobenzene	**<22.1**	ug/kg	56.7	22.1	1	01/23/24 08:15	01/23/24 16:19	108-86-1	
Bromochloromethane	**<15.5**	ug/kg	56.7	15.5	1	01/23/24 08:15	01/23/24 16:19	74-97-5	
Bromodichloromethane	**<13.5**	ug/kg	56.7	13.5	1	01/23/24 08:15	01/23/24 16:19	75-27-4	
Bromoform	**<249**	ug/kg	283	249	1	01/23/24 08:15	01/23/24 16:19	75-25-2	
Bromomethane	**<79.4**	ug/kg	283	79.4	1	01/23/24 08:15	01/23/24 16:19	74-83-9	
Carbon tetrachloride	**<12.5**	ug/kg	56.7	12.5	1	01/23/24 08:15	01/23/24 16:19	56-23-5	
Chlorobenzene	**<6.8**	ug/kg	56.7	6.8	1	01/23/24 08:15	01/23/24 16:19	108-90-7	
Chloroethane	**<23.9**	ug/kg	283	23.9	1	01/23/24 08:15	01/23/24 16:19	75-00-3	
Chloroform	**<40.6**	ug/kg	283	40.6	1	01/23/24 08:15	01/23/24 16:19	67-66-3	
Chloromethane	**<21.5**	ug/kg	56.7	21.5	1	01/23/24 08:15	01/23/24 16:19	74-87-3	
Dibromochloromethane	**<194**	ug/kg	283	194	1	01/23/24 08:15	01/23/24 16:19	124-48-1	
Dibromomethane	**<16.8**	ug/kg	56.7	16.8	1	01/23/24 08:15	01/23/24 16:19	74-95-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-06-02-03 **Lab ID: 40273365006** Collected: 01/17/24 12:40 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Dichlorodifluoromethane	**<24.4**	ug/kg	56.7	24.4	1	01/23/24 08:15	01/23/24 16:19	75-71-8	
Diisopropyl ether	**<14.1**	ug/kg	56.7	14.1	1	01/23/24 08:15	01/23/24 16:19	108-20-3	
Ethylbenzene	**<13.5**	ug/kg	56.7	13.5	1	01/23/24 08:15	01/23/24 16:19	100-41-4	
Hexachloro-1,3-butadiene	**<113**	ug/kg	283	113	1	01/23/24 08:15	01/23/24 16:19	87-68-3	
Isopropylbenzene (Cumene)	**<15.3**	ug/kg	56.7	15.3	1	01/23/24 08:15	01/23/24 16:19	98-82-8	
Methyl-tert-butyl ether	**<16.7**	ug/kg	56.7	16.7	1	01/23/24 08:15	01/23/24 16:19	1634-04-4	
Methylene Chloride	**<15.8**	ug/kg	56.7	15.8	1	01/23/24 08:15	01/23/24 16:19	75-09-2	
Naphthalene	**<23.8**	ug/kg	283	23.8	1	01/23/24 08:15	01/23/24 16:19	91-20-3	
Styrene	**<14.5**	ug/kg	56.7	14.5	1	01/23/24 08:15	01/23/24 16:19	100-42-5	
Tetrachloroethene	**<22.0**	ug/kg	56.7	22.0	1	01/23/24 08:15	01/23/24 16:19	127-18-4	
Toluene	**<14.3**	ug/kg	56.7	14.3	1	01/23/24 08:15	01/23/24 16:19	108-88-3	
Trichloroethene	**<21.2**	ug/kg	56.7	21.2	1	01/23/24 08:15	01/23/24 16:19	79-01-6	
Trichlorofluoromethane	**<16.4**	ug/kg	56.7	16.4	1	01/23/24 08:15	01/23/24 16:19	75-69-4	
Vinyl chloride	**<11.4**	ug/kg	56.7	11.4	1	01/23/24 08:15	01/23/24 16:19	75-01-4	
cis-1,2-Dichloroethene	**<12.1**	ug/kg	56.7	12.1	1	01/23/24 08:15	01/23/24 16:19	156-59-2	
cis-1,3-Dichloropropene	**<37.4**	ug/kg	283	37.4	1	01/23/24 08:15	01/23/24 16:19	10061-01-5	
m&p-Xylene	**<23.9**	ug/kg	113	23.9	1	01/23/24 08:15	01/23/24 16:19	179601-23-1	
n-Butylbenzene	**<25.9**	ug/kg	56.7	25.9	1	01/23/24 08:15	01/23/24 16:19	104-51-8	
n-Propylbenzene	**<13.6**	ug/kg	56.7	13.6	1	01/23/24 08:15	01/23/24 16:19	103-65-1	
o-Xylene	**<17.0**	ug/kg	56.7	17.0	1	01/23/24 08:15	01/23/24 16:19	95-47-6	
p-Isopropyltoluene	**<19.3**	ug/kg	56.7	19.3	1	01/23/24 08:15	01/23/24 16:19	99-87-6	
sec-Butylbenzene	**<19.4**	ug/kg	56.7	19.4	1	01/23/24 08:15	01/23/24 16:19	135-98-8	
tert-Butylbenzene	**<17.8**	ug/kg	56.7	17.8	1	01/23/24 08:15	01/23/24 16:19	98-06-6	
trans-1,2-Dichloroethene	**<12.4**	ug/kg	56.7	12.4	1	01/23/24 08:15	01/23/24 16:19	156-60-5	
trans-1,3-Dichloropropene	**<162**	ug/kg	283	162	1	01/23/24 08:15	01/23/24 16:19	10061-02-6	
Surrogates									
Toluene-d8 (S)	109	%	70-139		1	01/23/24 08:15	01/23/24 16:19	2037-26-5	
4-Bromofluorobenzene (S)	117	%	72-142		1	01/23/24 08:15	01/23/24 16:19	460-00-4	
1,2-Dichlorobenzene-d4 (S)	120	%	67-144		1	01/23/24 08:15	01/23/24 16:19	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**6.2**	%	0.10	0.10	1		01/22/24 17:48		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**94.6**	%			1	01/27/24 10:45	01/27/24 11:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-07-07-01-02 **Lab ID: 40273365007** Collected: 01/17/24 12:50 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Pesticides (GC) 8081B	Analytical Method: EPA 8081B Preparation Method: 3546/3665A Pace National - Mt. Juliet								
Aldrin	**<0.00433**	mg/kg	0.0144	0.00433	1	01/28/24 16:09	01/29/24 00:46	309-00-2	
alpha-BHC	**<0.00424**	mg/kg	0.0142	0.00424	1	01/28/24 16:09	01/29/24 00:46	319-84-6	
beta-BHC	**<0.00436**	mg/kg	0.0145	0.00436	1	01/28/24 16:09	01/29/24 00:46	319-85-7	
delta-BHC	**<0.00398**	mg/kg	0.0132	0.00398	1	01/28/24 16:09	01/29/24 00:46	319-86-8	
gamma-BHC (Lindane)	**<0.00396**	mg/kg	0.0132	0.00396	1	01/28/24 16:09	01/29/24 00:46	58-89-9	
Chlordane (Technical)	**<0.119**	mg/kg	0.395	0.119	1	01/28/24 16:09	01/29/24 00:46	57-74-9	
alpha-Chlordane	**<0.00162**	mg/kg	0.00541	0.00162	1	01/28/24 16:09	01/29/24 00:46	5103-71-9	
gamma-Chlordane	**<0.00226**	mg/kg	0.00752	0.00226	1	01/28/24 16:09	01/29/24 00:46	5103-74-2	
4,4'-DDD	**<0.00426**	mg/kg	0.0142	0.00426	1	01/28/24 16:09	01/29/24 00:46	72-54-8	
4,4'-DDE	**<0.00421**	mg/kg	0.0140	0.00421	1	01/28/24 16:09	01/29/24 00:46	72-55-9	
4,4'-DDT	**<0.00722**	mg/kg	0.0241	0.00722	1	01/28/24 16:09	01/29/24 00:46	50-29-3	
Dieldrin	**<0.00396**	mg/kg	0.0132	0.00396	1	01/28/24 16:09	01/29/24 00:46	60-57-1	
Endosulfan I	**<0.00418**	mg/kg	0.0139	0.00418	1	01/28/24 16:09	01/29/24 00:46	959-98-8	
Endosulfan II	**<0.00386**	mg/kg	0.0129	0.00386	1	01/28/24 16:09	01/29/24 00:46	33213-65-9	
Endosulfan sulfate	**<0.00419**	mg/kg	0.0139	0.00419	1	01/28/24 16:09	01/29/24 00:46	1031-07-8	
Endrin	**<0.00403**	mg/kg	0.0135	0.00403	1	01/28/24 16:09	01/29/24 00:46	72-20-8	
Endrin aldehyde	**<0.00390**	mg/kg	0.0130	0.00390	1	01/28/24 16:09	01/29/24 00:46	7421-93-4	
Endrin ketone	**<0.00819**	mg/kg	0.0273	0.00819	1	01/28/24 16:09	01/29/24 00:46	53494-70-5	
Hexachlorobenzene	**<0.00398**	mg/kg	0.0132	0.00398	1	01/28/24 16:09	01/29/24 00:46	118-74-1	
Heptachlor	**<0.00493**	mg/kg	0.0165	0.00493	1	01/28/24 16:09	01/29/24 00:46	76-44-8	
Heptachlor epoxide	**<0.00390**	mg/kg	0.0130	0.00390	1	01/28/24 16:09	01/29/24 00:46	1024-57-3	
Methoxychlor	**<0.00557**	mg/kg	0.0185	0.00557	1	01/28/24 16:09	01/29/24 00:46	72-43-5	
Toxaphene	**<0.143**	mg/kg	0.475	0.143	1	01/28/24 16:09	01/29/24 00:46	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	70.4	%	10.0-135		1	01/28/24 16:09	01/29/24 00:46	2051-24-3	
Tetrachloro-m-xylene (S)	72.7	%	10.0-139		1	01/28/24 16:09	01/29/24 00:46	877-09-8	
Chlorinated Herb. (GC) 8151A	Analytical Method: EPA 8151A Preparation Method: 8151A Pace National - Mt. Juliet								
2,4-D	**<0.00808**	mg/kg	0.0269	0.00808	1	01/29/24 03:25	02/01/24 05:57	94-75-7	
Dalapon	**<0.0130**	mg/kg	0.0434	0.0130	1	01/29/24 03:25	02/01/24 05:57	127-20-8	
2,4-DB	**<0.0342**	mg/kg	0.114	0.0342	1	01/29/24 03:25	02/01/24 05:57	94-82-6	
Dicamba	**<0.0181**	mg/kg	0.0602	0.0181	1	01/29/24 03:25	02/01/24 05:57	1918-00-9	
Dichlorprop	**<0.0282**	mg/kg	0.0941	0.0282	1	01/29/24 03:25	02/01/24 05:57	120-36-5	
Dinoseb	**<0.00802**	mg/kg	0.0267	0.00802	1	01/29/24 03:25	02/01/24 05:57	88-85-7	
MCPA	**<0.510**	mg/kg	1.70	0.510	1	01/29/24 03:25	02/01/24 05:57	94-74-6	
2-(2-methyl-4-chlorophenoxy)pa	**<0.423**	mg/kg	1.40	0.423	1	01/29/24 03:25	02/01/24 05:57	93-65-2	
2,4,5-T	**<0.00981**	mg/kg	0.0327	0.00981	1	01/29/24 03:25	02/01/24 05:57	93-76-5	
2,4,5-TP (Silvex)	**<0.0123**	mg/kg	0.0411	0.0123	1	01/29/24 03:25	02/01/24 05:57	93-72-1	
Surrogates									
2,4-DCAA (S)	67.9	%	22.0-132		1	01/29/24 03:25	02/01/24 05:57	19719-28-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-07-07-01-02 **Lab ID: 40273365007** Collected: 01/17/24 12:50 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<17.2**	ug/kg	56.5	17.2	1	01/23/24 12:00	01/23/24 21:13	12674-11-2	
PCB-1221 (Aroclor 1221)	**<17.2**	ug/kg	56.5	17.2	1	01/23/24 12:00	01/23/24 21:13	11104-28-2	
PCB-1232 (Aroclor 1232)	**<17.2**	ug/kg	56.5	17.2	1	01/23/24 12:00	01/23/24 21:13	11141-16-5	
PCB-1242 (Aroclor 1242)	**<17.2**	ug/kg	56.5	17.2	1	01/23/24 12:00	01/23/24 21:13	53469-21-9	
PCB-1248 (Aroclor 1248)	**<17.2**	ug/kg	56.5	17.2	1	01/23/24 12:00	01/23/24 21:13	12672-29-6	
PCB-1254 (Aroclor 1254)	**<17.2**	ug/kg	56.5	17.2	1	01/23/24 12:00	01/23/24 21:13	11097-69-1	
PCB-1260 (Aroclor 1260)	**<17.2**	ug/kg	56.5	17.2	1	01/23/24 12:00	01/23/24 21:13	11096-82-5	
PCB, Total	**<17.2**	ug/kg	56.5	17.2	1	01/23/24 12:00	01/23/24 21:13	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	44-120		1	01/23/24 12:00	01/23/24 21:13	877-09-8	
Decachlorobiphenyl (S)	91	%	34-120		1	01/23/24 12:00	01/23/24 21:13	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**2.4J**	mg/kg	2.6	1.5	1	01/23/24 06:13	01/23/24 16:01	7440-38-2	
Barium	**67.1**	mg/kg	0.53	0.16	1	01/23/24 06:13	01/23/24 16:01	7440-39-3	
Cadmium	**<0.14**	mg/kg	0.53	0.14	1	01/23/24 06:13	01/23/24 16:01	7440-43-9	
Chromium	**15.8**	mg/kg	1.1	0.29	1	01/23/24 06:13	01/23/24 16:01	7440-47-3	
Lead	**5.2**	mg/kg	2.1	0.63	1	01/23/24 06:13	01/23/24 16:01	7439-92-1	
Selenium	**<1.4**	mg/kg	4.2	1.4	1	01/23/24 06:13	01/23/24 16:01	7782-49-2	
Silver	**<0.32**	mg/kg	1.1	0.32	1	01/23/24 06:13	01/23/24 16:01	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**0.011J**	mg/kg	0.037	0.011	1	01/31/24 11:02	02/01/24 13:08	7439-97-6	
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.5**	ug/kg	18.9	2.5	1	01/26/24 07:55	01/26/24 15:05	83-32-9	
Acenaphthylene	**<2.4**	ug/kg	18.9	2.4	1	01/26/24 07:55	01/26/24 15:05	208-96-8	
Anthracene	**10.1J**	ug/kg	18.9	2.3	1	01/26/24 07:55	01/26/24 15:05	120-12-7	
Benzo(a)anthracene	**33.7**	ug/kg	18.9	2.4	1	01/26/24 07:55	01/26/24 15:05	56-55-3	
Benzo(a)pyrene	**26.5**	ug/kg	18.9	2.1	1	01/26/24 07:55	01/26/24 15:05	50-32-8	
Benzo(b)fluoranthene	**33.7**	ug/kg	18.9	2.6	1	01/26/24 07:55	01/26/24 15:05	205-99-2	
Benzo(g,h,i)perylene	**15.9J**	ug/kg	18.9	3.3	1	01/26/24 07:55	01/26/24 15:05	191-24-2	
Benzo(k)fluoranthene	**17.0J**	ug/kg	18.9	2.4	1	01/26/24 07:55	01/26/24 15:05	207-08-9	
Chrysene	**36.1**	ug/kg	18.9	3.6	1	01/26/24 07:55	01/26/24 15:05	218-01-9	
Dibenz(a,h)anthracene	**5.4J**	ug/kg	18.9	2.6	1	01/26/24 07:55	01/26/24 15:05	53-70-3	
Fluoranthene	**66.7**	ug/kg	18.9	2.2	1	01/26/24 07:55	01/26/24 15:05	206-44-0	
Fluorene	**<2.3**	ug/kg	18.9	2.3	1	01/26/24 07:55	01/26/24 15:05	86-73-7	
Indeno(1,2,3-cd)pyrene	**15.1J**	ug/kg	18.9	3.9	1	01/26/24 07:55	01/26/24 15:05	193-39-5	
1-Methylnaphthalene	**<2.8**	ug/kg	18.9	2.8	1	01/26/24 07:55	01/26/24 15:05	90-12-0	
2-Methylnaphthalene	**<2.8**	ug/kg	18.9	2.8	1	01/26/24 07:55	01/26/24 15:05	91-57-6	
Naphthalene	**<1.8**	ug/kg	18.9	1.8	1	01/26/24 07:55	01/26/24 15:05	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-07-07-01-02 **Lab ID: 40273365007** Collected: 01/17/24 12:50 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Phenanthrene	**27.6**	ug/kg	18.9	2.2	1	01/26/24 07:55	01/26/24 15:05	85-01-8	
Pyrene	**48.1**	ug/kg	18.9	2.8	1	01/26/24 07:55	01/26/24 15:05	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	54	%	39-120		1	01/26/24 07:55	01/26/24 15:05	321-60-8	
Terphenyl-d14 (S)	70	%	36-120		1	01/26/24 07:55	01/26/24 15:05	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<15.1**	ug/kg	63.1	15.1	1	01/23/24 08:15	01/23/24 16:39	630-20-6	
1,1,1-Trichloroethane	**<16.1**	ug/kg	63.1	16.1	1	01/23/24 08:15	01/23/24 16:39	71-55-6	
1,1,2,2-Tetrachloroethane	**<22.8**	ug/kg	63.1	22.8	1	01/23/24 08:15	01/23/24 16:39	79-34-5	
1,1,2-Trichloroethane	**<23.0**	ug/kg	63.1	23.0	1	01/23/24 08:15	01/23/24 16:39	79-00-5	
1,1-Dichloroethane	**<16.1**	ug/kg	63.1	16.1	1	01/23/24 08:15	01/23/24 16:39	75-34-3	
1,1-Dichloroethene	**<20.9**	ug/kg	63.1	20.9	1	01/23/24 08:15	01/23/24 16:39	75-35-4	
1,1-Dichloropropene	**<20.4**	ug/kg	63.1	20.4	1	01/23/24 08:15	01/23/24 16:39	563-58-6	
1,2,3-Trichlorobenzene	**<70.3**	ug/kg	315	70.3	1	01/23/24 08:15	01/23/24 16:39	87-61-6	
1,2,3-Trichloropropane	**<30.7**	ug/kg	63.1	30.7	1	01/23/24 08:15	01/23/24 16:39	96-18-4	
1,2,4-Trichlorobenzene	**<52.0**	ug/kg	315	52.0	1	01/23/24 08:15	01/23/24 16:39	120-82-1	
1,2,4-Trimethylbenzene	**<18.8**	ug/kg	63.1	18.8	1	01/23/24 08:15	01/23/24 16:39	95-63-6	
1,2-Dibromo-3-chloropropane	**<49.0**	ug/kg	315	49.0	1	01/23/24 08:15	01/23/24 16:39	96-12-8	
1,2-Dibromoethane (EDB)	**<17.3**	ug/kg	63.1	17.3	1	01/23/24 08:15	01/23/24 16:39	106-93-4	
1,2-Dichlorobenzene	**<19.6**	ug/kg	63.1	19.6	1	01/23/24 08:15	01/23/24 16:39	95-50-1	
1,2-Dichloroethane	**<14.5**	ug/kg	63.1	14.5	1	01/23/24 08:15	01/23/24 16:39	107-06-2	
1,2-Dichloropropane	**<15.0**	ug/kg	63.1	15.0	1	01/23/24 08:15	01/23/24 16:39	78-87-5	
1,3,5-Trimethylbenzene	**<20.3**	ug/kg	63.1	20.3	1	01/23/24 08:15	01/23/24 16:39	108-67-8	
1,3-Dichlorobenzene	**<17.3**	ug/kg	63.1	17.3	1	01/23/24 08:15	01/23/24 16:39	541-73-1	
1,3-Dichloropropane	**<13.8**	ug/kg	63.1	13.8	1	01/23/24 08:15	01/23/24 16:39	142-28-9	
1,4-Dichlorobenzene	**<17.3**	ug/kg	63.1	17.3	1	01/23/24 08:15	01/23/24 16:39	106-46-7	
2,2-Dichloropropane	**<17.0**	ug/kg	63.1	17.0	1	01/23/24 08:15	01/23/24 16:39	594-20-7	
2-Chlorotoluene	**<20.4**	ug/kg	63.1	20.4	1	01/23/24 08:15	01/23/24 16:39	95-49-8	
4-Chlorotoluene	**<24.0**	ug/kg	63.1	24.0	1	01/23/24 08:15	01/23/24 16:39	106-43-4	
Benzene	**<15.0**	ug/kg	25.2	15.0	1	01/23/24 08:15	01/23/24 16:39	71-43-2	
Bromobenzene	**<24.6**	ug/kg	63.1	24.6	1	01/23/24 08:15	01/23/24 16:39	108-86-1	
Bromochloromethane	**<17.3**	ug/kg	63.1	17.3	1	01/23/24 08:15	01/23/24 16:39	74-97-5	
Bromodichloromethane	**<15.0**	ug/kg	63.1	15.0	1	01/23/24 08:15	01/23/24 16:39	75-27-4	
Bromoform	**<278**	ug/kg	315	278	1	01/23/24 08:15	01/23/24 16:39	75-25-2	
Bromomethane	**<88.4**	ug/kg	315	88.4	1	01/23/24 08:15	01/23/24 16:39	74-83-9	
Carbon tetrachloride	**<13.9**	ug/kg	63.1	13.9	1	01/23/24 08:15	01/23/24 16:39	56-23-5	
Chlorobenzene	**<7.6**	ug/kg	63.1	7.6	1	01/23/24 08:15	01/23/24 16:39	108-90-7	
Chloroethane	**<26.6**	ug/kg	315	26.6	1	01/23/24 08:15	01/23/24 16:39	75-00-3	
Chloroform	**<45.2**	ug/kg	315	45.2	1	01/23/24 08:15	01/23/24 16:39	67-66-3	
Chloromethane	**<24.0**	ug/kg	63.1	24.0	1	01/23/24 08:15	01/23/24 16:39	74-87-3	
Dibromochloromethane	**<216**	ug/kg	315	216	1	01/23/24 08:15	01/23/24 16:39	124-48-1	
Dibromomethane	**<18.7**	ug/kg	63.1	18.7	1	01/23/24 08:15	01/23/24 16:39	74-95-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-07-07-01-02 **Lab ID: 40273365007** Collected: 01/17/24 12:50 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Dichlorodifluoromethane	**<27.1**	ug/kg	63.1	27.1	1	01/23/24 08:15	01/23/24 16:39	75-71-8	
Diisopropyl ether	**<15.6**	ug/kg	63.1	15.6	1	01/23/24 08:15	01/23/24 16:39	108-20-3	
Ethylbenzene	**<15.0**	ug/kg	63.1	15.0	1	01/23/24 08:15	01/23/24 16:39	100-41-4	
Hexachloro-1,3-butadiene	**<125**	ug/kg	315	125	1	01/23/24 08:15	01/23/24 16:39	87-68-3	
Isopropylbenzene (Cumene)	**<17.0**	ug/kg	63.1	17.0	1	01/23/24 08:15	01/23/24 16:39	98-82-8	
Methyl-tert-butyl ether	**<18.5**	ug/kg	63.1	18.5	1	01/23/24 08:15	01/23/24 16:39	1634-04-4	
Methylene Chloride	**<17.5**	ug/kg	63.1	17.5	1	01/23/24 08:15	01/23/24 16:39	75-09-2	
Naphthalene	**<26.5**	ug/kg	315	26.5	1	01/23/24 08:15	01/23/24 16:39	91-20-3	
Styrene	**<16.1**	ug/kg	63.1	16.1	1	01/23/24 08:15	01/23/24 16:39	100-42-5	
Tetrachloroethene	**<24.5**	ug/kg	63.1	24.5	1	01/23/24 08:15	01/23/24 16:39	127-18-4	
Toluene	**<15.9**	ug/kg	63.1	15.9	1	01/23/24 08:15	01/23/24 16:39	108-88-3	
Trichloroethene	**<23.6**	ug/kg	63.1	23.6	1	01/23/24 08:15	01/23/24 16:39	79-01-6	
Trichlorofluoromethane	**<18.3**	ug/kg	63.1	18.3	1	01/23/24 08:15	01/23/24 16:39	75-69-4	
Vinyl chloride	**<12.7**	ug/kg	63.1	12.7	1	01/23/24 08:15	01/23/24 16:39	75-01-4	
cis-1,2-Dichloroethene	**<13.5**	ug/kg	63.1	13.5	1	01/23/24 08:15	01/23/24 16:39	156-59-2	
cis-1,3-Dichloropropene	**<41.6**	ug/kg	315	41.6	1	01/23/24 08:15	01/23/24 16:39	10061-01-5	
m&p-Xylene	**<26.6**	ug/kg	126	26.6	1	01/23/24 08:15	01/23/24 16:39	179601-23-1	
n-Butylbenzene	**<28.9**	ug/kg	63.1	28.9	1	01/23/24 08:15	01/23/24 16:39	104-51-8	
n-Propylbenzene	**<15.1**	ug/kg	63.1	15.1	1	01/23/24 08:15	01/23/24 16:39	103-65-1	
o-Xylene	**<18.9**	ug/kg	63.1	18.9	1	01/23/24 08:15	01/23/24 16:39	95-47-6	
p-Isopropyltoluene	**<21.4**	ug/kg	63.1	21.4	1	01/23/24 08:15	01/23/24 16:39	99-87-6	
sec-Butylbenzene	**<21.6**	ug/kg	63.1	21.6	1	01/23/24 08:15	01/23/24 16:39	135-98-8	
tert-Butylbenzene	**<19.8**	ug/kg	63.1	19.8	1	01/23/24 08:15	01/23/24 16:39	98-06-6	
trans-1,2-Dichloroethene	**<13.8**	ug/kg	63.1	13.8	1	01/23/24 08:15	01/23/24 16:39	156-60-5	
trans-1,3-Dichloropropene	**<180**	ug/kg	315	180	1	01/23/24 08:15	01/23/24 16:39	10061-02-6	
Surrogates									
Toluene-d8 (S)	116	%	70-139		1	01/23/24 08:15	01/23/24 16:39	2037-26-5	
4-Bromofluorobenzene (S)	127	%	72-142		1	01/23/24 08:15	01/23/24 16:39	460-00-4	
1,2-Dichlorobenzene-d4 (S)	129	%	67-144		1	01/23/24 08:15	01/23/24 16:39	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**11.6**	%	0.10	0.10	1		01/22/24 17:48		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**86.9**	%			1	01/27/24 10:45	01/27/24 11:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-08-01-02 **Lab ID: 40273365008** Collected: 01/17/24 13:05 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Pesticides (GC) 8081B	Analytical Method: EPA 8081B Preparation Method: 3546/3665A Pace National - Mt. Juliet								
Aldrin	**<0.00440**	mg/kg	0.0146	0.00440	1	01/28/24 16:09	01/29/24 00:54	309-00-2	
alpha-BHC	**<0.00431**	mg/kg	0.0144	0.00431	1	01/28/24 16:09	01/29/24 00:54	319-84-6	
beta-BHC	**<0.00444**	mg/kg	0.0147	0.00444	1	01/28/24 16:09	01/29/24 00:54	319-85-7	
delta-BHC	**<0.00405**	mg/kg	0.0135	0.00405	1	01/28/24 16:09	01/29/24 00:54	319-86-8	
gamma-BHC (Lindane)	**<0.00403**	mg/kg	0.0135	0.00403	1	01/28/24 16:09	01/29/24 00:54	58-89-9	
Chlordane (Technical)	**<0.121**	mg/kg	0.401	0.121	1	01/28/24 16:09	01/29/24 00:54	57-74-9	
alpha-Chlordane	**<0.00165**	mg/kg	0.00550	0.00165	1	01/28/24 16:09	01/29/24 00:54	5103-71-9	
gamma-Chlordane	**<0.00229**	mg/kg	0.00764	0.00229	1	01/28/24 16:09	01/29/24 00:54	5103-74-2	
4,4'-DDD	**<0.00433**	mg/kg	0.0144	0.00433	1	01/28/24 16:09	01/29/24 00:54	72-54-8	
4,4'-DDE	**<0.00428**	mg/kg	0.0143	0.00428	1	01/28/24 16:09	01/29/24 00:54	72-55-9	
4,4'-DDT	**<0.00734**	mg/kg	0.0245	0.00734	1	01/28/24 16:09	01/29/24 00:54	50-29-3	
Dieldrin	**<0.00403**	mg/kg	0.0135	0.00403	1	01/28/24 16:09	01/29/24 00:54	60-57-1	
Endosulfan I	**<0.00425**	mg/kg	0.0142	0.00425	1	01/28/24 16:09	01/29/24 00:54	959-98-8	
Endosulfan II	**<0.00392**	mg/kg	0.0131	0.00392	1	01/28/24 16:09	01/29/24 00:54	33213-65-9	
Endosulfan sulfate	**<0.00426**	mg/kg	0.0142	0.00426	1	01/28/24 16:09	01/29/24 00:54	1031-07-8	
Endrin	**<0.00410**	mg/kg	0.0137	0.00410	1	01/28/24 16:09	01/29/24 00:54	72-20-8	
Endrin aldehyde	**<0.00397**	mg/kg	0.0132	0.00397	1	01/28/24 16:09	01/29/24 00:54	7421-93-4	
Endrin ketone	**<0.00832**	mg/kg	0.0277	0.00832	1	01/28/24 16:09	01/29/24 00:54	53494-70-5	
Hexachlorobenzene	**<0.00405**	mg/kg	0.0135	0.00405	1	01/28/24 16:09	01/29/24 00:54	118-74-1	
Heptachlor	**<0.00501**	mg/kg	0.0167	0.00501	1	01/28/24 16:09	01/29/24 00:54	76-44-8	
Heptachlor epoxide	**<0.00397**	mg/kg	0.0132	0.00397	1	01/28/24 16:09	01/29/24 00:54	1024-57-3	
Methoxychlor	**<0.00566**	mg/kg	0.0188	0.00566	1	01/28/24 16:09	01/29/24 00:54	72-43-5	
Toxaphene	**<0.145**	mg/kg	0.483	0.145	1	01/28/24 16:09	01/29/24 00:54	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	57.1	%	10.0-135		1	01/28/24 16:09	01/29/24 00:54	2051-24-3	
Tetrachloro-m-xylene (S)	63.5	%	10.0-139		1	01/28/24 16:09	01/29/24 00:54	877-09-8	
Chlorinated Herb. (GC) 8151A	Analytical Method: EPA 8151A Preparation Method: 8151A Pace National - Mt. Juliet								
2,4-D	**<0.00822**	mg/kg	0.0274	0.00822	1	01/29/24 03:25	02/01/24 06:43	94-75-7	
Dalapon	**<0.0132**	mg/kg	0.0441	0.0132	1	01/29/24 03:25	02/01/24 06:43	127-20-8	
2,4-DB	**<0.0348**	mg/kg	0.116	0.0348	1	01/29/24 03:25	02/01/24 06:43	94-82-6	
Dicamba	**<0.0184**	mg/kg	0.0612	0.0184	1	01/29/24 03:25	02/01/24 06:43	1918-00-9	
Dichlorprop	**<0.0287**	mg/kg	0.0956	0.0287	1	01/29/24 03:25	02/01/24 06:43	120-36-5	
Dinoseb	**<0.00816**	mg/kg	0.0272	0.00816	1	01/29/24 03:25	02/01/24 06:43	88-85-7	
MCPA	**<0.519**	mg/kg	1.73	0.519	1	01/29/24 03:25	02/01/24 06:43	94-74-6	
2-(2-methyl-4-chlorophenoxy)pa	**<0.430**	mg/kg	1.43	0.430	1	01/29/24 03:25	02/01/24 06:43	93-65-2	
2,4,5-T	**<0.00997**	mg/kg	0.0332	0.00997	1	01/29/24 03:25	02/01/24 06:43	93-76-5	
2,4,5-TP (Silvex)	**<0.0125**	mg/kg	0.0418	0.0125	1	01/29/24 03:25	02/01/24 06:43	93-72-1	
Surrogates									
2,4-DCAA (S)	64.4	%	22.0-132		1	01/29/24 03:25	02/01/24 06:43	19719-28-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-08-01-02 **Lab ID: 40273365008** Collected: 01/17/24 13:05 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<17.0**	ug/kg	55.9	17.0	1	01/23/24 12:00	01/23/24 21:36	12674-11-2	
PCB-1221 (Aroclor 1221)	**<17.0**	ug/kg	55.9	17.0	1	01/23/24 12:00	01/23/24 21:36	11104-28-2	
PCB-1232 (Aroclor 1232)	**<17.0**	ug/kg	55.9	17.0	1	01/23/24 12:00	01/23/24 21:36	11141-16-5	
PCB-1242 (Aroclor 1242)	**<17.0**	ug/kg	55.9	17.0	1	01/23/24 12:00	01/23/24 21:36	53469-21-9	
PCB-1248 (Aroclor 1248)	**<17.0**	ug/kg	55.9	17.0	1	01/23/24 12:00	01/23/24 21:36	12672-29-6	
PCB-1254 (Aroclor 1254)	**<17.0**	ug/kg	55.9	17.0	1	01/23/24 12:00	01/23/24 21:36	11097-69-1	
PCB-1260 (Aroclor 1260)	**<17.0**	ug/kg	55.9	17.0	1	01/23/24 12:00	01/23/24 21:36	11096-82-5	
PCB, Total	**<17.0**	ug/kg	55.9	17.0	1	01/23/24 12:00	01/23/24 21:36	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	87	%	44-120		1	01/23/24 12:00	01/23/24 21:36	877-09-8	
Decachlorobiphenyl (S)	97	%	34-120		1	01/23/24 12:00	01/23/24 21:36	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**3.4**	mg/kg	2.7	1.6	1	01/23/24 06:13	01/23/24 16:03	7440-38-2	
Barium	**82.9**	mg/kg	0.54	0.16	1	01/23/24 06:13	01/23/24 16:03	7440-39-3	
Cadmium	**<0.14**	mg/kg	0.54	0.14	1	01/23/24 06:13	01/23/24 16:03	7440-43-9	
Chromium	**18.3**	mg/kg	1.1	0.30	1	01/23/24 06:13	01/23/24 16:03	7440-47-3	
Lead	**6.4**	mg/kg	2.2	0.65	1	01/23/24 06:13	01/23/24 16:03	7439-92-1	
Selenium	**<1.4**	mg/kg	4.3	1.4	1	01/23/24 06:13	01/23/24 16:03	7782-49-2	
Silver	**<0.33**	mg/kg	1.1	0.33	1	01/23/24 06:13	01/23/24 16:03	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**0.021J**	mg/kg	0.036	0.010	1	01/31/24 11:02	02/01/24 13:10	7439-97-6	
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.4**	ug/kg	18.7	2.4	1	01/26/24 07:55	01/26/24 15:22	83-32-9	
Acenaphthylene	**<2.4**	ug/kg	18.7	2.4	1	01/26/24 07:55	01/26/24 15:22	208-96-8	
Anthracene	**<2.3**	ug/kg	18.7	2.3	1	01/26/24 07:55	01/26/24 15:22	120-12-7	
Benzo(a)anthracene	**<2.4**	ug/kg	18.7	2.4	1	01/26/24 07:55	01/26/24 15:22	56-55-3	
Benzo(a)pyrene	**<2.1**	ug/kg	18.7	2.1	1	01/26/24 07:55	01/26/24 15:22	50-32-8	
Benzo(b)fluoranthene	**<2.6**	ug/kg	18.7	2.6	1	01/26/24 07:55	01/26/24 15:22	205-99-2	
Benzo(g,h,i)perylene	**<3.3**	ug/kg	18.7	3.3	1	01/26/24 07:55	01/26/24 15:22	191-24-2	
Benzo(k)fluoranthene	**<2.4**	ug/kg	18.7	2.4	1	01/26/24 07:55	01/26/24 15:22	207-08-9	
Chrysene	**<3.5**	ug/kg	18.7	3.5	1	01/26/24 07:55	01/26/24 15:22	218-01-9	
Dibenz(a,h)anthracene	**<2.6**	ug/kg	18.7	2.6	1	01/26/24 07:55	01/26/24 15:22	53-70-3	
Fluoranthene	**<2.2**	ug/kg	18.7	2.2	1	01/26/24 07:55	01/26/24 15:22	206-44-0	
Fluorene	**<2.2**	ug/kg	18.7	2.2	1	01/26/24 07:55	01/26/24 15:22	86-73-7	
Indeno(1,2,3-cd)pyrene	**<3.9**	ug/kg	18.7	3.9	1	01/26/24 07:55	01/26/24 15:22	193-39-5	
1-Methylnaphthalene	**<2.7**	ug/kg	18.7	2.7	1	01/26/24 07:55	01/26/24 15:22	90-12-0	
2-Methylnaphthalene	**<2.7**	ug/kg	18.7	2.7	1	01/26/24 07:55	01/26/24 15:22	91-57-6	
Naphthalene	**<1.8**	ug/kg	18.7	1.8	1	01/26/24 07:55	01/26/24 15:22	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-08-01-02 **Lab ID: 40273365008** Collected: 01/17/24 13:05 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Phenanthrene	**<2.1**	ug/kg	18.7	2.1	1	01/26/24 07:55	01/26/24 15:22	85-01-8	
Pyrene	**<2.7**	ug/kg	18.7	2.7	1	01/26/24 07:55	01/26/24 15:22	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	58	%	39-120		1	01/26/24 07:55	01/26/24 15:22	321-60-8	
Terphenyl-d14 (S)	66	%	36-120		1	01/26/24 07:55	01/26/24 15:22	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<14.8**	ug/kg	61.8	14.8	1	01/23/24 08:15	01/23/24 16:58	630-20-6	
1,1,1-Trichloroethane	**<15.8**	ug/kg	61.8	15.8	1	01/23/24 08:15	01/23/24 16:58	71-55-6	
1,1,2,2-Tetrachloroethane	**<22.4**	ug/kg	61.8	22.4	1	01/23/24 08:15	01/23/24 16:58	79-34-5	
1,1,2-Trichloroethane	**<22.5**	ug/kg	61.8	22.5	1	01/23/24 08:15	01/23/24 16:58	79-00-5	
1,1-Dichloroethane	**<15.8**	ug/kg	61.8	15.8	1	01/23/24 08:15	01/23/24 16:58	75-34-3	
1,1-Dichloroethene	**<20.5**	ug/kg	61.8	20.5	1	01/23/24 08:15	01/23/24 16:58	75-35-4	
1,1-Dichloropropene	**<20.0**	ug/kg	61.8	20.0	1	01/23/24 08:15	01/23/24 16:58	563-58-6	
1,2,3-Trichlorobenzene	**<68.9**	ug/kg	309	68.9	1	01/23/24 08:15	01/23/24 16:58	87-61-6	
1,2,3-Trichloropropane	**<30.1**	ug/kg	61.8	30.1	1	01/23/24 08:15	01/23/24 16:58	96-18-4	
1,2,4-Trichlorobenzene	**<51.0**	ug/kg	309	51.0	1	01/23/24 08:15	01/23/24 16:58	120-82-1	
1,2,4-Trimethylbenzene	**<18.4**	ug/kg	61.8	18.4	1	01/23/24 08:15	01/23/24 16:58	95-63-6	
1,2-Dibromo-3-chloropropane	**<48.0**	ug/kg	309	48.0	1	01/23/24 08:15	01/23/24 16:58	96-12-8	
1,2-Dibromoethane (EDB)	**<16.9**	ug/kg	61.8	16.9	1	01/23/24 08:15	01/23/24 16:58	106-93-4	
1,2-Dichlorobenzene	**<19.2**	ug/kg	61.8	19.2	1	01/23/24 08:15	01/23/24 16:58	95-50-1	
1,2-Dichloroethane	**<14.2**	ug/kg	61.8	14.2	1	01/23/24 08:15	01/23/24 16:58	107-06-2	
1,2-Dichloropropane	**<14.7**	ug/kg	61.8	14.7	1	01/23/24 08:15	01/23/24 16:58	78-87-5	
1,3,5-Trimethylbenzene	**<19.9**	ug/kg	61.8	19.9	1	01/23/24 08:15	01/23/24 16:58	108-67-8	
1,3-Dichlorobenzene	**<16.9**	ug/kg	61.8	16.9	1	01/23/24 08:15	01/23/24 16:58	541-73-1	
1,3-Dichloropropane	**<13.5**	ug/kg	61.8	13.5	1	01/23/24 08:15	01/23/24 16:58	142-28-9	
1,4-Dichlorobenzene	**<16.9**	ug/kg	61.8	16.9	1	01/23/24 08:15	01/23/24 16:58	106-46-7	
2,2-Dichloropropane	**<16.7**	ug/kg	61.8	16.7	1	01/23/24 08:15	01/23/24 16:58	594-20-7	
2-Chlorotoluene	**<20.0**	ug/kg	61.8	20.0	1	01/23/24 08:15	01/23/24 16:58	95-49-8	
4-Chlorotoluene	**<23.5**	ug/kg	61.8	23.5	1	01/23/24 08:15	01/23/24 16:58	106-43-4	
Benzene	**<14.7**	ug/kg	24.7	14.7	1	01/23/24 08:15	01/23/24 16:58	71-43-2	
Bromobenzene	**<24.1**	ug/kg	61.8	24.1	1	01/23/24 08:15	01/23/24 16:58	108-86-1	
Bromochloromethane	**<16.9**	ug/kg	61.8	16.9	1	01/23/24 08:15	01/23/24 16:58	74-97-5	
Bromodichloromethane	**<14.7**	ug/kg	61.8	14.7	1	01/23/24 08:15	01/23/24 16:58	75-27-4	
Bromoform	**<272**	ug/kg	309	272	1	01/23/24 08:15	01/23/24 16:58	75-25-2	
Bromomethane	**<86.7**	ug/kg	309	86.7	1	01/23/24 08:15	01/23/24 16:58	74-83-9	
Carbon tetrachloride	**<13.6**	ug/kg	61.8	13.6	1	01/23/24 08:15	01/23/24 16:58	56-23-5	
Chlorobenzene	**<7.4**	ug/kg	61.8	7.4	1	01/23/24 08:15	01/23/24 16:58	108-90-7	
Chloroethane	**<26.1**	ug/kg	309	26.1	1	01/23/24 08:15	01/23/24 16:58	75-00-3	
Chloroform	**<44.3**	ug/kg	309	44.3	1	01/23/24 08:15	01/23/24 16:58	67-66-3	
Chloromethane	**<23.5**	ug/kg	61.8	23.5	1	01/23/24 08:15	01/23/24 16:58	74-87-3	
Dibromochloromethane	**<211**	ug/kg	309	211	1	01/23/24 08:15	01/23/24 16:58	124-48-1	
Dibromomethane	**<18.3**	ug/kg	61.8	18.3	1	01/23/24 08:15	01/23/24 16:58	74-95-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-08-01-02 **Lab ID: 40273365008** Collected: 01/17/24 13:05 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Dichlorodifluoromethane	**<26.6**	ug/kg	61.8	26.6	1	01/23/24 08:15	01/23/24 16:58	75-71-8	
Diisopropyl ether	**<15.3**	ug/kg	61.8	15.3	1	01/23/24 08:15	01/23/24 16:58	108-20-3	
Ethylbenzene	**<14.7**	ug/kg	61.8	14.7	1	01/23/24 08:15	01/23/24 16:58	100-41-4	
Hexachloro-1,3-butadiene	**<123**	ug/kg	309	123	1	01/23/24 08:15	01/23/24 16:58	87-68-3	
Isopropylbenzene (Cumene)	**<16.7**	ug/kg	61.8	16.7	1	01/23/24 08:15	01/23/24 16:58	98-82-8	
Methyl-tert-butyl ether	**<18.2**	ug/kg	61.8	18.2	1	01/23/24 08:15	01/23/24 16:58	1634-04-4	
Methylene Chloride	**<17.2**	ug/kg	61.8	17.2	1	01/23/24 08:15	01/23/24 16:58	75-09-2	
Naphthalene	**<26.0**	ug/kg	309	26.0	1	01/23/24 08:15	01/23/24 16:58	91-20-3	
Styrene	**<15.8**	ug/kg	61.8	15.8	1	01/23/24 08:15	01/23/24 16:58	100-42-5	
Tetrachloroethene	**<24.0**	ug/kg	61.8	24.0	1	01/23/24 08:15	01/23/24 16:58	127-18-4	
Toluene	**<15.6**	ug/kg	61.8	15.6	1	01/23/24 08:15	01/23/24 16:58	108-88-3	
Trichloroethene	**<23.1**	ug/kg	61.8	23.1	1	01/23/24 08:15	01/23/24 16:58	79-01-6	
Trichlorofluoromethane	**<17.9**	ug/kg	61.8	17.9	1	01/23/24 08:15	01/23/24 16:58	75-69-4	
Vinyl chloride	**<12.5**	ug/kg	61.8	12.5	1	01/23/24 08:15	01/23/24 16:58	75-01-4	
cis-1,2-Dichloroethene	**<13.2**	ug/kg	61.8	13.2	1	01/23/24 08:15	01/23/24 16:58	156-59-2	
cis-1,3-Dichloropropene	**<40.8**	ug/kg	309	40.8	1	01/23/24 08:15	01/23/24 16:58	10061-01-5	
m&p-Xylene	**<26.1**	ug/kg	124	26.1	1	01/23/24 08:15	01/23/24 16:58	179601-23-1	
n-Butylbenzene	**<28.3**	ug/kg	61.8	28.3	1	01/23/24 08:15	01/23/24 16:58	104-51-8	
n-Propylbenzene	**<14.8**	ug/kg	61.8	14.8	1	01/23/24 08:15	01/23/24 16:58	103-65-1	
o-Xylene	**<18.6**	ug/kg	61.8	18.6	1	01/23/24 08:15	01/23/24 16:58	95-47-6	
p-Isopropyltoluene	**<21.0**	ug/kg	61.8	21.0	1	01/23/24 08:15	01/23/24 16:58	99-87-6	
sec-Butylbenzene	**<21.2**	ug/kg	61.8	21.2	1	01/23/24 08:15	01/23/24 16:58	135-98-8	
tert-Butylbenzene	**<19.4**	ug/kg	61.8	19.4	1	01/23/24 08:15	01/23/24 16:58	98-06-6	
trans-1,2-Dichloroethene	**<13.5**	ug/kg	61.8	13.5	1	01/23/24 08:15	01/23/24 16:58	156-60-5	
trans-1,3-Dichloropropene	**<177**	ug/kg	309	177	1	01/23/24 08:15	01/23/24 16:58	10061-02-6	
Surrogates									
Toluene-d8 (S)	115	%	70-139		1	01/23/24 08:15	01/23/24 16:58	2037-26-5	
4-Bromofluorobenzene (S)	116	%	72-142		1	01/23/24 08:15	01/23/24 16:58	460-00-4	
1,2-Dichlorobenzene-d4 (S)	125	%	67-144		1	01/23/24 08:15	01/23/24 16:58	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**10.6**	%	0.10	0.10	1		01/22/24 17:48		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**85.4**	%			1	01/27/24 10:45	01/27/24 11:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-09-07-08 **Lab ID: 40273365009** Collected: 01/17/24 13:15 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Pesticides (GC) 8081B	Analytical Method: EPA 8081B Preparation Method: 3546/3665A Pace National - Mt. Juliet								
Aldrin	**<0.00439**	mg/kg	0.0146	0.00439	1	01/28/24 16:09	01/29/24 01:03	309-00-2	
alpha-BHC	**<0.00429**	mg/kg	0.0143	0.00429	1	01/28/24 16:09	01/29/24 01:03	319-84-6	
beta-BHC	**<0.00442**	mg/kg	0.0147	0.00442	1	01/28/24 16:09	01/29/24 01:03	319-85-7	
delta-BHC	**<0.00404**	mg/kg	0.0134	0.00404	1	01/28/24 16:09	01/29/24 01:03	319-86-8	
gamma-BHC (Lindane)	**<0.00401**	mg/kg	0.0134	0.00401	1	01/28/24 16:09	01/29/24 01:03	58-89-9	
Chlordane (Technical)	**<0.120**	mg/kg	0.400	0.120	1	01/28/24 16:09	01/29/24 01:03	57-74-9	
alpha-Chlordane	**<0.00164**	mg/kg	0.00548	0.00164	1	01/28/24 16:09	01/29/24 01:03	5103-71-9	
gamma-Chlordane	**<0.00229**	mg/kg	0.00762	0.00229	1	01/28/24 16:09	01/29/24 01:03	5103-74-2	
4,4'-DDD	**<0.00432**	mg/kg	0.0143	0.00432	1	01/28/24 16:09	01/29/24 01:03	72-54-8	
4,4'-DDE	**<0.00427**	mg/kg	0.0142	0.00427	1	01/28/24 16:09	01/29/24 01:03	72-55-9	
4,4'-DDT	**<0.00731**	mg/kg	0.0244	0.00731	1	01/28/24 16:09	01/29/24 01:03	50-29-3	
Dieldrin	**<0.00401**	mg/kg	0.0134	0.00401	1	01/28/24 16:09	01/29/24 01:03	60-57-1	
Endosulfan I	**<0.00423**	mg/kg	0.0141	0.00423	1	01/28/24 16:09	01/29/24 01:03	959-98-8	
Endosulfan II	**<0.00391**	mg/kg	0.0131	0.00391	1	01/28/24 16:09	01/29/24 01:03	33213-65-9	
Endosulfan sulfate	**<0.00425**	mg/kg	0.0141	0.00425	1	01/28/24 16:09	01/29/24 01:03	1031-07-8	
Endrin	**<0.00408**	mg/kg	0.0136	0.00408	1	01/28/24 16:09	01/29/24 01:03	72-20-8	
Endrin aldehyde	**<0.00395**	mg/kg	0.0132	0.00395	1	01/28/24 16:09	01/29/24 01:03	7421-93-4	
Endrin ketone	**<0.00829**	mg/kg	0.0276	0.00829	1	01/28/24 16:09	01/29/24 01:03	53494-70-5	
Hexachlorobenzene	**<0.00404**	mg/kg	0.0134	0.00404	1	01/28/24 16:09	01/29/24 01:03	118-74-1	
Heptachlor	**<0.00499**	mg/kg	0.0167	0.00499	1	01/28/24 16:09	01/29/24 01:03	76-44-8	
Heptachlor epoxide	**<0.00395**	mg/kg	0.0132	0.00395	1	01/28/24 16:09	01/29/24 01:03	1024-57-3	
Methoxychlor	**<0.00565**	mg/kg	0.0188	0.00565	1	01/28/24 16:09	01/29/24 01:03	72-43-5	
Toxaphene	**<0.145**	mg/kg	0.482	0.145	1	01/28/24 16:09	01/29/24 01:03	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	61.1	%	10.0-135		1	01/28/24 16:09	01/29/24 01:03	2051-24-3	
Tetrachloro-m-xylene (S)	63.7	%	10.0-139		1	01/28/24 16:09	01/29/24 01:03	877-09-8	
Chlorinated Herb. (GC) 8151A	Analytical Method: EPA 8151A Preparation Method: 8151A Pace National - Mt. Juliet								
2,4-D	**<0.00819**	mg/kg	0.0273	0.00819	1	01/29/24 03:25	02/01/24 06:54	94-75-7	
Dalapon	**<0.0132**	mg/kg	0.0440	0.0132	1	01/29/24 03:25	02/01/24 06:54	127-20-8	
2,4-DB	**<0.0346**	mg/kg	0.115	0.0346	1	01/29/24 03:25	02/01/24 06:54	94-82-6	
Dicamba	**<0.0183**	mg/kg	0.0610	0.0183	1	01/29/24 03:25	02/01/24 06:54	1918-00-9	
Dichlorprop	**<0.0286**	mg/kg	0.0953	0.0286	1	01/29/24 03:25	02/01/24 06:54	120-36-5	
Dinoseb	**<0.00813**	mg/kg	0.0271	0.00813	1	01/29/24 03:25	02/01/24 06:54	88-85-7	
MCPA	**<0.517**	mg/kg	1.73	0.517	1	01/29/24 03:25	02/01/24 06:54	94-74-6	
2-(2-methyl-4-chlorophenoxy)pa	**<0.428**	mg/kg	1.42	0.428	1	01/29/24 03:25	02/01/24 06:54	93-65-2	
2,4,5-T	**<0.00994**	mg/kg	0.0331	0.00994	1	01/29/24 03:25	02/01/24 06:54	93-76-5	
2,4,5-TP (Silvex)	**<0.0125**	mg/kg	0.0416	0.0125	1	01/29/24 03:25	02/01/24 06:54	93-72-1	
Surrogates									
2,4-DCAA (S)	58.3	%	22.0-132		1	01/29/24 03:25	02/01/24 06:54	19719-28-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-09-07-08 **Lab ID: 40273365009** Collected: 01/17/24 13:15 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<18.1**	ug/kg	59.3	18.1	1	01/23/24 12:00	01/23/24 21:59	12674-11-2	
PCB-1221 (Aroclor 1221)	**<18.1**	ug/kg	59.3	18.1	1	01/23/24 12:00	01/23/24 21:59	11104-28-2	
PCB-1232 (Aroclor 1232)	**<18.1**	ug/kg	59.3	18.1	1	01/23/24 12:00	01/23/24 21:59	11141-16-5	
PCB-1242 (Aroclor 1242)	**<18.1**	ug/kg	59.3	18.1	1	01/23/24 12:00	01/23/24 21:59	53469-21-9	
PCB-1248 (Aroclor 1248)	**<18.1**	ug/kg	59.3	18.1	1	01/23/24 12:00	01/23/24 21:59	12672-29-6	
PCB-1254 (Aroclor 1254)	**<18.1**	ug/kg	59.3	18.1	1	01/23/24 12:00	01/23/24 21:59	11097-69-1	
PCB-1260 (Aroclor 1260)	**<18.1**	ug/kg	59.3	18.1	1	01/23/24 12:00	01/23/24 21:59	11096-82-5	
PCB, Total	**<18.1**	ug/kg	59.3	18.1	1	01/23/24 12:00	01/23/24 21:59	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	84	%	44-120		1	01/23/24 12:00	01/23/24 21:59	877-09-8	
Decachlorobiphenyl (S)	91	%	34-120		1	01/23/24 12:00	01/23/24 21:59	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**3.0**	mg/kg	2.8	1.6	1	01/23/24 06:13	01/23/24 16:05	7440-38-2	
Barium	**154**	mg/kg	0.56	0.17	1	01/23/24 06:13	01/23/24 16:05	7440-39-3	
Cadmium	**0.25J**	mg/kg	0.56	0.15	1	01/23/24 06:13	01/23/24 16:05	7440-43-9	
Chromium	**25.4**	mg/kg	1.1	0.31	1	01/23/24 06:13	01/23/24 16:05	7440-47-3	
Lead	**9.8**	mg/kg	2.2	0.67	1	01/23/24 06:13	01/23/24 16:05	7439-92-1	
Selenium	**<1.5**	mg/kg	4.5	1.5	1	01/23/24 06:13	01/23/24 16:05	7782-49-2	
Silver	**<0.34**	mg/kg	1.1	0.34	1	01/23/24 06:13	01/23/24 16:05	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**0.021J**	mg/kg	0.039	0.011	1	01/31/24 11:02	02/01/24 13:13	7439-97-6	
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.6**	ug/kg	19.9	2.6	1	01/26/24 07:55	01/26/24 15:39	83-32-9	
Acenaphthylene	**<2.5**	ug/kg	19.9	2.5	1	01/26/24 07:55	01/26/24 15:39	208-96-8	
Anthracene	**<2.5**	ug/kg	19.9	2.5	1	01/26/24 07:55	01/26/24 15:39	120-12-7	
Benzo(a)anthracene	**<2.6**	ug/kg	19.9	2.6	1	01/26/24 07:55	01/26/24 15:39	56-55-3	
Benzo(a)pyrene	**<2.3**	ug/kg	19.9	2.3	1	01/26/24 07:55	01/26/24 15:39	50-32-8	
Benzo(b)fluoranthene	**2.9J**	ug/kg	19.9	2.8	1	01/26/24 07:55	01/26/24 15:39	205-99-2	
Benzo(g,h,i)perylene	**<3.5**	ug/kg	19.9	3.5	1	01/26/24 07:55	01/26/24 15:39	191-24-2	
Benzo(k)fluoranthene	**<2.5**	ug/kg	19.9	2.5	1	01/26/24 07:55	01/26/24 15:39	207-08-9	
Chrysene	**<3.7**	ug/kg	19.9	3.7	1	01/26/24 07:55	01/26/24 15:39	218-01-9	
Dibenz(a,h)anthracene	**<2.8**	ug/kg	19.9	2.8	1	01/26/24 07:55	01/26/24 15:39	53-70-3	
Fluoranthene	**3.7J**	ug/kg	19.9	2.4	1	01/26/24 07:55	01/26/24 15:39	206-44-0	
Fluorene	**<2.4**	ug/kg	19.9	2.4	1	01/26/24 07:55	01/26/24 15:39	86-73-7	
Indeno(1,2,3-cd)pyrene	**<4.1**	ug/kg	19.9	4.1	1	01/26/24 07:55	01/26/24 15:39	193-39-5	
1-Methylnaphthalene	**<2.9**	ug/kg	19.9	2.9	1	01/26/24 07:55	01/26/24 15:39	90-12-0	
2-Methylnaphthalene	**<2.9**	ug/kg	19.9	2.9	1	01/26/24 07:55	01/26/24 15:39	91-57-6	
Naphthalene	**<1.9**	ug/kg	19.9	1.9	1	01/26/24 07:55	01/26/24 15:39	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-09-07-08 **Lab ID: 40273365009** Collected: 01/17/24 13:15 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Phenanthrene	**<2.3**	ug/kg	19.9	2.3	1	01/26/24 07:55	01/26/24 15:39	85-01-8	
Pyrene	**<2.9**	ug/kg	19.9	2.9	1	01/26/24 07:55	01/26/24 15:39	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	48	%	39-120		1	01/26/24 07:55	01/26/24 15:39	321-60-8	
Terphenyl-d14 (S)	57	%	36-120		1	01/26/24 07:55	01/26/24 15:39	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<16.5**	ug/kg	68.9	16.5	1	01/23/24 08:15	01/23/24 17:18	630-20-6	
1,1,1-Trichloroethane	**<17.6**	ug/kg	68.9	17.6	1	01/23/24 08:15	01/23/24 17:18	71-55-6	
1,1,2,2-Tetrachloroethane	**<24.9**	ug/kg	68.9	24.9	1	01/23/24 08:15	01/23/24 17:18	79-34-5	
1,1,2-Trichloroethane	**<25.1**	ug/kg	68.9	25.1	1	01/23/24 08:15	01/23/24 17:18	79-00-5	
1,1-Dichloroethane	**<17.6**	ug/kg	68.9	17.6	1	01/23/24 08:15	01/23/24 17:18	75-34-3	
1,1-Dichloroethene	**<22.9**	ug/kg	68.9	22.9	1	01/23/24 08:15	01/23/24 17:18	75-35-4	
1,1-Dichloropropene	**<22.3**	ug/kg	68.9	22.3	1	01/23/24 08:15	01/23/24 17:18	563-58-6	
1,2,3-Trichlorobenzene	**<76.7**	ug/kg	344	76.7	1	01/23/24 08:15	01/23/24 17:18	87-61-6	
1,2,3-Trichloropropane	**<33.5**	ug/kg	68.9	33.5	1	01/23/24 08:15	01/23/24 17:18	96-18-4	
1,2,4-Trichlorobenzene	**<56.7**	ug/kg	344	56.7	1	01/23/24 08:15	01/23/24 17:18	120-82-1	
1,2,4-Trimethylbenzene	**<20.5**	ug/kg	68.9	20.5	1	01/23/24 08:15	01/23/24 17:18	95-63-6	
1,2-Dibromo-3-chloropropane	**<53.4**	ug/kg	344	53.4	1	01/23/24 08:15	01/23/24 17:18	96-12-8	
1,2-Dibromoethane (EDB)	**<18.9**	ug/kg	68.9	18.9	1	01/23/24 08:15	01/23/24 17:18	106-93-4	
1,2-Dichlorobenzene	**<21.4**	ug/kg	68.9	21.4	1	01/23/24 08:15	01/23/24 17:18	95-50-1	
1,2-Dichloroethane	**<15.8**	ug/kg	68.9	15.8	1	01/23/24 08:15	01/23/24 17:18	107-06-2	
1,2-Dichloropropane	**<16.4**	ug/kg	68.9	16.4	1	01/23/24 08:15	01/23/24 17:18	78-87-5	
1,3,5-Trimethylbenzene	**<22.2**	ug/kg	68.9	22.2	1	01/23/24 08:15	01/23/24 17:18	108-67-8	
1,3-Dichlorobenzene	**<18.9**	ug/kg	68.9	18.9	1	01/23/24 08:15	01/23/24 17:18	541-73-1	
1,3-Dichloropropane	**<15.0**	ug/kg	68.9	15.0	1	01/23/24 08:15	01/23/24 17:18	142-28-9	
1,4-Dichlorobenzene	**<18.9**	ug/kg	68.9	18.9	1	01/23/24 08:15	01/23/24 17:18	106-46-7	
2,2-Dichloropropane	**<18.6**	ug/kg	68.9	18.6	1	01/23/24 08:15	01/23/24 17:18	594-20-7	
2-Chlorotoluene	**<22.3**	ug/kg	68.9	22.3	1	01/23/24 08:15	01/23/24 17:18	95-49-8	
4-Chlorotoluene	**<26.2**	ug/kg	68.9	26.2	1	01/23/24 08:15	01/23/24 17:18	106-43-4	
Benzene	**<16.4**	ug/kg	27.5	16.4	1	01/23/24 08:15	01/23/24 17:18	71-43-2	
Bromobenzene	**<26.9**	ug/kg	68.9	26.9	1	01/23/24 08:15	01/23/24 17:18	108-86-1	
Bromochloromethane	**<18.9**	ug/kg	68.9	18.9	1	01/23/24 08:15	01/23/24 17:18	74-97-5	
Bromodichloromethane	**<16.4**	ug/kg	68.9	16.4	1	01/23/24 08:15	01/23/24 17:18	75-27-4	
Bromoform	**<303**	ug/kg	344	303	1	01/23/24 08:15	01/23/24 17:18	75-25-2	
Bromomethane	**<96.6**	ug/kg	344	96.6	1	01/23/24 08:15	01/23/24 17:18	74-83-9	
Carbon tetrachloride	**<15.2**	ug/kg	68.9	15.2	1	01/23/24 08:15	01/23/24 17:18	56-23-5	
Chlorobenzene	**<8.3**	ug/kg	68.9	8.3	1	01/23/24 08:15	01/23/24 17:18	108-90-7	
Chloroethane	**<29.1**	ug/kg	344	29.1	1	01/23/24 08:15	01/23/24 17:18	75-00-3	
Chloroform	**<49.3**	ug/kg	344	49.3	1	01/23/24 08:15	01/23/24 17:18	67-66-3	
Chloromethane	**<26.2**	ug/kg	68.9	26.2	1	01/23/24 08:15	01/23/24 17:18	74-87-3	
Dibromochloromethane	**<235**	ug/kg	344	235	1	01/23/24 08:15	01/23/24 17:18	124-48-1	
Dibromomethane	**<20.4**	ug/kg	68.9	20.4	1	01/23/24 08:15	01/23/24 17:18	74-95-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-09-07-08 **Lab ID: 40273365009** Collected: 01/17/24 13:15 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Dichlorodifluoromethane	**<29.6**	ug/kg	68.9	29.6	1	01/23/24 08:15	01/23/24 17:18	75-71-8	
Diisopropyl ether	**<17.1**	ug/kg	68.9	17.1	1	01/23/24 08:15	01/23/24 17:18	108-20-3	
Ethylbenzene	**<16.4**	ug/kg	68.9	16.4	1	01/23/24 08:15	01/23/24 17:18	100-41-4	
Hexachloro-1,3-butadiene	**<137**	ug/kg	344	137	1	01/23/24 08:15	01/23/24 17:18	87-68-3	
Isopropylbenzene (Cumene)	**<18.6**	ug/kg	68.9	18.6	1	01/23/24 08:15	01/23/24 17:18	98-82-8	
Methyl-tert-butyl ether	**<20.2**	ug/kg	68.9	20.2	1	01/23/24 08:15	01/23/24 17:18	1634-04-4	
Methylene Chloride	**<19.1**	ug/kg	68.9	19.1	1	01/23/24 08:15	01/23/24 17:18	75-09-2	
Naphthalene	**<29.0**	ug/kg	344	29.0	1	01/23/24 08:15	01/23/24 17:18	91-20-3	
Styrene	**<17.6**	ug/kg	68.9	17.6	1	01/23/24 08:15	01/23/24 17:18	100-42-5	
Tetrachloroethene	**<26.7**	ug/kg	68.9	26.7	1	01/23/24 08:15	01/23/24 17:18	127-18-4	
Toluene	**<17.4**	ug/kg	68.9	17.4	1	01/23/24 08:15	01/23/24 17:18	108-88-3	
Trichloroethene	**<25.8**	ug/kg	68.9	25.8	1	01/23/24 08:15	01/23/24 17:18	79-01-6	
Trichlorofluoromethane	**<20.0**	ug/kg	68.9	20.0	1	01/23/24 08:15	01/23/24 17:18	75-69-4	
Vinyl chloride	**<13.9**	ug/kg	68.9	13.9	1	01/23/24 08:15	01/23/24 17:18	75-01-4	
cis-1,2-Dichloroethene	**<14.7**	ug/kg	68.9	14.7	1	01/23/24 08:15	01/23/24 17:18	156-59-2	
cis-1,3-Dichloropropene	**<45.5**	ug/kg	344	45.5	1	01/23/24 08:15	01/23/24 17:18	10061-01-5	
m&p-Xylene	**<29.1**	ug/kg	138	29.1	1	01/23/24 08:15	01/23/24 17:18	179601-23-1	
n-Butylbenzene	**<31.5**	ug/kg	68.9	31.5	1	01/23/24 08:15	01/23/24 17:18	104-51-8	
n-Propylbenzene	**<16.5**	ug/kg	68.9	16.5	1	01/23/24 08:15	01/23/24 17:18	103-65-1	
o-Xylene	**<20.7**	ug/kg	68.9	20.7	1	01/23/24 08:15	01/23/24 17:18	95-47-6	
p-Isopropyltoluene	**<23.4**	ug/kg	68.9	23.4	1	01/23/24 08:15	01/23/24 17:18	99-87-6	
sec-Butylbenzene	**<23.6**	ug/kg	68.9	23.6	1	01/23/24 08:15	01/23/24 17:18	135-98-8	
tert-Butylbenzene	**<21.6**	ug/kg	68.9	21.6	1	01/23/24 08:15	01/23/24 17:18	98-06-6	
trans-1,2-Dichloroethene	**<15.1**	ug/kg	68.9	15.1	1	01/23/24 08:15	01/23/24 17:18	156-60-5	
trans-1,3-Dichloropropene	**<197**	ug/kg	344	197	1	01/23/24 08:15	01/23/24 17:18	10061-02-6	
Surrogates									
Toluene-d8 (S)	121	%	70-139		1	01/23/24 08:15	01/23/24 17:18	2037-26-5	
4-Bromofluorobenzene (S)	120	%	72-142		1	01/23/24 08:15	01/23/24 17:18	460-00-4	
1,2-Dichlorobenzene-d4 (S)	128	%	67-144		1	01/23/24 08:15	01/23/24 17:18	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**15.9**	%	0.10	0.10	1		01/22/24 17:48		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**85.7**	%			1	01/27/24 10:45	01/27/24 11:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-10-05-06 **Lab ID: 40273365010** Collected: 01/17/24 13:45 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Pesticides (GC) 8081B	Analytical Method: EPA 8081B Preparation Method: 3546/3665A Pace National - Mt. Juliet								
Aldrin	**<0.00465**	mg/kg	0.0155	0.00465	1	01/28/24 16:09	01/29/24 01:12	309-00-2	
alpha-BHC	**<0.00455**	mg/kg	0.0152	0.00455	1	01/28/24 16:09	01/29/24 01:12	319-84-6	
beta-BHC	**<0.00469**	mg/kg	0.0156	0.00469	1	01/28/24 16:09	01/29/24 01:12	319-85-7	
delta-BHC	**<0.00428**	mg/kg	0.0142	0.00428	1	01/28/24 16:09	01/29/24 01:12	319-86-8	
gamma-BHC (Lindane)	**<0.00425**	mg/kg	0.0142	0.00425	1	01/28/24 16:09	01/29/24 01:12	58-89-9	
Chlordane (Technical)	**<0.127**	mg/kg	0.424	0.127	1	01/28/24 16:09	01/29/24 01:12	57-74-9	
alpha-Chlordane	**<0.00174**	mg/kg	0.00581	0.00174	1	01/28/24 16:09	01/29/24 01:12	5103-71-9	
gamma-Chlordane	**<0.00242**	mg/kg	0.00807	0.00242	1	01/28/24 16:09	01/29/24 01:12	5103-74-2	ML
4,4'-DDD	**<0.00457**	mg/kg	0.0152	0.00457	1	01/28/24 16:09	01/29/24 01:12	72-54-8	
4,4'-DDE	**<0.00452**	mg/kg	0.0151	0.00452	1	01/28/24 16:09	01/29/24 01:12	72-55-9	
4,4'-DDT	**<0.00775**	mg/kg	0.0258	0.00775	1	01/28/24 16:09	01/29/24 01:12	50-29-3	
Dieldrin	**<0.00425**	mg/kg	0.0142	0.00425	1	01/28/24 16:09	01/29/24 01:12	60-57-1	
Endosulfan I	**<0.00449**	mg/kg	0.0150	0.00449	1	01/28/24 16:09	01/29/24 01:12	959-98-8	
Endosulfan II	**<0.00414**	mg/kg	0.0138	0.00414	1	01/28/24 16:09	01/29/24 01:12	33213-65-9	
Endosulfan sulfate	**<0.00450**	mg/kg	0.0150	0.00450	1	01/28/24 16:09	01/29/24 01:12	1031-07-8	
Endrin	**<0.00433**	mg/kg	0.0145	0.00433	1	01/28/24 16:09	01/29/24 01:12	72-20-8	
Endrin aldehyde	**<0.00419**	mg/kg	0.0140	0.00419	1	01/28/24 16:09	01/29/24 01:12	7421-93-4	R1
Endrin ketone	**<0.00879**	mg/kg	0.0293	0.00879	1	01/28/24 16:09	01/29/24 01:12	53494-70-5	
Hexachlorobenzene	**<0.00428**	mg/kg	0.0142	0.00428	1	01/28/24 16:09	01/29/24 01:12	118-74-1	
Heptachlor	**<0.00529**	mg/kg	0.0177	0.00529	1	01/28/24 16:09	01/29/24 01:12	76-44-8	
Heptachlor epoxide	**<0.00419**	mg/kg	0.0140	0.00419	1	01/28/24 16:09	01/29/24 01:12	1024-57-3	
Methoxychlor	**<0.00598**	mg/kg	0.0199	0.00598	1	01/28/24 16:09	01/29/24 01:12	72-43-5	
Toxaphene	**<0.153**	mg/kg	0.511	0.153	1	01/28/24 16:09	01/29/24 01:12	8001-35-2	
Surrogates									
Decachlorobiphenyl (S)	60.7	%	10.0-135		1	01/28/24 16:09	01/29/24 01:12	2051-24-3	
Tetrachloro-m-xylene (S)	70.9	%	10.0-139		1	01/28/24 16:09	01/29/24 01:12	877-09-8	
Chlorinated Herb. (GC) 8151A	Analytical Method: EPA 8151A Preparation Method: 8151A Pace National - Mt. Juliet								
2,4-D	**<0.00868**	mg/kg	0.0289	0.00868	1	01/29/24 03:25	02/01/24 07:05	94-75-7	
Dalapon	**<0.0140**	mg/kg	0.0466	0.0140	1	01/29/24 03:25	02/01/24 07:05	127-20-8	
2,4-DB	**<0.0367**	mg/kg	0.122	0.0367	1	01/29/24 03:25	02/01/24 07:05	94-82-6	
Dicamba	**<0.0194**	mg/kg	0.0647	0.0194	1	01/29/24 03:25	02/01/24 07:05	1918-00-9	
Dichlorprop	**<0.0303**	mg/kg	0.101	0.0303	1	01/29/24 03:25	02/01/24 07:05	120-36-5	
Dinoseb	**<0.00862**	mg/kg	0.0287	0.00862	1	01/29/24 03:25	02/01/24 07:05	88-85-7	
MCPA	**<0.548**	mg/kg	1.83	0.548	1	01/29/24 03:25	02/01/24 07:05	94-74-6	
2-(2-methyl-4-chlorophenoxy)pa	**<0.454**	mg/kg	1.51	0.454	1	01/29/24 03:25	02/01/24 07:05	93-65-2	
2,4,5-T	**<0.0105**	mg/kg	0.0351	0.0105	1	01/29/24 03:25	02/01/24 07:05	93-76-5	
2,4,5-TP (Silvex)	**<0.0132**	mg/kg	0.0441	0.0132	1	01/29/24 03:25	02/01/24 07:05	93-72-1	
Surrogates									
2,4-DCAA (S)	59.7	%	22.0-132		1	01/29/24 03:25	02/01/24 07:05	19719-28-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-10-05-06 **Lab ID: 40273365010** Collected: 01/17/24 13:45 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<19.2**	ug/kg	62.9	19.2	1	01/23/24 12:00	01/23/24 22:22	12674-11-2	
PCB-1221 (Aroclor 1221)	**<19.2**	ug/kg	62.9	19.2	1	01/23/24 12:00	01/23/24 22:22	11104-28-2	
PCB-1232 (Aroclor 1232)	**<19.2**	ug/kg	62.9	19.2	1	01/23/24 12:00	01/23/24 22:22	11141-16-5	
PCB-1242 (Aroclor 1242)	**<19.2**	ug/kg	62.9	19.2	1	01/23/24 12:00	01/23/24 22:22	53469-21-9	
PCB-1248 (Aroclor 1248)	**<19.2**	ug/kg	62.9	19.2	1	01/23/24 12:00	01/23/24 22:22	12672-29-6	
PCB-1254 (Aroclor 1254)	**<19.2**	ug/kg	62.9	19.2	1	01/23/24 12:00	01/23/24 22:22	11097-69-1	
PCB-1260 (Aroclor 1260)	**<19.2**	ug/kg	62.9	19.2	1	01/23/24 12:00	01/23/24 22:22	11096-82-5	
PCB, Total	**<19.2**	ug/kg	62.9	19.2	1	01/23/24 12:00	01/23/24 22:22	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	44-120		1	01/23/24 12:00	01/23/24 22:22	877-09-8	
Decachlorobiphenyl (S)	93	%	34-120		1	01/23/24 12:00	01/23/24 22:22	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**5.2**	mg/kg	3.1	1.8	1	01/23/24 06:13	01/23/24 15:36	7440-38-2	
Barium	**90.4**	mg/kg	0.63	0.19	1	01/23/24 06:13	01/23/24 15:36	7440-39-3	M0
Cadmium	**<0.17**	mg/kg	0.63	0.17	1	01/23/24 06:13	01/23/24 15:36	7440-43-9	
Chromium	**23.3**	mg/kg	1.3	0.35	1	01/23/24 06:13	01/23/24 15:36	7440-47-3	
Lead	**8.1**	mg/kg	2.5	0.75	1	01/23/24 06:13	01/23/24 15:36	7439-92-1	
Selenium	**<1.6**	mg/kg	5.0	1.6	1	01/23/24 06:13	01/23/24 15:36	7782-49-2	
Silver	**<0.39**	mg/kg	1.3	0.39	1	01/23/24 06:13	01/23/24 15:36	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**<0.012**	mg/kg	0.044	0.012	1	01/31/24 11:02	02/01/24 12:43	7439-97-6	
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.7**	ug/kg	21.0	2.7	1	01/26/24 07:55	01/26/24 11:04	83-32-9	
Acenaphthylene	**<2.7**	ug/kg	21.0	2.7	1	01/26/24 07:55	01/26/24 11:04	208-96-8	
Anthracene	**<2.6**	ug/kg	21.0	2.6	1	01/26/24 07:55	01/26/24 11:04	120-12-7	
Benzo(a)anthracene	**<2.7**	ug/kg	21.0	2.7	1	01/26/24 07:55	01/26/24 11:04	56-55-3	
Benzo(a)pyrene	**<2.4**	ug/kg	21.0	2.4	1	01/26/24 07:55	01/26/24 11:04	50-32-8	
Benzo(b)fluoranthene	**<2.9**	ug/kg	21.0	2.9	1	01/26/24 07:55	01/26/24 11:04	205-99-2	
Benzo(g,h,i)perylene	**<3.7**	ug/kg	21.0	3.7	1	01/26/24 07:55	01/26/24 11:04	191-24-2	
Benzo(k)fluoranthene	**<2.7**	ug/kg	21.0	2.7	1	01/26/24 07:55	01/26/24 11:04	207-08-9	
Chrysene	**<4.0**	ug/kg	21.0	4.0	1	01/26/24 07:55	01/26/24 11:04	218-01-9	
Dibenz(a,h)anthracene	**<2.9**	ug/kg	21.0	2.9	1	01/26/24 07:55	01/26/24 11:04	53-70-3	
Fluoranthene	**<2.5**	ug/kg	21.0	2.5	1	01/26/24 07:55	01/26/24 11:04	206-44-0	
Fluorene	**<2.5**	ug/kg	21.0	2.5	1	01/26/24 07:55	01/26/24 11:04	86-73-7	
Indeno(1,2,3-cd)pyrene	**<4.4**	ug/kg	21.0	4.4	1	01/26/24 07:55	01/26/24 11:04	193-39-5	
1-Methylnaphthalene	**<3.1**	ug/kg	21.0	3.1	1	01/26/24 07:55	01/26/24 11:04	90-12-0	
2-Methylnaphthalene	**<3.1**	ug/kg	21.0	3.1	1	01/26/24 07:55	01/26/24 11:04	91-57-6	
Naphthalene	**<2.0**	ug/kg	21.0	2.0	1	01/26/24 07:55	01/26/24 11:04	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-10-05-06 **Lab ID: 40273365010** Collected: 01/17/24 13:45 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Phenanthrene	**<2.4**	ug/kg	21.0	2.4	1	01/26/24 07:55	01/26/24 11:04	85-01-8	
Pyrene	**<3.1**	ug/kg	21.0	3.1	1	01/26/24 07:55	01/26/24 11:04	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	53	%	39-120		1	01/26/24 07:55	01/26/24 11:04	321-60-8	
Terphenyl-d14 (S)	67	%	36-120		1	01/26/24 07:55	01/26/24 11:04	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<18.3**	ug/kg	76.1	18.3	1	01/23/24 08:15	01/23/24 14:22	630-20-6	
1,1,1-Trichloroethane	**<19.5**	ug/kg	76.1	19.5	1	01/23/24 08:15	01/23/24 14:22	71-55-6	
1,1,2,2-Tetrachloroethane	**<27.6**	ug/kg	76.1	27.6	1	01/23/24 08:15	01/23/24 14:22	79-34-5	
1,1,2-Trichloroethane	**<27.7**	ug/kg	76.1	27.7	1	01/23/24 08:15	01/23/24 14:22	79-00-5	
1,1-Dichloroethane	**<19.5**	ug/kg	76.1	19.5	1	01/23/24 08:15	01/23/24 14:22	75-34-3	M1
1,1-Dichloroethene	**<25.3**	ug/kg	76.1	25.3	1	01/23/24 08:15	01/23/24 14:22	75-35-4	
1,1-Dichloropropene	**<24.7**	ug/kg	76.1	24.7	1	01/23/24 08:15	01/23/24 14:22	563-58-6	
1,2,3-Trichlorobenzene	**<84.8**	ug/kg	381	84.8	1	01/23/24 08:15	01/23/24 14:22	87-61-6	
1,2,3-Trichloropropane	**<37.0**	ug/kg	76.1	37.0	1	01/23/24 08:15	01/23/24 14:22	96-18-4	
1,2,4-Trichlorobenzene	**<62.7**	ug/kg	381	62.7	1	01/23/24 08:15	01/23/24 14:22	120-82-1	
1,2,4-Trimethylbenzene	**<22.7**	ug/kg	76.1	22.7	1	01/23/24 08:15	01/23/24 14:22	95-63-6	
1,2-Dibromo-3-chloropropane	**<59.1**	ug/kg	381	59.1	1	01/23/24 08:15	01/23/24 14:22	96-12-8	
1,2-Dibromoethane (EDB)	**<20.9**	ug/kg	76.1	20.9	1	01/23/24 08:15	01/23/24 14:22	106-93-4	
1,2-Dichlorobenzene	**<23.6**	ug/kg	76.1	23.6	1	01/23/24 08:15	01/23/24 14:22	95-50-1	M1
1,2-Dichloroethane	**<17.5**	ug/kg	76.1	17.5	1	01/23/24 08:15	01/23/24 14:22	107-06-2	
1,2-Dichloropropane	**<18.1**	ug/kg	76.1	18.1	1	01/23/24 08:15	01/23/24 14:22	78-87-5	M1
1,3,5-Trimethylbenzene	**<24.5**	ug/kg	76.1	24.5	1	01/23/24 08:15	01/23/24 14:22	108-67-8	
1,3-Dichlorobenzene	**<20.9**	ug/kg	76.1	20.9	1	01/23/24 08:15	01/23/24 14:22	541-73-1	M1
1,3-Dichloropropane	**<16.6**	ug/kg	76.1	16.6	1	01/23/24 08:15	01/23/24 14:22	142-28-9	
1,4-Dichlorobenzene	**<20.9**	ug/kg	76.1	20.9	1	01/23/24 08:15	01/23/24 14:22	106-46-7	
2,2-Dichloropropane	**<20.6**	ug/kg	76.1	20.6	1	01/23/24 08:15	01/23/24 14:22	594-20-7	
2-Chlorotoluene	**<24.7**	ug/kg	76.1	24.7	1	01/23/24 08:15	01/23/24 14:22	95-49-8	
4-Chlorotoluene	**<28.9**	ug/kg	76.1	28.9	1	01/23/24 08:15	01/23/24 14:22	106-43-4	
Benzene	**<18.1**	ug/kg	30.4	18.1	1	01/23/24 08:15	01/23/24 14:22	71-43-2	
Bromobenzene	**<29.7**	ug/kg	76.1	29.7	1	01/23/24 08:15	01/23/24 14:22	108-86-1	
Bromochloromethane	**<20.9**	ug/kg	76.1	20.9	1	01/23/24 08:15	01/23/24 14:22	74-97-5	
Bromodichloromethane	**<18.1**	ug/kg	76.1	18.1	1	01/23/24 08:15	01/23/24 14:22	75-27-4	
Bromoform	**<335**	ug/kg	381	335	1	01/23/24 08:15	01/23/24 14:22	75-25-2	
Bromomethane	**<107**	ug/kg	381	107	1	01/23/24 08:15	01/23/24 14:22	74-83-9	
Carbon tetrachloride	**<16.7**	ug/kg	76.1	16.7	1	01/23/24 08:15	01/23/24 14:22	56-23-5	
Chlorobenzene	**<9.1**	ug/kg	76.1	9.1	1	01/23/24 08:15	01/23/24 14:22	108-90-7	
Chloroethane	**<32.1**	ug/kg	381	32.1	1	01/23/24 08:15	01/23/24 14:22	75-00-3	
Chloroform	**<54.5**	ug/kg	381	54.5	1	01/23/24 08:15	01/23/24 14:22	67-66-3	M1
Chloromethane	**<28.9**	ug/kg	76.1	28.9	1	01/23/24 08:15	01/23/24 14:22	74-87-3	
Dibromochloromethane	**<260**	ug/kg	381	260	1	01/23/24 08:15	01/23/24 14:22	124-48-1	
Dibromomethane	**<22.5**	ug/kg	76.1	22.5	1	01/23/24 08:15	01/23/24 14:22	74-95-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: SB-10-05-06 **Lab ID: 40273365010** Collected: 01/17/24 13:45 Received: 01/22/24 15:20 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Dichlorodifluoromethane	**<32.7**	ug/kg	76.1	32.7	1	01/23/24 08:15	01/23/24 14:22	75-71-8	
Diisopropyl ether	**<18.9**	ug/kg	76.1	18.9	1	01/23/24 08:15	01/23/24 14:22	108-20-3	
Ethylbenzene	**<18.1**	ug/kg	76.1	18.1	1	01/23/24 08:15	01/23/24 14:22	100-41-4	M1
Hexachloro-1,3-butadiene	**<151**	ug/kg	381	151	1	01/23/24 08:15	01/23/24 14:22	87-68-3	
Isopropylbenzene (Cumene)	**<20.6**	ug/kg	76.1	20.6	1	01/23/24 08:15	01/23/24 14:22	98-82-8	
Methyl-tert-butyl ether	**<22.4**	ug/kg	76.1	22.4	1	01/23/24 08:15	01/23/24 14:22	1634-04-4	
Methylene Chloride	**<21.2**	ug/kg	76.1	21.2	1	01/23/24 08:15	01/23/24 14:22	75-09-2	
Naphthalene	**<32.0**	ug/kg	381	32.0	1	01/23/24 08:15	01/23/24 14:22	91-20-3	
Styrene	**<19.5**	ug/kg	76.1	19.5	1	01/23/24 08:15	01/23/24 14:22	100-42-5	M1
Tetrachloroethene	**<29.5**	ug/kg	76.1	29.5	1	01/23/24 08:15	01/23/24 14:22	127-18-4	
Toluene	**<19.2**	ug/kg	76.1	19.2	1	01/23/24 08:15	01/23/24 14:22	108-88-3	M1
Trichloroethene	**<28.5**	ug/kg	76.1	28.5	1	01/23/24 08:15	01/23/24 14:22	79-01-6	
Trichlorofluoromethane	**<22.1**	ug/kg	76.1	22.1	1	01/23/24 08:15	01/23/24 14:22	75-69-4	
Vinyl chloride	**<15.4**	ug/kg	76.1	15.4	1	01/23/24 08:15	01/23/24 14:22	75-01-4	
cis-1,2-Dichloroethene	**<16.3**	ug/kg	76.1	16.3	1	01/23/24 08:15	01/23/24 14:22	156-59-2	
cis-1,3-Dichloropropene	**<50.2**	ug/kg	381	50.2	1	01/23/24 08:15	01/23/24 14:22	10061-01-5	
m&p-Xylene	**<32.1**	ug/kg	152	32.1	1	01/23/24 08:15	01/23/24 14:22	179601-23-1	
n-Butylbenzene	**<34.9**	ug/kg	76.1	34.9	1	01/23/24 08:15	01/23/24 14:22	104-51-8	
n-Propylbenzene	**<18.3**	ug/kg	76.1	18.3	1	01/23/24 08:15	01/23/24 14:22	103-65-1	
o-Xylene	**<22.8**	ug/kg	76.1	22.8	1	01/23/24 08:15	01/23/24 14:22	95-47-6	
p-Isopropyltoluene	**<25.9**	ug/kg	76.1	25.9	1	01/23/24 08:15	01/23/24 14:22	99-87-6	
sec-Butylbenzene	**<26.1**	ug/kg	76.1	26.1	1	01/23/24 08:15	01/23/24 14:22	135-98-8	
tert-Butylbenzene	**<23.9**	ug/kg	76.1	23.9	1	01/23/24 08:15	01/23/24 14:22	98-06-6	
trans-1,2-Dichloroethene	**<16.6**	ug/kg	76.1	16.6	1	01/23/24 08:15	01/23/24 14:22	156-60-5	
trans-1,3-Dichloropropene	**<218**	ug/kg	381	218	1	01/23/24 08:15	01/23/24 14:22	10061-02-6	
Surrogates									
Toluene-d8 (S)	120	%	70-139		1	01/23/24 08:15	01/23/24 14:22	2037-26-5	
4-Bromofluorobenzene (S)	121	%	72-142		1	01/23/24 08:15	01/23/24 14:22	460-00-4	
1,2-Dichlorobenzene-d4 (S)	127	%	67-144		1	01/23/24 08:15	01/23/24 14:22	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**20.7**	%	0.10	0.10	1		01/22/24 17:48		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**80.9**	%			1	01/27/24 10:45	01/27/24 11:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: MEOH BLANK **Lab ID: 40273365011** Collected: 01/17/24 00:00 Received: 01/22/24 15:20 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
1,1,1,2-Tetrachloroethane	**<12.0**	ug/kg	50.0	12.0	1	01/23/24 08:15	01/23/24 14:03	630-20-6	
1,1,1-Trichloroethane	**<12.8**	ug/kg	50.0	12.8	1	01/23/24 08:15	01/23/24 14:03	71-55-6	
1,1,2,2-Tetrachloroethane	**<18.1**	ug/kg	50.0	18.1	1	01/23/24 08:15	01/23/24 14:03	79-34-5	
1,1,2-Trichloroethane	**<18.2**	ug/kg	50.0	18.2	1	01/23/24 08:15	01/23/24 14:03	79-00-5	
1,1-Dichloroethane	**<12.8**	ug/kg	50.0	12.8	1	01/23/24 08:15	01/23/24 14:03	75-34-3	
1,1-Dichloroethene	**<16.6**	ug/kg	50.0	16.6	1	01/23/24 08:15	01/23/24 14:03	75-35-4	
1,1-Dichloropropene	**<16.2**	ug/kg	50.0	16.2	1	01/23/24 08:15	01/23/24 14:03	563-58-6	
1,2,3-Trichlorobenzene	**<55.7**	ug/kg	250	55.7	1	01/23/24 08:15	01/23/24 14:03	87-61-6	
1,2,3-Trichloropropane	**<24.3**	ug/kg	50.0	24.3	1	01/23/24 08:15	01/23/24 14:03	96-18-4	
1,2,4-Trichlorobenzene	**<41.2**	ug/kg	250	41.2	1	01/23/24 08:15	01/23/24 14:03	120-82-1	
1,2,4-Trimethylbenzene	**<14.9**	ug/kg	50.0	14.9	1	01/23/24 08:15	01/23/24 14:03	95-63-6	
1,2-Dibromo-3-chloropropane	**<38.8**	ug/kg	250	38.8	1	01/23/24 08:15	01/23/24 14:03	96-12-8	
1,2-Dibromoethane (EDB)	**<13.7**	ug/kg	50.0	13.7	1	01/23/24 08:15	01/23/24 14:03	106-93-4	
1,2-Dichlorobenzene	**<15.5**	ug/kg	50.0	15.5	1	01/23/24 08:15	01/23/24 14:03	95-50-1	
1,2-Dichloroethane	**<11.5**	ug/kg	50.0	11.5	1	01/23/24 08:15	01/23/24 14:03	107-06-2	
1,2-Dichloropropane	**<11.9**	ug/kg	50.0	11.9	1	01/23/24 08:15	01/23/24 14:03	78-87-5	
1,3,5-Trimethylbenzene	**<16.1**	ug/kg	50.0	16.1	1	01/23/24 08:15	01/23/24 14:03	108-67-8	
1,3-Dichlorobenzene	**<13.7**	ug/kg	50.0	13.7	1	01/23/24 08:15	01/23/24 14:03	541-73-1	
1,3-Dichloropropane	**<10.9**	ug/kg	50.0	10.9	1	01/23/24 08:15	01/23/24 14:03	142-28-9	
1,4-Dichlorobenzene	**<13.7**	ug/kg	50.0	13.7	1	01/23/24 08:15	01/23/24 14:03	106-46-7	
2,2-Dichloropropane	**<13.5**	ug/kg	50.0	13.5	1	01/23/24 08:15	01/23/24 14:03	594-20-7	
2-Chlorotoluene	**<16.2**	ug/kg	50.0	16.2	1	01/23/24 08:15	01/23/24 14:03	95-49-8	
4-Chlorotoluene	**<19.0**	ug/kg	50.0	19.0	1	01/23/24 08:15	01/23/24 14:03	106-43-4	
Benzene	**<11.9**	ug/kg	20.0	11.9	1	01/23/24 08:15	01/23/24 14:03	71-43-2	
Bromobenzene	**<19.5**	ug/kg	50.0	19.5	1	01/23/24 08:15	01/23/24 14:03	108-86-1	
Bromochloromethane	**<13.7**	ug/kg	50.0	13.7	1	01/23/24 08:15	01/23/24 14:03	74-97-5	
Bromodichloromethane	**<11.9**	ug/kg	50.0	11.9	1	01/23/24 08:15	01/23/24 14:03	75-27-4	
Bromoform	**<220**	ug/kg	250	220	1	01/23/24 08:15	01/23/24 14:03	75-25-2	
Bromomethane	**<70.1**	ug/kg	250	70.1	1	01/23/24 08:15	01/23/24 14:03	74-83-9	
Carbon tetrachloride	**<11.0**	ug/kg	50.0	11.0	1	01/23/24 08:15	01/23/24 14:03	56-23-5	
Chlorobenzene	**<6.0**	ug/kg	50.0	6.0	1	01/23/24 08:15	01/23/24 14:03	108-90-7	
Chloroethane	**<21.1**	ug/kg	250	21.1	1	01/23/24 08:15	01/23/24 14:03	75-00-3	
Chloroform	**<35.8**	ug/kg	250	35.8	1	01/23/24 08:15	01/23/24 14:03	67-66-3	
Chloromethane	**<19.0**	ug/kg	50.0	19.0	1	01/23/24 08:15	01/23/24 14:03	74-87-3	
Dibromochloromethane	**<171**	ug/kg	250	171	1	01/23/24 08:15	01/23/24 14:03	124-48-1	
Dibromomethane	**<14.8**	ug/kg	50.0	14.8	1	01/23/24 08:15	01/23/24 14:03	74-95-3	
Dichlorodifluoromethane	**<21.5**	ug/kg	50.0	21.5	1	01/23/24 08:15	01/23/24 14:03	75-71-8	
Diisopropyl ether	**<12.4**	ug/kg	50.0	12.4	1	01/23/24 08:15	01/23/24 14:03	108-20-3	
Ethylbenzene	**<11.9**	ug/kg	50.0	11.9	1	01/23/24 08:15	01/23/24 14:03	100-41-4	
Hexachloro-1,3-butadiene	**<99.4**	ug/kg	250	99.4	1	01/23/24 08:15	01/23/24 14:03	87-68-3	
Isopropylbenzene (Cumene)	**<13.5**	ug/kg	50.0	13.5	1	01/23/24 08:15	01/23/24 14:03	98-82-8	
Methyl-tert-butyl ether	**<14.7**	ug/kg	50.0	14.7	1	01/23/24 08:15	01/23/24 14:03	1634-04-4	
Methylene Chloride	**<13.9**	ug/kg	50.0	13.9	1	01/23/24 08:15	01/23/24 14:03	75-09-2	
Naphthalene	**<21.0**	ug/kg	250	21.0	1	01/23/24 08:15	01/23/24 14:03	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 3160240026 USGS
Pace Project No.: 40273365

Sample: MEOH BLANK **Lab ID: 40273365011** Collected: 01/17/24 00:00 Received: 01/22/24 15:20 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Styrene	**<12.8**	ug/kg	50.0	12.8	1	01/23/24 08:15	01/23/24 14:03	100-42-5	
Tetrachloroethene	**<19.4**	ug/kg	50.0	19.4	1	01/23/24 08:15	01/23/24 14:03	127-18-4	
Toluene	**<12.6**	ug/kg	50.0	12.6	1	01/23/24 08:15	01/23/24 14:03	108-88-3	
Trichloroethene	**<18.7**	ug/kg	50.0	18.7	1	01/23/24 08:15	01/23/24 14:03	79-01-6	
Trichlorofluoromethane	**<14.5**	ug/kg	50.0	14.5	1	01/23/24 08:15	01/23/24 14:03	75-69-4	
Vinyl chloride	**<10.1**	ug/kg	50.0	10.1	1	01/23/24 08:15	01/23/24 14:03	75-01-4	
cis-1,2-Dichloroethene	**<10.7**	ug/kg	50.0	10.7	1	01/23/24 08:15	01/23/24 14:03	156-59-2	
cis-1,3-Dichloropropene	**<33.0**	ug/kg	250	33.0	1	01/23/24 08:15	01/23/24 14:03	10061-01-5	
m&p-Xylene	**<21.1**	ug/kg	100	21.1	1	01/23/24 08:15	01/23/24 14:03	179601-23-1	
n-Butylbenzene	**<22.9**	ug/kg	50.0	22.9	1	01/23/24 08:15	01/23/24 14:03	104-51-8	
n-Propylbenzene	**<12.0**	ug/kg	50.0	12.0	1	01/23/24 08:15	01/23/24 14:03	103-65-1	
o-Xylene	**<15.0**	ug/kg	50.0	15.0	1	01/23/24 08:15	01/23/24 14:03	95-47-6	
p-Isopropyltoluene	**<17.0**	ug/kg	50.0	17.0	1	01/23/24 08:15	01/23/24 14:03	99-87-6	
sec-Butylbenzene	**<17.2**	ug/kg	50.0	17.2	1	01/23/24 08:15	01/23/24 14:03	135-98-8	
tert-Butylbenzene	**<15.7**	ug/kg	50.0	15.7	1	01/23/24 08:15	01/23/24 14:03	98-06-6	
trans-1,2-Dichloroethene	**<10.9**	ug/kg	50.0	10.9	1	01/23/24 08:15	01/23/24 14:03	156-60-5	
trans-1,3-Dichloropropene	**<143**	ug/kg	250	143	1	01/23/24 08:15	01/23/24 14:03	10061-02-6	
Surrogates									
Toluene-d8 (S)	98	%	70-139		1	01/23/24 08:15	01/23/24 14:03	2037-26-5	
4-Bromofluorobenzene (S)	102	%	72-142		1	01/23/24 08:15	01/23/24 14:03	460-00-4	
1,2-Dichlorobenzene-d4 (S)	108	%	67-144		1	01/23/24 08:15	01/23/24 14:03	2199-69-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

QC Batch: 2214803
QC Batch Method: 3546/3665A
Analysis Method: EPA 8081B
Analysis Description: Pesticides (GC) 8081B
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

METHOD BLANK: R4027664-1 Matrix: Solid
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aldrin	mg/kg	<0.00376	0.0125	01/28/24 23:35	
alpha-BHC	mg/kg	<0.00368	0.0123	01/28/24 23:35	
beta-BHC	mg/kg	<0.00379	0.0126	01/28/24 23:35	
delta-BHC	mg/kg	<0.00346	0.0115	01/28/24 23:35	
gamma-BHC (Lindane)	mg/kg	<0.00344	0.0115	01/28/24 23:35	
Chlordane (Technical)	mg/kg	<0.103	0.343	01/28/24 23:35	
alpha-Chlordane	mg/kg	<0.00141	0.00470	01/28/24 23:35	
gamma-Chlordane	mg/kg	<0.00196	0.00653	01/28/24 23:35	
4,4'-DDD	mg/kg	<0.00370	0.0123	01/28/24 23:35	
4,4'-DDE	mg/kg	<0.00366	0.0122	01/28/24 23:35	
4,4'-DDT	mg/kg	<0.00627	0.0209	01/28/24 23:35	
Dieldrin	mg/kg	<0.00344	0.0115	01/28/24 23:35	
Endosulfan I	mg/kg	<0.00363	0.0121	01/28/24 23:35	
Endosulfan II	mg/kg	<0.00335	0.0112	01/28/24 23:35	
Endosulfan sulfate	mg/kg	<0.00364	0.0121	01/28/24 23:35	
Endrin	mg/kg	<0.00350	0.0117	01/28/24 23:35	
Endrin aldehyde	mg/kg	<0.00339	0.0113	01/28/24 23:35	
Endrin ketone	mg/kg	<0.00711	0.0237	01/28/24 23:35	
Hexachlorobenzene	mg/kg	<0.00346	0.0115	01/28/24 23:35	
Heptachlor	mg/kg	<0.00428	0.0143	01/28/24 23:35	
Heptachlor epoxide	mg/kg	<0.00339	0.0113	01/28/24 23:35	
Methoxychlor	mg/kg	<0.00484	0.0161	01/28/24 23:35	
Toxaphene	mg/kg	<0.124	0.413	01/28/24 23:35	
Decachlorobiphenyl (S)	%	69.7	10.0-135	01/28/24 23:35	
Tetrachloro-m-xylene (S)	%	75.5	10.0-139	01/28/24 23:35	

LABORATORY CONTROL SAMPLE: R4027664-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aldrin	mg/kg	0.0666	0.0580	87.1	34.0-136	
alpha-BHC	mg/kg	0.0666	0.0606	91.0	34.0-139	
beta-BHC	mg/kg	0.0666	0.0516	77.5	34.0-133	
delta-BHC	mg/kg	0.0666	0.0578	86.8	34.0-135	
gamma-BHC (Lindane)	mg/kg	0.0666	0.0592	88.9	34.0-136	
alpha-Chlordane	mg/kg	0.0666	0.0573	86.0	70.0-130	
gamma-Chlordane	mg/kg	0.0666	0.0571	85.7	70.0-130	
4,4'-DDD	mg/kg	0.0666	0.0582	87.4	33.0-141	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

LABORATORY CONTROL SAMPLE: R4027664-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDE	mg/kg	0.0666	0.0564	84.7	34.0-134	
4,4'-DDT	mg/kg	0.0666	0.0597	89.6	30.0-143	
Dieldrin	mg/kg	0.0666	0.0588	88.3	35.0-137	
Endosulfan I	mg/kg	0.0666	0.0580	87.1	34.0-134	
Endosulfan II	mg/kg	0.0666	0.0544	81.7	35.0-132	
Endosulfan sulfate	mg/kg	0.0666	0.0526	79.0	35.0-132	
Endrin	mg/kg	0.0666	0.0589	88.4	34.0-137	
Endrin aldehyde	mg/kg	0.0666	0.0386	58.0	23.0-121	P9
Endrin ketone	mg/kg	0.0666	0.0547	82.1	35.0-144	
Hexachlorobenzene	mg/kg	0.0666	0.0550	82.6	33.0-129	
Heptachlor	mg/kg	0.0666	0.0637	95.6	36.0-141	
Heptachlor epoxide	mg/kg	0.0666	0.0597	89.6	36.0-134	
Methoxychlor	mg/kg	0.0666	0.0648	97.3	28.0-150	
Decachlorobiphenyl (S)	%			76.0	10.0-135	
Tetrachloro-m-xylene (S)	%			78.5	10.0-139	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4027664-3 R4027664-4

Parameter	Units	40273365010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aldrin	mg/kg	ND	0.0823	0.0823	0.0757	0.0590	91.9	71.6	20.0-135	24.8	37	
alpha-BHC	mg/kg	ND	0.0823	0.0823	0.0807	0.0670	98.0	81.4	27.0-140	18.6	35	
beta-BHC	mg/kg	ND	0.0823	0.0823	0.0692	0.0574	84.1	69.7	23.0-141	18.8	37	
delta-BHC	mg/kg	ND	0.0823	0.0823	0.0770	0.0637	93.5	77.3	21.0-138	19.0	35	
gamma-BHC (Lindane)	mg/kg	ND	0.0823	0.0823	0.0797	0.0658	96.8	79.9	27.0-137	19.2	36	
alpha-Chlordane	mg/kg	ND	0.0823	0.0823	0.0748	0.0577	90.8	70.1	70.0-130	25.7	30	
gamma-Chlordane	mg/kg	ND	0.0823	0.0823	0.0712	0.0553	86.5	67.1	70.0-130	25.2	30	ML
4,4'-DDD	mg/kg	ND	0.0823	0.0823	0.0801	0.0609	97.3	74.0	15.0-152	27.2	39	
4,4'-DDE	mg/kg	ND	0.0823	0.0823	0.0758	0.0570	92.0	69.2	10.0-152	28.3	40	
4,4'-DDT	mg/kg	ND	0.0823	0.0823	0.0816	0.0575	99.1	69.8	10.0-151	34.7	40	
Dieldrin	mg/kg	ND	0.0823	0.0823	0.0787	0.0627	95.6	76.1	17.0-145	22.7	37	
Endosulfan I	mg/kg	ND	0.0823	0.0823	0.0773	0.0616	93.8	74.8	20.0-137	22.6	36	
Endosulfan II	mg/kg	ND	0.0823	0.0823	0.0748	0.0595	90.8	72.2	15.0-141	22.8	37	
Endosulfan sulfate	mg/kg	ND	0.0823	0.0823	0.0711	0.0554	86.3	67.3	15.0-143	24.8	38	
Endrin	mg/kg	ND	0.0823	0.0823	0.0806	0.0644	97.9	78.2	19.0-143	22.3	37	
Endrin aldehyde	mg/kg	ND	0.0823	0.0823	0.0737	0.0389	89.5	47.3	10.0-139	61.7	40	P9,R1
Endrin ketone	mg/kg	ND	0.0823	0.0823	0.0747	0.0590	90.7	71.6	17.0-149	23.5	38	
Hexachlorobenzene	mg/kg	ND	0.0823	0.0823	0.0724	0.0586	88.0	71.2	25.0-126	21.1	35	
Heptachlor	mg/kg	ND	0.0823	0.0823	0.0834	0.0653	101	79.3	22.0-138	24.4	37	
Heptachlor epoxide	mg/kg	ND	0.0823	0.0823	0.0784	0.0623	95.2	75.7	22.0-138	22.8	36	
Methoxychlor	mg/kg	ND	0.0823	0.0823	0.0846	0.0630	103	76.6	10.0-159	29.1	40	
Decachlorobiphenyl (S)	%						80.0	55.6	10.0-135			
Tetrachloro-m-xylene (S)	%						82.3	65.2	10.0-139			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

QC Batch: 2211880
QC Batch Method: 8151A
Analysis Method: EPA 8151A
Analysis Description: Chlorinated Herb. (GC) 8151A
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004

METHOD BLANK: R4028381-1 Matrix: Solid
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4-D	mg/kg	<0.00702	0.0234	01/30/24 14:31	
Dalapon	mg/kg	<0.0113	0.0377	01/30/24 14:31	
2,4-DB	mg/kg	<0.0297	0.0990	01/30/24 14:31	
Dicamba	mg/kg	<0.0157	0.0523	01/30/24 14:31	
Dichlorprop	mg/kg	<0.0245	0.0817	01/30/24 14:31	
Dinoseb	mg/kg	<0.00697	0.0232	01/30/24 14:31	
MCPA	mg/kg	<0.443	1.48	01/30/24 14:31	
2-(2-methyl-4-chlorophenoxy)pa	mg/kg	<0.367	1.22	01/30/24 14:31	
2,4,5-T	mg/kg	<0.00852	0.0284	01/30/24 14:31	
2,4,5-TP (Silvex)	mg/kg	<0.0107	0.0357	01/30/24 14:31	
2,4-DCAA (S)	%	83.2	22.0-132	01/30/24 14:31	

LABORATORY CONTROL SAMPLE: R4028381-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-D	mg/kg	0.167	0.205	123	40.0-120	E,L0,P9
Dalapon	mg/kg	0.167	0.165	98.8	15.0-120	
2,4-DB	mg/kg	0.167	0.164	98.2	25.0-143	
Dicamba	mg/kg	0.167	0.159	95.2	43.0-120	
Dichlorprop	mg/kg	0.167	0.150	89.8	32.0-129	
Dinoseb	mg/kg	0.167	0.0887	53.1	10.0-120	
MCPA	mg/kg	16.7	17.7	106	31.0-121	E
2-(2-methyl-4-chlorophenoxy)pa	mg/kg	16.7	14.8	88.6	28.0-133	
2,4,5-T	mg/kg	0.167	0.180	108	41.0-120	E
2,4,5-TP (Silvex)	mg/kg	0.167	0.168	101	42.0-120	E
2,4-DCAA (S)	%			101	22.0-132	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4028381-3 R4028381-4

Parameter	Units	L1698474-04 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4-D	mg/kg	ND	0.175	0.175	0.176	0.0846	101	48.2	10.0-160	70.4	24	E,R1
Dalapon	mg/kg	ND	0.175	0.175	0.149	0.0853	84.8	48.6	10.0-121	54.3	27	R1
2,4-DB	mg/kg	ND	0.175	0.175	0.140	0.0664	80.0	37.9	10.0-160	71.5	22	R1
Dicamba	mg/kg	ND	0.175	0.175	0.140	0.0735	80.0	41.9	10.0-154	62.6	21	R1
Dichlorprop	mg/kg	ND	0.175	0.175	0.128	0.0580	72.7	33.1	10.0-158	74.9	20	R1
Dinoseb	mg/kg	ND	0.175	0.175	0.0867	0.0422	49.5	24.1	10.0-120	69.1	40	R1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4028381-3 R4028381-4

Parameter	Units	L1698474-04 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
MCPA	mg/kg	ND	17.5	17.5	14.8	6.85	84.2	39.0	10.0-160	73.4	40	R1
2-(2-methyl-4-chlorophenoxy)pa	mg/kg	ND	17.5	17.5	12.3	6.20	70.3	35.3	10.0-160	66.2	40	R1
2,4,5-T	mg/kg	ND	0.175	0.175	0.132	0.0639	75.2	36.4	10.0-157	69.4	20	R1
2,4,5-TP (Silvex)	mg/kg	ND	0.175	0.175	0.137	0.0584	78.2	33.3	10.0-156	80.6	20	R1
2,4-DCAA (S)	%						80.6	35.4	22.0-132			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

QC Batch: 2212842
QC Batch Method: 8151A
Analysis Method: EPA 8151A
Analysis Description: Chlorinated Herb. (GC) 8151A
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

METHOD BLANK: R4028827-1 Matrix: Solid
Associated Lab Samples: 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4-D	mg/kg	<0.00702	0.0234	02/01/24 01:58	
Dalapon	mg/kg	<0.0113	0.0377	02/01/24 01:58	
2,4-DB	mg/kg	<0.0297	0.0990	02/01/24 01:58	
Dicamba	mg/kg	<0.0157	0.0523	02/01/24 01:58	
Dichlorprop	mg/kg	<0.0245	0.0817	02/01/24 01:58	
Dinoseb	mg/kg	<0.00697	0.0232	02/01/24 01:58	
MCPA	mg/kg	<0.443	1.48	02/01/24 01:58	
2-(2-methyl-4-chlorophenoxy)pa	mg/kg	<0.367	1.22	02/01/24 01:58	
2,4,5-T	mg/kg	<0.00852	0.0284	02/01/24 01:58	
2,4,5-TP (Silvex)	mg/kg	<0.0107	0.0357	02/01/24 01:58	
2,4-DCAA (S)	%	64.7	22.0-132	02/01/24 01:58	

LABORATORY CONTROL SAMPLE: R4028827-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-D	mg/kg	0.167	0.126	75.4	40.0-120	
Dalapon	mg/kg	0.167	0.110	65.9	15.0-120	
2,4-DB	mg/kg	0.167	0.122	73.1	25.0-143	
Dicamba	mg/kg	0.167	0.123	73.7	43.0-120	
Dichlorprop	mg/kg	0.167	0.141	84.4	32.0-129	
Dinoseb	mg/kg	0.167	0.0377	22.6	10.0-120	
MCPA	mg/kg	16.7	14.6	87.4	31.0-121	
2-(2-methyl-4-chlorophenoxy)pa	mg/kg	16.7	11.6	69.5	28.0-133	
2,4,5-T	mg/kg	0.167	0.138	82.6	41.0-120	
2,4,5-TP (Silvex)	mg/kg	0.167	0.127	76.0	42.0-120	
2,4-DCAA (S)	%			68.3	22.0-132	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4028827-3 R4028827-4

Parameter	Units	40273365010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4-D	mg/kg	ND	0.206	0.204	0.156	0.134	75.4	65.5	10.0-160	15.4	24	
Dalapon	mg/kg	ND	0.206	0.204	0.187	0.173	90.4	84.8	10.0-121	7.56	27	
2,4-DB	mg/kg	ND	0.206	0.204	0.148	0.129	71.9	63.0	10.0-160	14.3	22	
Dicamba	mg/kg	ND	0.206	0.204	0.150	0.134	72.5	65.5	10.0-154	11.4	21	
Dichlorprop	mg/kg	ND	0.206	0.204	0.167	0.145	80.8	70.9	10.0-158	14.3	20	
Dinoseb	mg/kg	ND	0.206	0.204	0.0605	0.0600	29.3	29.4	10.0-120	0.821	40	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R4028827-3 R4028827-4

Parameter	Units	40273365010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
MCPA	mg/kg	ND	20.6	20.4	17.2	15.2	83.2	74.5	10.0-160	12.2	40	
2-(2-methyl-4-chlorophenoxy)pa	mg/kg	ND	20.6	20.4	14.0	12.3	67.7	60.1	10.0-160	13.1	40	
2,4,5-T	mg/kg	ND	0.206	0.204	0.148	0.131	71.9	64.2	10.0-157	12.4	20	
2,4,5-TP (Silvex)	mg/kg	ND	0.206	0.204	0.143	0.123	69.5	60.4	10.0-156	15.2	20	
2,4-DCAA (S)	%						68.3	59.4	22.0-132			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

QC Batch: 466048
QC Batch Method: EPA 7471
Analysis Method: EPA 7471
Analysis Description: 7471 Mercury
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

METHOD BLANK: 2671869 Matrix: Solid
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.010	0.035	02/01/24 12:33	

LABORATORY CONTROL SAMPLE: 2671870

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.83	0.81	97	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2671871 2671872

Parameter	Units	40273365010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	<0.012	1	1	1.1	1.1	107	109	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

QC Batch: 465443
QC Batch Method: EPA 3050B
Analysis Method: EPA 6010D
Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

METHOD BLANK: 2668258 Matrix: Solid
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.5	2.5	01/23/24 15:33	
Barium	mg/kg	<0.15	0.50	01/23/24 15:33	
Cadmium	mg/kg	<0.13	0.50	01/23/24 15:33	
Chromium	mg/kg	<0.28	1.0	01/23/24 15:33	
Lead	mg/kg	<0.60	2.0	01/23/24 15:33	
Selenium	mg/kg	<1.3	4.0	01/23/24 15:33	
Silver	mg/kg	<0.31	1.0	01/23/24 15:33	

LABORATORY CONTROL SAMPLE: 2668259

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	25	24.2	97	80-120	
Barium	mg/kg	25	25.7	103	80-120	
Cadmium	mg/kg	25	26.0	104	80-120	
Chromium	mg/kg	25	25.4	102	80-120	
Lead	mg/kg	25	26.1	104	80-120	
Selenium	mg/kg	25	25.7	103	80-120	
Silver	mg/kg	12.5	11.7	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2668260 2668261

Parameter	Units	40273365010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	5.2	31.3	31.4	34.7	34.3	94	93	75-125	1	20	
Barium	mg/kg	90.4	31.3	31.4	168	159	248	220	75-125	5	20	M0
Cadmium	mg/kg	<0.17	31.3	31.4	30.9	31.2	99	99	75-125	1	20	
Chromium	mg/kg	23.3	31.3	31.4	62.4	60.1	125	117	75-125	4	20	
Lead	mg/kg	8.1	31.3	31.4	40.1	39.9	102	102	75-125	0	20	
Selenium	mg/kg	<1.6	31.3	31.4	31.8	31.7	100	99	75-125	0	20	
Silver	mg/kg	<0.39	15.6	15.6	14.1	14.1	90	90	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

QC Batch: 465464
QC Batch Method: EPA 5035/5030B
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Med Level Normal List
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010, 40273365011

METHOD BLANK: 2668336 Matrix: Solid
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010, 40273365011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<12.0	50.0	01/23/24 11:08	
1,1,1-Trichloroethane	ug/kg	<12.8	50.0	01/23/24 11:08	
1,1,2,2-Tetrachloroethane	ug/kg	<18.1	50.0	01/23/24 11:08	
1,1,2-Trichloroethane	ug/kg	<18.2	50.0	01/23/24 11:08	
1,1-Dichloroethane	ug/kg	<12.8	50.0	01/23/24 11:08	
1,1-Dichloroethene	ug/kg	<16.6	50.0	01/23/24 11:08	
1,1-Dichloropropene	ug/kg	<16.2	50.0	01/23/24 11:08	
1,2,3-Trichlorobenzene	ug/kg	<55.7	250	01/23/24 11:08	
1,2,3-Trichloropropane	ug/kg	<24.3	50.0	01/23/24 11:08	
1,2,4-Trichlorobenzene	ug/kg	<41.2	250	01/23/24 11:08	
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	01/23/24 11:08	
1,2-Dibromo-3-chloropropane	ug/kg	<38.8	250	01/23/24 11:08	
1,2-Dibromoethane (EDB)	ug/kg	<13.7	50.0	01/23/24 11:08	
1,2-Dichlorobenzene	ug/kg	<15.5	50.0	01/23/24 11:08	
1,2-Dichloroethane	ug/kg	<11.5	50.0	01/23/24 11:08	
1,2-Dichloropropane	ug/kg	<11.9	50.0	01/23/24 11:08	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	01/23/24 11:08	
1,3-Dichlorobenzene	ug/kg	<13.7	50.0	01/23/24 11:08	
1,3-Dichloropropane	ug/kg	<10.9	50.0	01/23/24 11:08	
1,4-Dichlorobenzene	ug/kg	<13.7	50.0	01/23/24 11:08	
2,2-Dichloropropane	ug/kg	<13.5	50.0	01/23/24 11:08	
2-Chlorotoluene	ug/kg	<16.2	50.0	01/23/24 11:08	
4-Chlorotoluene	ug/kg	<19.0	50.0	01/23/24 11:08	
Benzene	ug/kg	<11.9	20.0	01/23/24 11:08	
Bromobenzene	ug/kg	<19.5	50.0	01/23/24 11:08	
Bromochloromethane	ug/kg	<13.7	50.0	01/23/24 11:08	
Bromodichloromethane	ug/kg	<11.9	50.0	01/23/24 11:08	
Bromoform	ug/kg	<220	250	01/23/24 11:08	
Bromomethane	ug/kg	<70.1	250	01/23/24 11:08	
Carbon tetrachloride	ug/kg	<11.0	50.0	01/23/24 11:08	
Chlorobenzene	ug/kg	<6.0	50.0	01/23/24 11:08	
Chloroethane	ug/kg	<21.1	250	01/23/24 11:08	
Chloroform	ug/kg	<35.8	250	01/23/24 11:08	
Chloromethane	ug/kg	<19.0	50.0	01/23/24 11:08	
cis-1,2-Dichloroethene	ug/kg	<10.7	50.0	01/23/24 11:08	
cis-1,3-Dichloropropene	ug/kg	<33.0	250	01/23/24 11:08	
Dibromochloromethane	ug/kg	<171	250	01/23/24 11:08	
Dibromomethane	ug/kg	<14.8	50.0	01/23/24 11:08	
Dichlorodifluoromethane	ug/kg	<21.5	50.0	01/23/24 11:08	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

METHOD BLANK: 2668336 Matrix: Solid

Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010, 40273365011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	<12.4	50.0	01/23/24 11:08	
Ethylbenzene	ug/kg	<11.9	50.0	01/23/24 11:08	
Hexachloro-1,3-butadiene	ug/kg	<99.4	250	01/23/24 11:08	
Isopropylbenzene (Cumene)	ug/kg	<13.5	50.0	01/23/24 11:08	
m&p-Xylene	ug/kg	<21.1	100	01/23/24 11:08	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	01/23/24 11:08	
Methylene Chloride	ug/kg	<13.9	50.0	01/23/24 11:08	
n-Butylbenzene	ug/kg	<22.9	50.0	01/23/24 11:08	
n-Propylbenzene	ug/kg	<12.0	50.0	01/23/24 11:08	
Naphthalene	ug/kg	<21.0	250	01/23/24 11:08	
o-Xylene	ug/kg	<15.0	50.0	01/23/24 11:08	
p-Isopropyltoluene	ug/kg	<17.0	50.0	01/23/24 11:08	
sec-Butylbenzene	ug/kg	<17.2	50.0	01/23/24 11:08	
Styrene	ug/kg	<12.8	50.0	01/23/24 11:08	
tert-Butylbenzene	ug/kg	<15.7	50.0	01/23/24 11:08	
Tetrachloroethene	ug/kg	<19.4	50.0	01/23/24 11:08	
Toluene	ug/kg	<12.6	50.0	01/23/24 11:08	
trans-1,2-Dichloroethene	ug/kg	<10.9	50.0	01/23/24 11:08	
trans-1,3-Dichloropropene	ug/kg	<143	250	01/23/24 11:08	
Trichloroethene	ug/kg	<18.7	50.0	01/23/24 11:08	
Trichlorofluoromethane	ug/kg	<14.5	50.0	01/23/24 11:08	
Vinyl chloride	ug/kg	<10.1	50.0	01/23/24 11:08	
1,2-Dichlorobenzene-d4 (S)	%	106	67-144	01/23/24 11:08	
4-Bromofluorobenzene (S)	%	100	72-142	01/23/24 11:08	
Toluene-d8 (S)	%	105	70-139	01/23/24 11:08	

LABORATORY CONTROL SAMPLE: 2668337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2290	91	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2420	97	70-130	
1,1,2-Trichloroethane	ug/kg	2500	2370	95	70-130	
1,1-Dichloroethane	ug/kg	2500	2780	111	70-130	
1,1-Dichloroethene	ug/kg	2500	2300	92	77-122	
1,2,4-Trichlorobenzene	ug/kg	2500	2310	92	66-125	
1,2-Dibromo-3-chloropropane	ug/kg	2500	1940	77	66-130	
1,2-Dibromoethane (EDB)	ug/kg	2500	2330	93	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2600	104	70-130	
1,2-Dichloroethane	ug/kg	2500	2570	103	70-130	
1,2-Dichloropropane	ug/kg	2500	2620	105	80-121	
1,3-Dichlorobenzene	ug/kg	2500	2590	104	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2520	101	70-130	
Benzene	ug/kg	2500	2530	101	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

LABORATORY CONTROL SAMPLE: 2668337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromodichloromethane	ug/kg	2500	2460	98	70-130	
Bromoform	ug/kg	2500	1810	72	67-130	
Bromomethane	ug/kg	2500	2530	101	25-150	
Carbon tetrachloride	ug/kg	2500	2060	83	72-136	
Chlorobenzene	ug/kg	2500	2610	104	70-130	
Chloroethane	ug/kg	2500	2270	91	20-178	
Chloroform	ug/kg	2500	2560	102	80-120	
Chloromethane	ug/kg	2500	2180	87	45-123	
cis-1,2-Dichloroethene	ug/kg	2500	2360	94	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2360	94	70-130	
Dibromochloromethane	ug/kg	2500	2040	82	70-130	
Dichlorodifluoromethane	ug/kg	2500	1620	65	14-106	
Ethylbenzene	ug/kg	2500	2480	99	80-120	
Isopropylbenzene (Cumene)	ug/kg	2500	2470	99	70-130	
m&p-Xylene	ug/kg	5000	5020	100	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2510	100	70-130	
Methylene Chloride	ug/kg	2500	2620	105	70-130	
o-Xylene	ug/kg	2500	2600	104	70-130	
Styrene	ug/kg	2500	2690	108	70-130	
Tetrachloroethene	ug/kg	2500	2460	99	70-130	
Toluene	ug/kg	2500	2500	100	80-120	
trans-1,2-Dichloroethene	ug/kg	2500	2390	96	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2200	88	70-130	
Trichloroethene	ug/kg	2500	2560	103	70-130	
Trichlorofluoromethane	ug/kg	2500	2190	88	49-141	
Vinyl chloride	ug/kg	2500	2040	81	59-120	
1,2-Dichlorobenzene-d4 (S)	%			111	67-144	
4-Bromofluorobenzene (S)	%			107	72-142	
Toluene-d8 (S)	%			107	70-139	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2668339 2668340

Parameter	Units	40273365010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/kg	<19.5	1270	1260	1480	1280	116	102	56-130	14	20	
1,1,2,2-Tetrachloroethane	ug/kg	<27.6	1270	1260	1500	1400	118	111	70-133	7	20	
1,1,2-Trichloroethane	ug/kg	<27.7	1270	1260	1390	1360	109	108	70-130	3	20	
1,1-Dichloroethane	ug/kg	<19.5	1270	1260	1590	1680	124	133	70-130	6	20	M1
1,1-Dichloroethene	ug/kg	<25.3	1270	1260	1500	1370	118	109	52-122	9	20	
1,2,4-Trichlorobenzene	ug/kg	<62.7	1270	1260	1590	1510	124	120	66-136	5	20	
1,2-Dibromo-3-chloropropane	ug/kg	<59.1	1270	1260	1140	1300	89	103	59-131	13	23	
1,2-Dibromoethane (EDB)	ug/kg	<20.9	1270	1260	1390	1330	109	106	70-130	4	20	
1,2-Dichlorobenzene	ug/kg	<23.6	1270	1260	1680	1680	131	133	70-130	0	20	M1
1,2-Dichloroethane	ug/kg	<17.5	1270	1260	1550	1480	122	118	70-130	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2668339 2668340

Parameter	Units	40273365010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloropropane	ug/kg	<18.1	1270	1260	1600	1560	125	124	77-121	2	20	M1
1,3-Dichlorobenzene	ug/kg	<20.9	1270	1260	1670	1610	131	127	70-130	4	20	M1
1,4-Dichlorobenzene	ug/kg	<20.9	1270	1260	1630	1560	128	124	70-130	5	20	
Benzene	ug/kg	<18.1	1270	1260	1570	1480	123	118	70-130	5	20	
Bromodichloromethane	ug/kg	<18.1	1270	1260	1500	1450	117	115	70-130	3	20	
Bromoform	ug/kg	<335	1270	1260	1030	1040	81	83	67-130	1	20	
Bromomethane	ug/kg	<107	1270	1260	1570	1410	123	112	25-150	10	20	
Carbon tetrachloride	ug/kg	<16.7	1270	1260	1240	1140	97	90	48-136	9	20	
Chlorobenzene	ug/kg	<9.1	1270	1260	1650	1600	129	127	70-130	3	20	
Chloroethane	ug/kg	<32.1	1270	1260	1490	1460	117	116	20-178	2	23	
Chloroform	ug/kg	<54.5	1270	1260	1610	1520	126	120	80-120	6	20	M1
Chloromethane	ug/kg	<28.9	1270	1260	1380	1220	108	97	23-132	12	20	
cis-1,2-Dichloroethene	ug/kg	<16.3	1270	1260	1480	1530	116	121	70-130	3	20	
cis-1,3-Dichloropropene	ug/kg	<50.2	1270	1260	1420	1390	111	110	70-130	2	20	
Dibromochloromethane	ug/kg	<260	1270	1260	1160	1200	91	95	70-130	3	20	
Dichlorodifluoromethane	ug/kg	<32.7	1270	1260	946	751	74	60	10-106	23	34	
Ethylbenzene	ug/kg	<18.1	1270	1260	1580	1510	124	119	80-120	5	20	M1
Isopropylbenzene (Cumene)	ug/kg	<20.6	1270	1260	1580	1550	124	123	70-130	2	20	
m&p-Xylene	ug/kg	<32.1	2550	2520	3300	3090	129	123	70-130	6	20	
Methyl-tert-butyl ether	ug/kg	<22.4	1270	1260	1500	1440	117	114	67-130	4	20	
Methylene Chloride	ug/kg	<21.2	1270	1260	1660	1560	130	124	70-130	6	20	
o-Xylene	ug/kg	<22.8	1270	1260	1620	1560	127	124	70-130	4	20	
Styrene	ug/kg	<19.5	1270	1260	1680	1640	132	130	70-130	2	20	M1
Tetrachloroethene	ug/kg	<29.5	1270	1260	1540	1480	121	117	70-130	4	20	
Toluene	ug/kg	<19.2	1270	1260	1550	1510	122	120	80-120	3	20	M1
trans-1,2-Dichloroethene	ug/kg	<16.6	1270	1260	1550	1470	121	116	70-130	5	20	
trans-1,3-Dichloropropene	ug/kg	<218	1270	1260	1330	1310	104	104	70-130	2	20	
Trichloroethene	ug/kg	<28.5	1270	1260	1560	1540	122	122	70-130	1	20	
Trichlorofluoromethane	ug/kg	<22.1	1270	1260	1330	1170	104	93	21-141	13	28	
Vinyl chloride	ug/kg	<15.4	1270	1260	1220	1130	96	89	29-120	8	20	
1,2-Dichlorobenzene-d4 (S)	%						122	124	67-144			
4-Bromofluorobenzene (S)	%						120	119	72-142			
Toluene-d8 (S)	%						122	115	70-139			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

QC Batch: 465480
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

METHOD BLANK: 2668440 Matrix: Solid
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<15.2	50.0	01/23/24 16:34	
PCB-1221 (Aroclor 1221)	ug/kg	<15.2	50.0	01/23/24 16:34	
PCB-1232 (Aroclor 1232)	ug/kg	<15.2	50.0	01/23/24 16:34	
PCB-1242 (Aroclor 1242)	ug/kg	<15.2	50.0	01/23/24 16:34	
PCB-1248 (Aroclor 1248)	ug/kg	<15.2	50.0	01/23/24 16:34	
PCB-1254 (Aroclor 1254)	ug/kg	<15.2	50.0	01/23/24 16:34	
PCB-1260 (Aroclor 1260)	ug/kg	<15.2	50.0	01/23/24 16:34	
Decachlorobiphenyl (S)	%	100	34-120	01/23/24 16:34	
Tetrachloro-m-xylene (S)	%	89	44-120	01/23/24 16:34	

LABORATORY CONTROL SAMPLE: 2668441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<15.2			
PCB-1221 (Aroclor 1221)	ug/kg		<15.2			
PCB-1232 (Aroclor 1232)	ug/kg		<15.2			
PCB-1242 (Aroclor 1242)	ug/kg		<15.2			
PCB-1248 (Aroclor 1248)	ug/kg		<15.2			
PCB-1254 (Aroclor 1254)	ug/kg		<15.2			
PCB-1260 (Aroclor 1260)	ug/kg	500	532	106	69-120	
Decachlorobiphenyl (S)	%			97	34-120	
Tetrachloro-m-xylene (S)	%			92	44-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2668442 2668443

Parameter	Units	40273365010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<19.2			<19.1	<19.2					20	
PCB-1221 (Aroclor 1221)	ug/kg	<19.2			<19.1	<19.2					20	
PCB-1232 (Aroclor 1232)	ug/kg	<19.2			<19.1	<19.2					20	
PCB-1242 (Aroclor 1242)	ug/kg	<19.2			<19.1	<19.2					20	
PCB-1248 (Aroclor 1248)	ug/kg	<19.2			<19.1	<19.2					20	
PCB-1254 (Aroclor 1254)	ug/kg	<19.2			<19.1	<19.2					20	
PCB-1260 (Aroclor 1260)	ug/kg	<19.2	628	631	638	644	102	102	51-120	1	20	
Decachlorobiphenyl (S)	%						93	95	34-120			
Tetrachloro-m-xylene (S)	%						86	86	44-120			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

QC Batch: 465685
QC Batch Method: EPA 3546
Analysis Method: EPA 8270E by SIM
Analysis Description: 8270E/3546 MSSV PAH by SIM
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

METHOD BLANK: 2669728 Matrix: Solid
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.4	16.7	01/26/24 10:30	
2-Methylnaphthalene	ug/kg	<2.4	16.7	01/26/24 10:30	
Acenaphthene	ug/kg	<2.2	16.7	01/26/24 10:30	
Acenaphthylene	ug/kg	<2.1	16.7	01/26/24 10:30	
Anthracene	ug/kg	<2.1	16.7	01/26/24 10:30	
Benzo(a)anthracene	ug/kg	<2.2	16.7	01/26/24 10:30	
Benzo(a)pyrene	ug/kg	<1.9	16.7	01/26/24 10:30	
Benzo(b)fluoranthene	ug/kg	<2.3	16.7	01/26/24 10:30	
Benzo(g,h,i)perylene	ug/kg	<2.9	16.7	01/26/24 10:30	
Benzo(k)fluoranthene	ug/kg	<2.1	16.7	01/26/24 10:30	
Chrysene	ug/kg	<3.1	16.7	01/26/24 10:30	
Dibenz(a,h)anthracene	ug/kg	<2.3	16.7	01/26/24 10:30	
Fluoranthene	ug/kg	<2.0	16.7	01/26/24 10:30	
Fluorene	ug/kg	<2.0	16.7	01/26/24 10:30	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.5	16.7	01/26/24 10:30	
Naphthalene	ug/kg	<1.6	16.7	01/26/24 10:30	
Phenanthrene	ug/kg	<1.9	16.7	01/26/24 10:30	
Pyrene	ug/kg	<2.5	16.7	01/26/24 10:30	
2-Fluorobiphenyl (S)	%	65	39-120	01/26/24 10:30	
Terphenyl-d14 (S)	%	77	36-120	01/26/24 10:30	

LABORATORY CONTROL SAMPLE: 2669729

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	230	69	62-120	
2-Methylnaphthalene	ug/kg	333	223	67	61-120	
Acenaphthene	ug/kg	333	245	73	66-120	
Acenaphthylene	ug/kg	333	241	72	63-120	
Anthracene	ug/kg	333	260	78	72-120	
Benzo(a)anthracene	ug/kg	333	238	71	64-120	
Benzo(a)pyrene	ug/kg	333	274	82	76-120	
Benzo(b)fluoranthene	ug/kg	333	272	82	62-120	
Benzo(g,h,i)perylene	ug/kg	333	323	97	73-120	
Benzo(k)fluoranthene	ug/kg	333	251	75	69-120	
Chrysene	ug/kg	333	255	76	70-120	
Dibenz(a,h)anthracene	ug/kg	333	306	92	72-120	
Fluoranthene	ug/kg	333	260	78	71-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

LABORATORY CONTROL SAMPLE: 2669729

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluorene	ug/kg	333	245	74	68-120	
Indeno(1,2,3-cd)pyrene	ug/kg	333	286	86	72-120	
Naphthalene	ug/kg	333	224	67	60-120	
Phenanthrene	ug/kg	333	244	73	66-120	
Pyrene	ug/kg	333	253	76	65-120	
2-Fluorobiphenyl (S)	%			69	39-120	
Terphenyl-d14 (S)	%			80	36-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2669730 2669731

Parameter	Units	40273365010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	<3.1	421	421	261	257	62	61	50-120	1	34	
2-Methylnaphthalene	ug/kg	<3.1	421	421	254	244	60	58	48-120	4	29	
Acenaphthene	ug/kg	<2.7	421	421	284	282	67	67	51-120	1	26	
Acenaphthylene	ug/kg	<2.7	421	421	279	277	66	66	49-120	1	22	
Anthracene	ug/kg	<2.6	421	421	293	309	70	73	52-120	5	25	
Benzo(a)anthracene	ug/kg	<2.7	421	421	271	283	64	67	47-120	4	37	
Benzo(a)pyrene	ug/kg	<2.4	421	421	302	317	72	75	53-120	5	33	
Benzo(b)fluoranthene	ug/kg	<2.9	421	421	305	318	72	76	43-120	4	43	
Benzo(g,h,i)perylene	ug/kg	<3.7	421	421	358	376	85	89	38-120	5	36	
Benzo(k)fluoranthene	ug/kg	<2.7	421	421	280	296	66	70	49-120	6	30	
Chrysene	ug/kg	<4.0	421	421	298	318	71	76	45-120	7	28	
Dibenz(a,h)anthracene	ug/kg	<2.9	421	421	341	357	81	85	41-120	5	33	
Fluoranthene	ug/kg	<2.5	421	421	290	308	69	73	50-120	6	43	
Fluorene	ug/kg	<2.5	421	421	283	289	67	69	47-120	2	27	
Indeno(1,2,3-cd)pyrene	ug/kg	<4.4	421	421	324	341	77	81	35-120	5	33	
Naphthalene	ug/kg	<2.0	421	421	257	238	61	56	42-120	8	26	
Phenanthrene	ug/kg	<2.4	421	421	276	286	65	68	45-120	3	24	
Pyrene	ug/kg	<3.1	421	421	282	296	67	70	42-120	5	41	
2-Fluorobiphenyl (S)	%						58	53	39-120			
Terphenyl-d14 (S)	%						63	65	36-120			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

QC Batch: 465438
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

SAMPLE DUPLICATE: 2668247

Parameter	Units	40273336001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	18.0	17.0	5	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 3160240026 USGS
Pace Project No.: 40273365

QC Batch: 2214406
QC Batch Method: SM 2540 G
Analysis Method: SM 2540G
Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

METHOD BLANK: R4027118-1 Matrix: Solid
Associated Lab Samples: 40273365001, 40273365002, 40273365003, 40273365004, 40273365005, 40273365006, 40273365007, 40273365008, 40273365009, 40273365010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Solids	%	ND		01/27/24 11:04	

LABORATORY CONTROL SAMPLE: R4027118-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.0	100	90.0-110	

SAMPLE DUPLICATE: R4027118-3

Parameter	Units	40273365010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	80.9	81.2	0.358	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALIFIERS

Project: 3160240026 USGS
Pace Project No.: 40273365

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 LOD.

J - The reported result is an estimated value.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

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 - Analyte was not detected and is reported as less than the LOD or as defined by the customer.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
P9	RPD between the primary and confirmatory analysis exceeded 40%.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 3160240026 USGS
Pace Project No.: 40273365

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40273365001	**SB-01-02-03**	3546/3665A	2214803	EPA 8081B	2214803
40273365002	**SB-02-05-06**	3546/3665A	2214803	EPA 8081B	2214803
40273365003	**SB-03-05-06**	3546/3665A	2214803	EPA 8081B	2214803
40273365004	**SB-04-05-06**	3546/3665A	2214803	EPA 8081B	2214803
40273365005	**SB-05-02-03**	3546/3665A	2214803	EPA 8081B	2214803
40273365006	**SB-06-02-03**	3546/3665A	2214803	EPA 8081B	2214803
40273365007	**SB-07-07-01-02**	3546/3665A	2214803	EPA 8081B	2214803
40273365008	**SB-08-01-02**	3546/3665A	2214803	EPA 8081B	2214803
40273365009	**SB-09-07-08**	3546/3665A	2214803	EPA 8081B	2214803
40273365010	**SB-10-05-06**	3546/3665A	2214803	EPA 8081B	2214803
40273365001	**SB-01-02-03**	8151A	2211880	EPA 8151A	2211880
40273365002	**SB-02-05-06**	8151A	2211880	EPA 8151A	2211880
40273365003	**SB-03-05-06**	8151A	2211880	EPA 8151A	2211880
40273365004	**SB-04-05-06**	8151A	2211880	EPA 8151A	2211880
40273365005	**SB-05-02-03**	8151A	2212842	EPA 8151A	2212842
40273365006	**SB-06-02-03**	8151A	2212842	EPA 8151A	2212842
40273365007	**SB-07-07-01-02**	8151A	2212842	EPA 8151A	2212842
40273365008	**SB-08-01-02**	8151A	2212842	EPA 8151A	2212842
40273365009	**SB-09-07-08**	8151A	2212842	EPA 8151A	2212842
40273365010	**SB-10-05-06**	8151A	2212842	EPA 8151A	2212842
40273365001	**SB-01-02-03**	EPA 3541	465480	EPA 8082A	465482
40273365002	**SB-02-05-06**	EPA 3541	465480	EPA 8082A	465482
40273365003	**SB-03-05-06**	EPA 3541	465480	EPA 8082A	465482
40273365004	**SB-04-05-06**	EPA 3541	465480	EPA 8082A	465482
40273365005	**SB-05-02-03**	EPA 3541	465480	EPA 8082A	465482
40273365006	**SB-06-02-03**	EPA 3541	465480	EPA 8082A	465482
40273365007	**SB-07-07-01-02**	EPA 3541	465480	EPA 8082A	465482
40273365008	**SB-08-01-02**	EPA 3541	465480	EPA 8082A	465482
40273365009	**SB-09-07-08**	EPA 3541	465480	EPA 8082A	465482
40273365010	**SB-10-05-06**	EPA 3541	465480	EPA 8082A	465482
40273365001	**SB-01-02-03**	EPA 3050B	465443	EPA 6010D	465493
40273365002	**SB-02-05-06**	EPA 3050B	465443	EPA 6010D	465493
40273365003	**SB-03-05-06**	EPA 3050B	465443	EPA 6010D	465493
40273365004	**SB-04-05-06**	EPA 3050B	465443	EPA 6010D	465493
40273365005	**SB-05-02-03**	EPA 3050B	465443	EPA 6010D	465493
40273365006	**SB-06-02-03**	EPA 3050B	465443	EPA 6010D	465493
40273365007	**SB-07-07-01-02**	EPA 3050B	465443	EPA 6010D	465493
40273365008	**SB-08-01-02**	EPA 3050B	465443	EPA 6010D	465493
40273365009	**SB-09-07-08**	EPA 3050B	465443	EPA 6010D	465493
40273365010	**SB-10-05-06**	EPA 3050B	465443	EPA 6010D	465493
40273365001	**SB-01-02-03**	EPA 7471	466048	EPA 7471	466158
40273365002	**SB-02-05-06**	EPA 7471	466048	EPA 7471	466158
40273365003	**SB-03-05-06**	EPA 7471	466048	EPA 7471	466158
40273365004	**SB-04-05-06**	EPA 7471	466048	EPA 7471	466158
40273365005	**SB-05-02-03**	EPA 7471	466048	EPA 7471	466158
40273365006	**SB-06-02-03**	EPA 7471	466048	EPA 7471	466158

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 3160240026 USGS
Pace Project No.: 40273365

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40273365007	**SB-07-07-01-02**	EPA 7471	466048	EPA 7471	466158
40273365008	**SB-08-01-02**	EPA 7471	466048	EPA 7471	466158
40273365009	**SB-09-07-08**	EPA 7471	466048	EPA 7471	466158
40273365010	**SB-10-05-06**	EPA 7471	466048	EPA 7471	466158
40273365001	**SB-01-02-03**	EPA 3546	465685	EPA 8270E by SIM	465723
40273365002	**SB-02-05-06**	EPA 3546	465685	EPA 8270E by SIM	465723
40273365003	**SB-03-05-06**	EPA 3546	465685	EPA 8270E by SIM	465723
40273365004	**SB-04-05-06**	EPA 3546	465685	EPA 8270E by SIM	465723
40273365005	**SB-05-02-03**	EPA 3546	465685	EPA 8270E by SIM	465723
40273365006	**SB-06-02-03**	EPA 3546	465685	EPA 8270E by SIM	465723
40273365007	**SB-07-07-01-02**	EPA 3546	465685	EPA 8270E by SIM	465723
40273365008	**SB-08-01-02**	EPA 3546	465685	EPA 8270E by SIM	465723
40273365009	**SB-09-07-08**	EPA 3546	465685	EPA 8270E by SIM	465723
40273365010	**SB-10-05-06**	EPA 3546	465685	EPA 8270E by SIM	465723
40273365001	**SB-01-02-03**	EPA 5035/5030B	465464	EPA 8260	465467
40273365002	**SB-02-05-06**	EPA 5035/5030B	465464	EPA 8260	465467
40273365003	**SB-03-05-06**	EPA 5035/5030B	465464	EPA 8260	465467
40273365004	**SB-04-05-06**	EPA 5035/5030B	465464	EPA 8260	465467
40273365005	**SB-05-02-03**	EPA 5035/5030B	465464	EPA 8260	465467
40273365006	**SB-06-02-03**	EPA 5035/5030B	465464	EPA 8260	465467
40273365007	**SB-07-07-01-02**	EPA 5035/5030B	465464	EPA 8260	465467
40273365008	**SB-08-01-02**	EPA 5035/5030B	465464	EPA 8260	465467
40273365009	**SB-09-07-08**	EPA 5035/5030B	465464	EPA 8260	465467
40273365010	**SB-10-05-06**	EPA 5035/5030B	465464	EPA 8260	465467
40273365011	**MEOH BLANK**	EPA 5035/5030B	465464	EPA 8260	465467
40273365001	**SB-01-02-03**	ASTM D2974-87	465438		
40273365002	**SB-02-05-06**	ASTM D2974-87	465438		
40273365003	**SB-03-05-06**	ASTM D2974-87	465438		
40273365004	**SB-04-05-06**	ASTM D2974-87	465438		
40273365005	**SB-05-02-03**	ASTM D2974-87	465438		
40273365006	**SB-06-02-03**	ASTM D2974-87	465438		
40273365007	**SB-07-07-01-02**	ASTM D2974-87	465438		
40273365008	**SB-08-01-02**	ASTM D2974-87	465438		
40273365009	**SB-09-07-08**	ASTM D2974-87	465438		
40273365010	**SB-10-05-06**	ASTM D2974-87	465438		
40273365001	**SB-01-02-03**	SM 2540 G	2214406	SM 2540G	2214406
40273365002	**SB-02-05-06**	SM 2540 G	2214406	SM 2540G	2214406
40273365003	**SB-03-05-06**	SM 2540 G	2214406	SM 2540G	2214406
40273365004	**SB-04-05-06**	SM 2540 G	2214406	SM 2540G	2214406
40273365005	**SB-05-02-03**	SM 2540 G	2214406	SM 2540G	2214406
40273365006	**SB-06-02-03**	SM 2540 G	2214406	SM 2540G	2214406
40273365007	**SB-07-07-01-02**	SM 2540 G	2214406	SM 2540G	2214406
40273365008	**SB-08-01-02**	SM 2540 G	2214406	SM 2540G	2214406
40273365009	**SB-09-07-08**	SM 2540 G	2214406	SM 2540G	2214406
40273365010	**SB-10-05-06**	SM 2540 G	2214406	SM 2540G	2214406

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

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

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here: 40273365

ALL SHADED AREAS are for LAB USE ONLY

Company: WSP	Billing Information: 16 N Carroll St, Suite 700 Madison, WI 53703
Address: 16 N Carroll St, Suite 700, Madison, WI 53703	
Report To: Karina.Casey@WSP.com	Email To: Karina Casey
Copy To: Jeffrey.Steiner@wsp.com	Site Collection Info/Address: 6006 Schroeder Rd, Madison, WI 53711
Customer Project Name/Number: 3160240026	State: WI County/City: Madison Time Zone Collected: [ ] PT [ ] MT [X] CT [ ] ET
Phone: 920-222-1308 Email:	Site/Facility ID #: USGS Madison, WI
Collected By (print): Annalie Peterson	Purchase Order #: Quote #: 00148613
Collected By (signature):	Turnaround Date Required: Standard
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)
Compliance Monitoring? [ ] Yes [X] No	DW PWS ID #: DW Location Code: N/A
Immediately Packed on Ice: [X] Yes [ ] No	Field Filtered (if applicable): [ ] Yes [X] No Analysis:

Container Preservative Type **: | Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Analyses: PCBs, Metals, PAHs, + Moisture	Herbicides + Pesticides	VOC 8260	Lab Profile/Line: Lab Sample # / Comments:
SB-01-02-03	SL	G	1-17-24	1010	—	—	—	4	1	1	2	001
SB-02-05-06	SL	G	1-17-24	1040	—	—	—	4	1	1	2	002
SB-03-05-06	SL	G	1-17-24	1120	—	—	—	4	1	1	2	003
SB-04-05-06	SL	G	1-17-24	1145	—	—	—	4	1	1	2	004
SB-05-02-03	SL	G	1-17-24	1200	—	—	—	4	1	1	2	005
SB-06-02-03	SL	G	1-17-24	1240	—	—	—	4	1	1	2	006
SB-07-07-01-02	SL	G	1-17-24	1250	—	—	—	4	1	1	2	007
SB-08-01-02	SL	G	1-17-24	1305	—	—	—	4	1	1	2	008
SB-09-07-08	SL	G	1-17-24	1315	—	—	—	4	1	1	2	009
SB-10-05-06	SL	G	1-17-24	1345	—	—	—	4	1	1	2	010

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY: Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2883252

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
- Temp Blank Received: Y N NA
- Therm ID#:
- Cooler 1 Temp Upon Receipt: oC
- Cooler 1 Therm Corr. Factor: oC
- Cooler 1 Corrected Temp: oC
- Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Karina Casey (WSP)	1-18-24 @ 1430		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Fedex	1/22/24 1520	Pace	1/22/24 1520
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

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

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here: 40273365

ALL SHADED AREAS are for LAB USE ONLY

Company: WSP	Billing Information: 16 N Carroll St, Suite 700 Madison, WI 53703
Address: 16 N Carroll St., Suite 700, Madison, WI 53703	
Report To: Karina.Casey@wsp.com	Email To: Karina Casey
Copy To: Jeffrey.Stetner@wsp.com	Site Collection Info/Address: 6006 Schroeder Rd, Madison, WI 53711
Customer Project Name/Number: 31602400026	State: WI / County/City: Madison / Time Zone Collected: [ ] PT [ ] MT [X] CT [ ] ET
Phone: 920-222-1508 Email:	Site/Facility ID #: USGS-Madison, WI / Compliance Monitoring? [ ] Yes [X] No
Collected By (print): Annalie Peterson	Purchase Order #: Quote #: 00148613 / DW PWS ID #: DW Location Code: N/A
Collected By (signature):	Turnaround Date Required: Standard / Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [ ] Yes [X] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	PCBs, Metals, PAHs, + Moisture	Herbicides + Pesticides	VOC 8260	Lab Sample # / Comments
SB-10-05-06-MS	SL	G	1-17-24	1345	—	—	—	4	1	1	2	~~011~~ 010
SB-10-05-06-MSD	SL	G	1-17-24	1345	—	—	—	4	1	1	2	1/22/24 ~~012~~ 010
MeOH Blank ②	—		—	—							1	NK ~~013~~ 011

Container Preservative Type **

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:

Customer Remarks / Special Conditions / Possible Hazards: ② MeOH Blank received, lab added to COC 1/22/24 NK

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2883253

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:

Temp Blank Received: Y N NA

Therm ID#:

Cooler 1 Temp Upon Receipt: ____ oC

Cooler 1 Therm Corr. Factor: ____ oC

Cooler 1 Corrected Temp: ____ oC

Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Karina Casey (WSP)	1-18-24 @ 1430		
Fedex	1/22/24 1520	PACE	1/22/24 1520

MTJL LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Trip Blank Received: Y N NA

HCL MeOH TSP Other

Non Conformance(s): YES / NO

Client Name: WSP

Sample Preservation Receipt Form

Project # 40273365

All containers needing preservation have been checked and noted below ☐Yes ☐No ☒N/A

Lab Lot# of pH paper

Lab Std #ID of preservation (if pH adjusted).

Pace Lab #	Glass							Plastic						Vials						Jars				General				VOA Vials (>6mm) *	Initial when completed			Date/ Time		Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN 1	GN 2		H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	
001																		2		2															2.5 / 5
002																		2		2															2.5 / 5
003																		2		2															2.5 / 5
004																		2		2															2.5 / 5
005																		2		2															2.5 / 5
006																		2		2															2.5 / 5
007																		2		2															2.5 / 5
008																		2		2															2.5 / 5
009																		2		2															2.5 / 5
010																		6		6															2.5 / 5
011																		1																	2.5 / 5
012																																			2.5 / 5
013																																			2.5 / 5
014																																			2.5 / 5
015																																			2.5 / 5
016																																			2.5 / 5
017																																			2.5 / 5
018					1/22/24 NK																														2.5 / 5
019																																			2.5 / 5
020																																			2.5 / 5

Exceptions to preservation check (VOA), Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other

Headspace in VOA Vials (>6mm) . ☐Yes ☐No ☒N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4
BP2Z	500 mL plastic NaOH + Zn

VG9C	40 mL clear ascorbic w/ HCl
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN 1	
GN 2	

Page 1 of 2

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO# : 40273365

40273365

Client Name: WSP

Courier: ☐ CS Logistics ☒ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☐ Client ☐ Pace Other:

Tracking #: 789449973153

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used SR - 134 **Type of Ice:** (Wet) Blue Dry None ☐ Meltwater Only

Cooler Temperature Uncorr: 1.5 /Corr: 1.5

Temp Blank Present: ☒ yes ☐ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Person examining contents:
Date: 1/22/24 /Initials: NK

Labeled By Initials: AG

Chain of Custody Present:	☒Yes ☐No ☐N/A	1. + CC 1/22/24 NK
Chain of Custody Filled Out:	☐Yes ☒No ☐N/A	2. pg.#, 1/22/24 NK
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No	5.
- DI VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No	6.
Rush Turn Around Time Requested:	☐Yes ☒No	7.
Sufficient Volume: For Analysis: ☒Yes ☐No MS/MSD: ☒Yes ☐No ☐N/A		8.
Correct Containers Used:	☒Yes ☐No	9.
Correct Type: ~~Pace Green Bay~~, Pace IR, Non-Pace		
Containers Intact:	☒Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: S	☒Yes ☐No ☐N/A	12.
Trip Blank Present:	☒Yes ☐No ☐N/A	13. MeOH Blank received, lab added to COC 1/22/24 NK
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 1230		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2