

Schmenk, Colin R -DNR

From: Jacobs, Makayla <Makayla.Jacobs@us.fincantieri.com>
Sent: Monday, May 3, 2021 12:36 PM
To: Neste, David E - DNR
Cc: Carow, Tom; Munoz, Antonio
Subject: Soil sampling Results
Attachments: 40224520_frc.pdf; 40224473_frc.pdf; 40224475_frc.pdf; Soil Areas.pdf; 40223669_frc.pdf; 40224474_frc.pdf

**Please Read Disclaimer(s) at the end of this email

Dave,

I hope all is well,
Attached are soil sample results, along with a map of where we took the samples.



Makayla Jacobs
Environmental Engineering Specialist
FINCANTIERI MARINETTE MARINE
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Marinette, Wisconsin 54143
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FINCANTIERI company

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March 24, 2021

Makayla Jacobs
Fincantieri Marinette Marine
1600 Ely Street
Marinette, WI 54143

RE: Project: RCRA TCLP TESTING
Pace Project No.: 40223669

Dear Makayla Jacobs:

Enclosed are the analytical results for sample(s) received by the laboratory on March 19, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Green Bay

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

Sincerely,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: RCRA TCLP TESTING

Pace Project No.: 40223669

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

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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SAMPLE SUMMARY

Project: RCRA TCLP TESTING

Pace Project No.: 40223669

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40223669001	SOIL/SOLID	Solid	03/18/21 09:40	03/19/21 10:35

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SAMPLE ANALYTE COUNT

Project: RCRA TCLP TESTING

Pace Project No.: 40223669

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40223669001	SOIL/SOLID	EPA 6010	TXW	7
		EPA 7470	AJT	1

PASI-G = Pace Analytical Services - Green Bay

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SUMMARY OF DETECTION

Project: RCRA TCLP TESTING

Pace Project No.: 40223669

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40223669001	SOIL/SOLID					
EPA 6010	Arsenic	0.054	mg/L	0.025	03/24/21 09:04	
EPA 6010	Barium	0.68	mg/L	0.0050	03/24/21 09:04	
EPA 6010	Lead	0.0086J	mg/L	0.020	03/24/21 09:04	

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ANALYTICAL RESULTS

Project: RCRA TCLP TESTING
Pace Project No.: 40223669

Sample: SOIL/SOLID **Lab ID: 40223669001** Collected: 03/18/21 09:40 Received: 03/19/21 10:35 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, TCLP									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1311; 03/22/21 13:22									
Pace Analytical Services - Green Bay									
Arsenic	0.054	mg/L	0.025	0.0084	1	03/23/21 10:13	03/24/21 09:04	7440-38-2	
Barium	0.68	mg/L	0.0050	0.0015	1	03/23/21 10:13	03/24/21 09:04	7440-39-3	
Cadmium	<0.0013	mg/L	0.0050	0.0013	1	03/23/21 10:13	03/24/21 09:04	7440-43-9	
Chromium	<0.0025	mg/L	0.010	0.0025	1	03/23/21 10:13	03/24/21 09:04	7440-47-3	
Lead	0.0086J	mg/L	0.020	0.0059	1	03/23/21 10:13	03/24/21 09:04	7439-92-1	
Selenium	<0.012	mg/L	0.040	0.012	1	03/23/21 10:13	03/24/21 09:04	7782-49-2	
Silver	<0.0032	mg/L	0.010	0.0032	1	03/23/21 10:13	03/24/21 09:04	7440-22-4	
7470 Mercury, TCLP									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Leachate Method/Date: EPA 1311; 03/22/21 13:22									
Pace Analytical Services - Green Bay									
Mercury	<0.066	ug/L	0.20	0.066	1	03/23/21 10:10	03/24/21 08:13	7439-97-6	

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QUALITY CONTROL DATA

Project: RCRA TCLP TESTING
Pace Project No.: 40223669

QC Batch: 380447 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury TCLP
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40223669001

METHOD BLANK: 2194106 Matrix: Water
Associated Lab Samples: 40223669001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.066	0.20	03/24/21 07:43	

METHOD BLANK: 2193675 Matrix: Water
Associated Lab Samples: 40223669001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.066	0.20	03/24/21 07:57	

METHOD BLANK: 2193676 Matrix: Water
Associated Lab Samples: 40223669001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.066	0.20	03/24/21 08:15	

METHOD BLANK: 2193677 Matrix: Water
Associated Lab Samples: 40223669001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.066	0.20	03/24/21 08:27	

LABORATORY CONTROL SAMPLE: 2194107

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	4.9	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2194108 2194109

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result								
Mercury	ug/L	5	<0.000066 mg/L	5	5	4.9	5.0	99	100	85-115	1	20	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RCRA TCLP TESTING

Pace Project No.: 40223669

MATRIX SPIKE SAMPLE:		2194110					
Parameter	Units	40223546001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	<0.066	5	5.2	104	85-115	

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

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QUALITY CONTROL DATA

Project: RCRA TCLP TESTING
Pace Project No.: 40223669

QC Batch: 380452 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40223669001

METHOD BLANK: 2194112 Matrix: Water
Associated Lab Samples: 40223669001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0084	0.025	03/24/21 08:59	
Barium	mg/L	<0.0015	0.0050	03/24/21 08:59	
Cadmium	mg/L	<0.0013	0.0050	03/24/21 08:59	
Chromium	mg/L	<0.0025	0.010	03/24/21 08:59	
Lead	mg/L	<0.0059	0.020	03/24/21 08:59	
Selenium	mg/L	<0.012	0.040	03/24/21 08:59	
Silver	mg/L	<0.0032	0.010	03/24/21 08:59	

METHOD BLANK: 2193667 Matrix: Solid
Associated Lab Samples: 40223669001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0084	0.025	03/24/21 09:45	
Barium	mg/L	<0.0015	0.0050	03/24/21 09:45	
Cadmium	mg/L	<0.0013	0.0050	03/24/21 09:45	
Chromium	mg/L	<0.0025	0.010	03/24/21 09:45	
Lead	mg/L	<0.0059	0.020	03/24/21 09:45	
Selenium	mg/L	<0.012	0.040	03/24/21 09:45	
Silver	mg/L	<0.0032	0.010	03/24/21 09:45	

LABORATORY CONTROL SAMPLE: 2194113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.5	0.49	98	80-120	
Barium	mg/L	0.5	0.50	100	80-120	
Cadmium	mg/L	0.5	0.49	99	80-120	
Chromium	mg/L	0.5	0.52	104	80-120	
Lead	mg/L	0.5	0.50	101	80-120	
Selenium	mg/L	0.5	0.52	103	80-120	
Silver	mg/L	0.25	0.25	99	80-120	

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

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QUALITY CONTROL DATA

Project: RCRA TCLP TESTING

Pace Project No.: 40223669

Parameter	Units	2194114		2194115		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40223669001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Arsenic	mg/L	0.054	0.5	0.5	0.57	0.56	104	101	75-125	2	20	
Barium	mg/L	0.68	0.5	0.5	1.2	1.2	104	98	75-125	3	20	
Cadmium	mg/L	<0.0013	0.5	0.5	0.52	0.51	103	103	75-125	1	20	
Chromium	mg/L	<0.0025	0.5	0.5	0.50	0.50	100	99	75-125	1	20	
Lead	mg/L	0.0086J	0.5	0.5	0.49	0.49	97	96	75-125	2	20	
Selenium	mg/L	<0.012	0.5	0.5	0.53	0.53	106	106	75-125	1	20	
Silver	mg/L	<0.0032	0.25	0.25	0.27	0.27	107	107	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: RCRA TCLP TESTING

Pace Project No.: 40223669

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 - Estimated concentration at or above the LOD and below the LOQ.

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.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RCRA TCLP TESTING
Pace Project No.: 40223669

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40223669001	SOIL/SOLID	EPA 3010	380452	EPA 6010	380540
40223669001	SOIL/SOLID	EPA 7470	380447	EPA 7470	380514

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

40223609

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	Page: _____ of _____
Company: Fincantieri Marinette Marine	Report To:	Attention:	REGULATORY AGENCY
Address: 1600 Ely Street Marintette, WI 54143	Copy To:	Company Name: Fincantieri Marinette Marine	
Email To: makayla.jacobs@us.fincantieri.com	Purchase Order No.:	Address: 1600 Ely Street	<input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER
Phone: 7157359341x6834 Fax:	Project Name:	Pace Quote Reference:	<input type="checkbox"/> UST <input checked="" type="checkbox"/> RCRA <input type="checkbox"/> OTHER _____
Requested Due Date/TAT: standard 3-23-21	Project Number:	Pace Project Manager:	Site Location
		Pace Profile #:	STATE: WI

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / .-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test ↓ RCRA 8(CLLP)	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 801			
					COMPOSITE START		COMPOSITE END/GRAB				Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other									
					DATE	TIME	DATE	TIME																			
1	Soil / solid				3/18	9:40			1	x																	
2																											
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Makayla Jacobs / FMM	3/18/21	10:20							
	UPS	3/19/21	1035	Susan K. Wyle / Pace	3/19/21	1035	SPD 3/19/21 ROD etc	N	N	Y

SAMPLER NAME AND SIGNATURE			Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Makayla Jacobs						
SIGNATURE of SAMPLER: <i>Makayla Jacobs</i>		DATE Signed (MM/DD/YY): 3/18/21				

Client Name: Fincantieri

Sample Preservation Receipt Form

Project # 40223669

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):

Initial when completed:


Date/Time:

Pace Lab #	Glass							Plastic					Vials					Jars				General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)	
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T								ZPLC
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
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017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

3/19/21 SKU

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	BP1U 1 liter plastic unpres	VG9A 40 mL clear ascorbic	JGFU 4 oz amber jar unpres
BG1U 1 liter clear glass	BP3U 250 mL plastic unpres	DG9T 40 mL amber Na Thio	JG9U 9 oz amber jar unpres
AG1H 1 liter amber glass HCL	BP3B 250 mL plastic NaOH	VG9U 40 mL clear vial unpres	WGFU 4 oz clear jar unpres
AG4S 125 mL amber glass H2SO4	BP3N 250 mL plastic HNO3	VG9H 40 mL clear vial HCL	WPFU 4 oz plastic jar unpres
AG4U 120 mL amber glass unpres	BP3S 250 mL plastic H2SO4	VG9M 40 mL clear vial MeOH	SP5T 120 mL plastic Na Thiosulfate
AG5U 100 mL amber glass unpres		VG9D 40 mL clear vial DI	ZPLC ziploc bag
AG2S 500 mL amber glass H2SO4			GN
BG3U 250 mL clear glass unpres			

 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
	Document No.: ENV-FRM-GBAY-0014-Rev.00	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Fincantieri Project #: _____
 Courier: CS Logistics Fed Ex Speedee UPS Walco
 Client Pace Other: _____

WO#: 40223669



Tracking #: 125788990364134303

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 - 109 Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 21 / Corr: 21

Temp Blank Present: yes no Biological Tissue is Frozen: yes no

Person examining contents:
 Date: 3-19-21 / Initials: SKW
 Labeled By Initials: [Signature]

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

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2.	<u>Proj. info; Pg#</u> <u>3-19-21 SKW</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.	
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.	
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.	
Sufficient Volume:		8.	
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.	
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12.	<u>no label on sample</u> <u>3-19-21 SKW</u>
-Includes date/time/ID/Analysis Matrix: <u>S</u>			
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased): _____			

Client Notification/ Resolution: _____
 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 logir

April 15, 2021

Makayla Jacobs
Fincantieri Marinette Marine
1600 Ely Street
Marinette, WI 54143

RE: Project: #2 ABOVE
Pace Project No.: 40224473

Dear Makayla Jacobs:

Enclosed are the analytical results for sample(s) received by the laboratory on April 03, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Green Bay

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

Sincerely,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: #2 ABOVE

Pace Project No.: 40224473

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

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: #2 ABOVE

Pace Project No.: 40224473

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40224473001	#2 ABOVE	Solid	04/01/21 09:30	04/03/21 10:35

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: #2 ABOVE

Pace Project No.: 40224473

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40224473001	#2 ABOVE	EPA 8082	BLM	10
		EPA 6010	TXW	7
		EPA 7471	AJT	1
		EPA 8270E by SIM	JJB	20
		EPA 8260	MDS	64
		ASTM D2974-87	AH	1

PASI-G = Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: #2 ABOVE

Pace Project No.: 40224473

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40224473001	#2 ABOVE					
EPA 8082	PCB-1242 (Aroclor 1242)	107	ug/kg	60.2	04/10/21 15:37	
EPA 8082	PCB-1254 (Aroclor 1254)	42.5J	ug/kg	60.2	04/10/21 15:37	
EPA 8082	PCB, Total	150	ug/kg	60.2	04/10/21 15:37	
EPA 6010	Arsenic	18.5	mg/kg	3.0	04/07/21 11:48	
EPA 6010	Barium	26.8	mg/kg	0.60	04/07/21 11:48	
EPA 6010	Cadmium	0.29J	mg/kg	0.60	04/07/21 11:48	
EPA 6010	Chromium	8.5	mg/kg	1.2	04/07/21 11:48	
EPA 6010	Lead	62.9	mg/kg	2.4	04/07/21 11:48	
EPA 7471	Mercury	0.13	mg/kg	0.038	04/14/21 11:59	
EPA 8270E by SIM	Acenaphthylene	197J	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Anthracene	295J	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Benzo(a)anthracene	1170	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Benzo(a)pyrene	973	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Benzo(b)fluoranthene	1100	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Benzo(g,h,i)perylene	537	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Benzo(k)fluoranthene	636	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Chrysene	1010	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Dibenz(a,h)anthracene	166J	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Fluoranthene	2440	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Indeno(1,2,3-cd)pyrene	498	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Naphthalene	99.6J	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Phenanthrene	355J	ug/kg	404	04/14/21 20:01	
EPA 8270E by SIM	Pyrene	2270	ug/kg	404	04/14/21 20:01	
EPA 8260	Methylene Chloride	52.1J	ug/kg	71.0	04/10/21 00:33	
ASTM D2974-87	Percent Moisture	17.3	%	0.10	04/05/21 14:08	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #2 ABOVE
Pace Project No.: 40224473

Sample: #2 ABOVE **Lab ID: 40224473001** Collected: 04/01/21 09:30 Received: 04/03/21 10:35 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
8082 GCS PCB									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
Pace Analytical Services - Green Bay									
PCB-1016 (Aroclor 1016)	<18.3	ug/kg	60.2	18.3	1	04/06/21 13:31	04/10/21 15:37	12674-11-2	
PCB-1221 (Aroclor 1221)	<18.3	ug/kg	60.2	18.3	1	04/06/21 13:31	04/10/21 15:37	11104-28-2	
PCB-1232 (Aroclor 1232)	<18.3	ug/kg	60.2	18.3	1	04/06/21 13:31	04/10/21 15:37	11141-16-5	
PCB-1242 (Aroclor 1242)	107	ug/kg	60.2	18.3	1	04/06/21 13:31	04/10/21 15:37	53469-21-9	
PCB-1248 (Aroclor 1248)	<18.3	ug/kg	60.2	18.3	1	04/06/21 13:31	04/10/21 15:37	12672-29-6	
PCB-1254 (Aroclor 1254)	42.5J	ug/kg	60.2	18.3	1	04/06/21 13:31	04/10/21 15:37	11097-69-1	
PCB-1260 (Aroclor 1260)	<18.3	ug/kg	60.2	18.3	1	04/06/21 13:31	04/10/21 15:37	11096-82-5	
PCB, Total	150	ug/kg	60.2	18.3	1	04/06/21 13:31	04/10/21 15:37	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	68	%	67-102		1	04/06/21 13:31	04/10/21 15:37	877-09-8	
Decachlorobiphenyl (S)	38	%	47-114		1	04/06/21 13:31	04/10/21 15:37	2051-24-3	S0
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Pace Analytical Services - Green Bay									
Arsenic	18.5	mg/kg	3.0	1.8	1	04/06/21 07:42	04/07/21 11:48	7440-38-2	
Barium	26.8	mg/kg	0.60	0.18	1	04/06/21 07:42	04/07/21 11:48	7440-39-3	
Cadmium	0.29J	mg/kg	0.60	0.16	1	04/06/21 07:42	04/07/21 11:48	7440-43-9	
Chromium	8.5	mg/kg	1.2	0.34	1	04/06/21 07:42	04/07/21 11:48	7440-47-3	
Lead	62.9	mg/kg	2.4	0.72	1	04/06/21 07:42	04/07/21 11:48	7439-92-1	
Selenium	<1.6	mg/kg	4.8	1.6	1	04/06/21 07:42	04/07/21 11:48	7782-49-2	
Silver	<0.37	mg/kg	1.2	0.37	1	04/06/21 07:42	04/07/21 11:48	7440-22-4	
7471 Mercury									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Pace Analytical Services - Green Bay									
Mercury	0.13	mg/kg	0.038	0.011	1	04/14/21 07:31	04/14/21 11:59	7439-97-6	
8270E MSSV PAH by SIM									
Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546									
Pace Analytical Services - Green Bay									
Acenaphthene	<52.4	ug/kg	404	52.4	20	04/13/21 09:46	04/14/21 20:01	83-32-9	
Acenaphthylene	197J	ug/kg	404	50.9	20	04/13/21 09:46	04/14/21 20:01	208-96-8	
Anthracene	295J	ug/kg	404	50.1	20	04/13/21 09:46	04/14/21 20:01	120-12-7	
Benzo(a)anthracene	1170	ug/kg	404	52.2	20	04/13/21 09:46	04/14/21 20:01	56-55-3	
Benzo(a)pyrene	973	ug/kg	404	45.9	20	04/13/21 09:46	04/14/21 20:01	50-32-8	
Benzo(b)fluoranthene	1100	ug/kg	404	56.0	20	04/13/21 09:46	04/14/21 20:01	205-99-2	
Benzo(g,h,i)perylene	537	ug/kg	404	70.8	20	04/13/21 09:46	04/14/21 20:01	191-24-2	
Benzo(k)fluoranthene	636	ug/kg	404	51.6	20	04/13/21 09:46	04/14/21 20:01	207-08-9	
Chrysene	1010	ug/kg	404	76.1	20	04/13/21 09:46	04/14/21 20:01	218-01-9	
Dibenz(a,h)anthracene	166J	ug/kg	404	55.9	20	04/13/21 09:46	04/14/21 20:01	53-70-3	
Fluoranthene	2440	ug/kg	404	47.8	20	04/13/21 09:46	04/14/21 20:01	206-44-0	
Fluorene	<48.4	ug/kg	404	48.4	20	04/13/21 09:46	04/14/21 20:01	86-73-7	
Indeno(1,2,3-cd)pyrene	498	ug/kg	404	84.1	20	04/13/21 09:46	04/14/21 20:01	193-39-5	
1-Methylnaphthalene	<59.0	ug/kg	404	59.0	20	04/13/21 09:46	04/14/21 20:01	90-12-0	
2-Methylnaphthalene	<59.0	ug/kg	404	59.0	20	04/13/21 09:46	04/14/21 20:01	91-57-6	
Naphthalene	99.6J	ug/kg	404	39.3	20	04/13/21 09:46	04/14/21 20:01	91-20-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #2 ABOVE
Pace Project No.: 40224473

Sample: #2 ABOVE **Lab ID: 40224473001** Collected: 04/01/21 09:30 Received: 04/03/21 10:35 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	355J	ug/kg	404	46.2	20	04/13/21 09:46	04/14/21 20:01	85-01-8	
Pyrene	2270	ug/kg	404	59.3	20	04/13/21 09:46	04/14/21 20:01	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	0	%	36-86		20	04/13/21 09:46	04/14/21 20:01	321-60-8	S4
Terphenyl-d14 (S)	0	%	41-97		20	04/13/21 09:46	04/14/21 20:01	1718-51-0	S4
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	<17.0	ug/kg	71.0	17.0	1	04/09/21 10:15	04/10/21 00:33	630-20-6	
1,1,1-Trichloroethane	<18.2	ug/kg	71.0	18.2	1	04/09/21 10:15	04/10/21 00:33	71-55-6	
1,1,2,2-Tetrachloroethane	<25.7	ug/kg	71.0	25.7	1	04/09/21 10:15	04/10/21 00:33	79-34-5	
1,1,2-Trichloroethane	<25.8	ug/kg	71.0	25.8	1	04/09/21 10:15	04/10/21 00:33	79-00-5	
1,1-Dichloroethane	<18.2	ug/kg	71.0	18.2	1	04/09/21 10:15	04/10/21 00:33	75-34-3	
1,1-Dichloroethene	<23.6	ug/kg	71.0	23.6	1	04/09/21 10:15	04/10/21 00:33	75-35-4	
1,1-Dichloropropene	<23.0	ug/kg	71.0	23.0	1	04/09/21 10:15	04/10/21 00:33	563-58-6	
1,2,3-Trichlorobenzene	<79.1	ug/kg	355	79.1	1	04/09/21 10:15	04/10/21 00:33	87-61-6	
1,2,3-Trichloropropane	<34.5	ug/kg	71.0	34.5	1	04/09/21 10:15	04/10/21 00:33	96-18-4	
1,2,4-Trichlorobenzene	<58.5	ug/kg	355	58.5	1	04/09/21 10:15	04/10/21 00:33	120-82-1	
1,2,4-Trimethylbenzene	<21.2	ug/kg	71.0	21.2	1	04/09/21 10:15	04/10/21 00:33	95-63-6	
1,2-Dibromo-3-chloropropane	<55.1	ug/kg	355	55.1	1	04/09/21 10:15	04/10/21 00:33	96-12-8	
1,2-Dibromoethane (EDB)	<19.4	ug/kg	71.0	19.4	1	04/09/21 10:15	04/10/21 00:33	106-93-4	
1,2-Dichlorobenzene	<22.0	ug/kg	71.0	22.0	1	04/09/21 10:15	04/10/21 00:33	95-50-1	
1,2-Dichloroethane	<16.3	ug/kg	71.0	16.3	1	04/09/21 10:15	04/10/21 00:33	107-06-2	
1,2-Dichloropropane	<16.9	ug/kg	71.0	16.9	1	04/09/21 10:15	04/10/21 00:33	78-87-5	
1,3,5-Trimethylbenzene	<22.9	ug/kg	71.0	22.9	1	04/09/21 10:15	04/10/21 00:33	108-67-8	
1,3-Dichlorobenzene	<19.4	ug/kg	71.0	19.4	1	04/09/21 10:15	04/10/21 00:33	541-73-1	
1,3-Dichloropropane	<15.5	ug/kg	71.0	15.5	1	04/09/21 10:15	04/10/21 00:33	142-28-9	
1,4-Dichlorobenzene	<19.4	ug/kg	71.0	19.4	1	04/09/21 10:15	04/10/21 00:33	106-46-7	
2,2-Dichloropropane	<19.2	ug/kg	71.0	19.2	1	04/09/21 10:15	04/10/21 00:33	594-20-7	
2-Chlorotoluene	<23.0	ug/kg	71.0	23.0	1	04/09/21 10:15	04/10/21 00:33	95-49-8	
4-Chlorotoluene	<27.0	ug/kg	71.0	27.0	1	04/09/21 10:15	04/10/21 00:33	106-43-4	
Benzene	<16.9	ug/kg	28.4	16.9	1	04/09/21 10:15	04/10/21 00:33	71-43-2	
Bromobenzene	<27.7	ug/kg	71.0	27.7	1	04/09/21 10:15	04/10/21 00:33	108-86-1	
Bromochloromethane	<19.4	ug/kg	71.0	19.4	1	04/09/21 10:15	04/10/21 00:33	74-97-5	
Bromodichloromethane	<16.9	ug/kg	71.0	16.9	1	04/09/21 10:15	04/10/21 00:33	75-27-4	
Bromoform	<312	ug/kg	355	312	1	04/09/21 10:15	04/10/21 00:33	75-25-2	
Bromomethane	<99.5	ug/kg	355	99.5	1	04/09/21 10:15	04/10/21 00:33	74-83-9	
Carbon tetrachloride	<15.6	ug/kg	71.0	15.6	1	04/09/21 10:15	04/10/21 00:33	56-23-5	
Chlorobenzene	<8.5	ug/kg	71.0	8.5	1	04/09/21 10:15	04/10/21 00:33	108-90-7	
Chloroethane	<30.0	ug/kg	355	30.0	1	04/09/21 10:15	04/10/21 00:33	75-00-3	
Chloroform	<50.8	ug/kg	355	50.8	1	04/09/21 10:15	04/10/21 00:33	67-66-3	
Chloromethane	<27.0	ug/kg	71.0	27.0	1	04/09/21 10:15	04/10/21 00:33	74-87-3	
Dibromochloromethane	<243	ug/kg	355	243	1	04/09/21 10:15	04/10/21 00:33	124-48-1	
Dibromomethane	<21.0	ug/kg	71.0	21.0	1	04/09/21 10:15	04/10/21 00:33	74-95-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #2 ABOVE
Pace Project No.: 40224473

Sample: #2 ABOVE **Lab ID: 40224473001** Collected: 04/01/21 09:30 Received: 04/03/21 10:35 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	<30.5	ug/kg	71.0	30.5	1	04/09/21 10:15	04/10/21 00:33	75-71-8	
Diisopropyl ether	<17.6	ug/kg	71.0	17.6	1	04/09/21 10:15	04/10/21 00:33	108-20-3	
Ethylbenzene	<16.9	ug/kg	71.0	16.9	1	04/09/21 10:15	04/10/21 00:33	100-41-4	
Hexachloro-1,3-butadiene	<141	ug/kg	355	141	1	04/09/21 10:15	04/10/21 00:33	87-68-3	
Isopropylbenzene (Cumene)	<19.2	ug/kg	71.0	19.2	1	04/09/21 10:15	04/10/21 00:33	98-82-8	
Methyl-tert-butyl ether	<20.9	ug/kg	71.0	20.9	1	04/09/21 10:15	04/10/21 00:33	1634-04-4	
Methylene Chloride	52.1J	ug/kg	71.0	19.7	1	04/09/21 10:15	04/10/21 00:33	75-09-2	
Naphthalene	<22.1	ug/kg	355	22.1	1	04/09/21 10:15	04/10/21 00:33	91-20-3	
Styrene	<18.2	ug/kg	71.0	18.2	1	04/09/21 10:15	04/10/21 00:33	100-42-5	
Tetrachloroethene	<27.5	ug/kg	71.0	27.5	1	04/09/21 10:15	04/10/21 00:33	127-18-4	
Toluene	<17.9	ug/kg	71.0	17.9	1	04/09/21 10:15	04/10/21 00:33	108-88-3	
Trichloroethene	<26.5	ug/kg	71.0	26.5	1	04/09/21 10:15	04/10/21 00:33	79-01-6	
Trichlorofluoromethane	<20.6	ug/kg	71.0	20.6	1	04/09/21 10:15	04/10/21 00:33	75-69-4	
Vinyl chloride	<14.3	ug/kg	71.0	14.3	1	04/09/21 10:15	04/10/21 00:33	75-01-4	
cis-1,2-Dichloroethene	<15.2	ug/kg	71.0	15.2	1	04/09/21 10:15	04/10/21 00:33	156-59-2	
cis-1,3-Dichloropropene	<46.8	ug/kg	355	46.8	1	04/09/21 10:15	04/10/21 00:33	10061-01-5	
m&p-Xylene	<30.0	ug/kg	142	30.0	1	04/09/21 10:15	04/10/21 00:33	179601-23-1	
n-Butylbenzene	<32.5	ug/kg	71.0	32.5	1	04/09/21 10:15	04/10/21 00:33	104-51-8	
n-Propylbenzene	<17.0	ug/kg	71.0	17.0	1	04/09/21 10:15	04/10/21 00:33	103-65-1	
o-Xylene	<21.3	ug/kg	71.0	21.3	1	04/09/21 10:15	04/10/21 00:33	95-47-6	
p-Isopropyltoluene	<21.6	ug/kg	71.0	21.6	1	04/09/21 10:15	04/10/21 00:33	99-87-6	
sec-Butylbenzene	<17.3	ug/kg	71.0	17.3	1	04/09/21 10:15	04/10/21 00:33	135-98-8	
tert-Butylbenzene	<22.3	ug/kg	71.0	22.3	1	04/09/21 10:15	04/10/21 00:33	98-06-6	
trans-1,2-Dichloroethene	<15.3	ug/kg	71.0	15.3	1	04/09/21 10:15	04/10/21 00:33	156-60-5	
trans-1,3-Dichloropropene	<203	ug/kg	355	203	1	04/09/21 10:15	04/10/21 00:33	10061-02-6	
Surrogates									
Toluene-d8 (S)	126	%	67-159		1	04/09/21 10:15	04/10/21 00:33	2037-26-5	
4-Bromofluorobenzene (S)	125	%	66-153		1	04/09/21 10:15	04/10/21 00:33	460-00-4	
1,2-Dichlorobenzene-d4 (S)	125	%	82-158		1	04/09/21 10:15	04/10/21 00:33	2199-69-1	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	17.3	%	0.10	0.10	1		04/05/21 14:08		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: #2 ABOVE
Pace Project No.: 40224473

QC Batch: 382313	Analysis Method: EPA 7471
QC Batch Method: EPA 7471	Analysis Description: 7471 Mercury
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224473001

METHOD BLANK: 2205177 Matrix: Solid

Associated Lab Samples: 40224473001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.010	0.035	04/14/21 11:22	

LABORATORY CONTROL SAMPLE: 2205178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.83	0.82	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2205179 2205180

Parameter	Units	2205179		2205180		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224520001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/kg	0.32	0.92	0.9	1.3	1.1	107	89	85-115	14	20

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: #2 ABOVE
Pace Project No.: 40224473

QC Batch: 381497 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224473001

METHOD BLANK: 2200434 Matrix: Solid
Associated Lab Samples: 40224473001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.5	2.5	04/07/21 11:43	
Barium	mg/kg	<0.15	0.50	04/07/21 11:43	
Cadmium	mg/kg	<0.13	0.50	04/07/21 11:43	
Chromium	mg/kg	<0.28	1.0	04/07/21 11:43	
Lead	mg/kg	<0.60	2.0	04/07/21 11:43	
Selenium	mg/kg	<1.3	4.0	04/07/21 11:43	
Silver	mg/kg	<0.31	1.0	04/07/21 11:43	

LABORATORY CONTROL SAMPLE: 2200435

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	50.8	102	80-120	
Barium	mg/kg	50	49.6	99	80-120	
Cadmium	mg/kg	50	50.0	100	80-120	
Chromium	mg/kg	50	51.9	104	80-120	
Lead	mg/kg	50	51.0	102	80-120	
Selenium	mg/kg	50	51.3	103	80-120	
Silver	mg/kg	25	23.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2200436 2200437

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224473001 Result	Spike Conc.	Spike Conc.	Result						
Arsenic	mg/kg	18.5	60	60.2	77.7	77.6	99	98	75-125	0	20
Barium	mg/kg	26.8	60	60.2	88.1	87.6	102	101	75-125	1	20
Cadmium	mg/kg	0.29J	60	60.2	59.2	59.1	98	98	75-125	0	20
Chromium	mg/kg	8.5	60	60.2	68.4	69.6	100	101	75-125	2	20
Lead	mg/kg	62.9	60	60.2	119	116	94	89	75-125	3	20
Selenium	mg/kg	<1.6	60	60.2	60.5	61.4	101	102	75-125	1	20
Silver	mg/kg	<0.37	30	30.1	28.2	28.3	93	94	75-125	0	20

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QUALITY CONTROL DATA

Project: #2 ABOVE
Pace Project No.: 40224473

QC Batch: 382037 Analysis Method: EPA 8260
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224473001

METHOD BLANK: 2203495 Matrix: Solid
Associated Lab Samples: 40224473001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<12.0	50.0	04/09/21 16:29	
1,1,1-Trichloroethane	ug/kg	<12.8	50.0	04/09/21 16:29	
1,1,2,2-Tetrachloroethane	ug/kg	<18.1	50.0	04/09/21 16:29	
1,1,2-Trichloroethane	ug/kg	<18.2	50.0	04/09/21 16:29	
1,1-Dichloroethane	ug/kg	<12.8	50.0	04/09/21 16:29	
1,1-Dichloroethene	ug/kg	<16.6	50.0	04/09/21 16:29	
1,1-Dichloropropene	ug/kg	<16.2	50.0	04/09/21 16:29	
1,2,3-Trichlorobenzene	ug/kg	<55.7	250	04/09/21 16:29	
1,2,3-Trichloropropane	ug/kg	<24.3	50.0	04/09/21 16:29	
1,2,4-Trichlorobenzene	ug/kg	<41.2	250	04/09/21 16:29	
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	04/09/21 16:29	
1,2-Dibromo-3-chloropropane	ug/kg	<38.8	250	04/09/21 16:29	
1,2-Dibromoethane (EDB)	ug/kg	<13.7	50.0	04/09/21 16:29	
1,2-Dichlorobenzene	ug/kg	<15.5	50.0	04/09/21 16:29	
1,2-Dichloroethane	ug/kg	<11.5	50.0	04/09/21 16:29	
1,2-Dichloropropane	ug/kg	<11.9	50.0	04/09/21 16:29	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	04/09/21 16:29	
1,3-Dichlorobenzene	ug/kg	<13.7	50.0	04/09/21 16:29	
1,3-Dichloropropane	ug/kg	<10.9	50.0	04/09/21 16:29	
1,4-Dichlorobenzene	ug/kg	<13.7	50.0	04/09/21 16:29	
2,2-Dichloropropane	ug/kg	<13.5	50.0	04/09/21 16:29	
2-Chlorotoluene	ug/kg	<16.2	50.0	04/09/21 16:29	
4-Chlorotoluene	ug/kg	<19.0	50.0	04/09/21 16:29	
Benzene	ug/kg	<11.9	20.0	04/09/21 16:29	
Bromobenzene	ug/kg	<19.5	50.0	04/09/21 16:29	
Bromochloromethane	ug/kg	<13.7	50.0	04/09/21 16:29	
Bromodichloromethane	ug/kg	<11.9	50.0	04/09/21 16:29	
Bromoform	ug/kg	<220	250	04/09/21 16:29	
Bromomethane	ug/kg	<70.1	250	04/09/21 16:29	
Carbon tetrachloride	ug/kg	<11.0	50.0	04/09/21 16:29	
Chlorobenzene	ug/kg	<6.0	50.0	04/09/21 16:29	
Chloroethane	ug/kg	<21.1	250	04/09/21 16:29	
Chloroform	ug/kg	<35.8	250	04/09/21 16:29	
Chloromethane	ug/kg	<19.0	50.0	04/09/21 16:29	
cis-1,2-Dichloroethene	ug/kg	<10.7	50.0	04/09/21 16:29	
cis-1,3-Dichloropropene	ug/kg	<33.0	250	04/09/21 16:29	
Dibromochloromethane	ug/kg	<171	250	04/09/21 16:29	
Dibromomethane	ug/kg	<14.8	50.0	04/09/21 16:29	
Dichlorodifluoromethane	ug/kg	<21.5	50.0	04/09/21 16:29	
Diisopropyl ether	ug/kg	<12.4	50.0	04/09/21 16:29	

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QUALITY CONTROL DATA

Project: #2 ABOVE
Pace Project No.: 40224473

METHOD BLANK: 2203495
Associated Lab Samples: 40224473001

Matrix: Solid

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/kg	<11.9	50.0	04/09/21 16:29	
Hexachloro-1,3-butadiene	ug/kg	<99.4	250	04/09/21 16:29	
Isopropylbenzene (Cumene)	ug/kg	<13.5	50.0	04/09/21 16:29	
m&p-Xylene	ug/kg	<21.1	100	04/09/21 16:29	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	04/09/21 16:29	
Methylene Chloride	ug/kg	<13.9	50.0	04/09/21 16:29	
n-Butylbenzene	ug/kg	<22.9	50.0	04/09/21 16:29	
n-Propylbenzene	ug/kg	<12.0	50.0	04/09/21 16:29	
Naphthalene	ug/kg	<15.6	250	04/09/21 16:29	
o-Xylene	ug/kg	<15.0	50.0	04/09/21 16:29	
p-Isopropyltoluene	ug/kg	<15.2	50.0	04/09/21 16:29	
sec-Butylbenzene	ug/kg	<12.2	50.0	04/09/21 16:29	
Styrene	ug/kg	<12.8	50.0	04/09/21 16:29	
tert-Butylbenzene	ug/kg	<15.7	50.0	04/09/21 16:29	
Tetrachloroethene	ug/kg	<19.4	50.0	04/09/21 16:29	
Toluene	ug/kg	<12.6	50.0	04/09/21 16:29	
trans-1,2-Dichloroethene	ug/kg	<10.8	50.0	04/09/21 16:29	
trans-1,3-Dichloropropene	ug/kg	<143	250	04/09/21 16:29	
Trichloroethene	ug/kg	<18.7	50.0	04/09/21 16:29	
Trichlorofluoromethane	ug/kg	<14.5	50.0	04/09/21 16:29	
Vinyl chloride	ug/kg	<10.1	50.0	04/09/21 16:29	
1,2-Dichlorobenzene-d4 (S)	%	89	82-158	04/09/21 16:29	
4-Bromofluorobenzene (S)	%	91	66-153	04/09/21 16:29	
Toluene-d8 (S)	%	95	67-159	04/09/21 16:29	

LABORATORY CONTROL SAMPLE: 2203496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2380	95	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2400	96	65-129	
1,1,2-Trichloroethane	ug/kg	2500	2450	98	70-130	
1,1-Dichloroethane	ug/kg	2500	2480	99	70-130	
1,1-Dichloroethene	ug/kg	2500	1840	73	67-120	
1,2,4-Trichlorobenzene	ug/kg	2500	1800	72	64-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2520	101	57-119	
1,2-Dibromoethane (EDB)	ug/kg	2500	2430	97	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2310	92	70-130	
1,2-Dichloroethane	ug/kg	2500	2500	100	70-130	
1,2-Dichloropropane	ug/kg	2500	2410	96	72-118	
1,3-Dichlorobenzene	ug/kg	2500	2180	87	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2170	87	70-130	
Benzene	ug/kg	2500	2280	91	70-130	
Bromodichloromethane	ug/kg	2500	2370	95	70-130	
Bromoform	ug/kg	2500	2270	91	66-130	

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QUALITY CONTROL DATA

Project: #2 ABOVE
Pace Project No.: 40224473

LABORATORY CONTROL SAMPLE: 2203496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/kg	2500	1270	51	13-153	
Carbon tetrachloride	ug/kg	2500	2330	93	73-134	
Chlorobenzene	ug/kg	2500	2320	93	70-130	
Chloroethane	ug/kg	2500	1730	69	19-170	
Chloroform	ug/kg	2500	2430	97	79-120	
Chloromethane	ug/kg	2500	1860	75	45-117	
cis-1,2-Dichloroethene	ug/kg	2500	2200	88	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2310	92	68-130	
Dibromochloromethane	ug/kg	2500	2180	87	70-130	
Dichlorodifluoromethane	ug/kg	2500	1670	67	15-135	
Ethylbenzene	ug/kg	2500	2280	91	78-120	
Isopropylbenzene (Cumene)	ug/kg	2500	2410	96	70-130	
m&p-Xylene	ug/kg	5000	4490	90	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2390	96	65-130	
Methylene Chloride	ug/kg	2500	2260	90	70-130	
o-Xylene	ug/kg	2500	2290	92	70-130	
Styrene	ug/kg	2500	2460	99	70-130	
Tetrachloroethene	ug/kg	2500	1900	76	70-130	
Toluene	ug/kg	2500	2220	89	76-120	
trans-1,2-Dichloroethene	ug/kg	2500	2310	92	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2460	98	70-130	
Trichloroethene	ug/kg	2500	2270	91	70-130	
Trichlorofluoromethane	ug/kg	2500	1970	79	49-153	
Vinyl chloride	ug/kg	2500	1890	76	58-121	
1,2-Dichlorobenzene-d4 (S)	%			98	82-158	
4-Bromofluorobenzene (S)	%			102	66-153	
Toluene-d8 (S)	%			101	67-159	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2203497 2203498

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224684001 Result	Spike Conc.	Spike Conc.	Result						
1,1,1-Trichloroethane	ug/kg	<13.9			1040	1100			6	20	
1,1,2,2-Tetrachloroethane	ug/kg	<19.6			1060	1100			4	20	
1,1,2-Trichloroethane	ug/kg	<19.7			1190	1140			4	20	
1,1-Dichloroethane	ug/kg	<13.9			1200	1200			0	20	
1,1-Dichloroethene	ug/kg	<18.0			837	968			15	20	
1,2,4-Trichlorobenzene	ug/kg	<44.6			997	971			3	20	
1,2-Dibromo-3-chloropropane	ug/kg	<42.0			1170	1180			1	21	
1,2-Dibromoethane (EDB)	ug/kg	<14.8			1130	1130			0	20	
1,2-Dichlorobenzene	ug/kg	<16.8			1160	1180			2	20	
1,2-Dichloroethane	ug/kg	<12.5			1230	1180			5	20	
1,2-Dichloropropane	ug/kg	<12.9			1160	1120			3	20	
1,3-Dichlorobenzene	ug/kg	<14.8			1130	1140			1	20	

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QUALITY CONTROL DATA

Project: #2 ABOVE
Pace Project No.: 40224473

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2203497		2203498		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224684001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
1,4-Dichlorobenzene	ug/kg	<14.8			1070	1170			9	20	
Benzene	ug/kg	<12.9			1100	1090			1	20	
Bromodichloromethane	ug/kg	<12.9			1070	1080			1	20	
Bromoform	ug/kg	<238			1040	1050			1	20	
Bromomethane	ug/kg	<75.9			701	672			4	20	
Carbon tetrachloride	ug/kg	<11.9			1000	1090			9	20	
Chlorobenzene	ug/kg	<6.5			1130	1130			0	20	
Chloroethane	ug/kg	<22.9			1140	1020			11	20	
Chloroform	ug/kg	<38.8			1160	1160			0	20	
Chloromethane	ug/kg	<20.6			1150	1180			3	20	
cis-1,2-Dichloroethene	ug/kg	<11.6			1060	1040			2	20	
cis-1,3-Dichloropropene	ug/kg	<35.7			1080	1080			0	20	
Dibromochloromethane	ug/kg	<185			978	994			2	20	
Dichlorodifluoromethane	ug/kg	<23.3			1040	1360			26	25 R1	
Ethylbenzene	ug/kg	<12.9			1120	1110			1	20	
Isopropylbenzene (Cumene)	ug/kg	<14.6			1170	1190			2	20	
m&p-Xylene	ug/kg	<22.9			2210	2350			6	20	
Methyl-tert-butyl ether	ug/kg	<15.9			1090	1120			2	20	
Methylene Chloride	ug/kg	24.7J			1150	1140			1	20	
o-Xylene	ug/kg	<16.2			1170	1130			3	20	
Styrene	ug/kg	<13.9			1190	1220			2	20	
Tetrachloroethene	ug/kg	<21.0			896	911			2	20	
Toluene	ug/kg	<13.6			1090	1060			3	20	
trans-1,2-Dichloroethene	ug/kg	<11.7			1100	1110			0	20	
trans-1,3-Dichloropropene	ug/kg	<155			1180	1180			0	20	
Trichloroethene	ug/kg	<20.3			1020	1050			3	20	
Trichlorofluoromethane	ug/kg	<15.7			907	1040			14	21	
Vinyl chloride	ug/kg	<10.9			1010	1080			7	20	
1,2-Dichlorobenzene-d4 (S)	%						94	105	82-158		
4-Bromofluorobenzene (S)	%						104	114	66-153		
Toluene-d8 (S)	%						109	110	67-159		

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QUALITY CONTROL DATA

Project: #2 ABOVE
Pace Project No.: 40224473

QC Batch: 381655 Analysis Method: EPA 8082
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224473001

METHOD BLANK: 2201076 Matrix: Solid
Associated Lab Samples: 40224473001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1221 (Aroclor 1221)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1232 (Aroclor 1232)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1242 (Aroclor 1242)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1248 (Aroclor 1248)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1254 (Aroclor 1254)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1260 (Aroclor 1260)	ug/kg	<15.2	50.0	04/07/21 09:45	
Decachlorobiphenyl (S)	%	79	47-114	04/07/21 09:45	
Tetrachloro-m-xylene (S)	%	82	67-102	04/07/21 09:45	

LABORATORY CONTROL SAMPLE: 2201077

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	405	81	69-115	
Decachlorobiphenyl (S)	%			80	47-114	
Tetrachloro-m-xylene (S)	%			85	67-102	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2201078 2201079

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224365039	Spike Conc.	Spike Conc.	Result						
PCB-1016 (Aroclor 1016)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1221 (Aroclor 1221)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1232 (Aroclor 1232)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1242 (Aroclor 1242)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1248 (Aroclor 1248)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1254 (Aroclor 1254)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20

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QUALITY CONTROL DATA

Project: #2 ABOVE

Pace Project No.: 40224473

Parameter	Units	2201078		2201079		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224365039 Result	MS Spike Conc.	MSD Spike Conc.									
PCB-1260 (Aroclor 1260)	ug/kg	<0.018 mg/kg	581	577	443	439	76	76	45-120	1	20		
Decachlorobiphenyl (S)	%							75	75	47-114			
Tetrachloro-m-xylene (S)	%							80	78	67-102			

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QUALITY CONTROL DATA

Project: #2 ABOVE
Pace Project No.: 40224473

QC Batch: 382236 Analysis Method: EPA 8270E by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270E/3546 MSSV PAH by SIM
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224473001

METHOD BLANK: 2204839 Matrix: Solid
Associated Lab Samples: 40224473001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.4	16.7	04/13/21 12:33	
2-Methylnaphthalene	ug/kg	<2.4	16.7	04/13/21 12:33	
Acenaphthene	ug/kg	<2.2	16.7	04/13/21 12:33	
Acenaphthylene	ug/kg	<2.1	16.7	04/13/21 12:33	
Anthracene	ug/kg	<2.1	16.7	04/13/21 12:33	
Benzo(a)anthracene	ug/kg	<2.2	16.7	04/13/21 12:33	
Benzo(a)pyrene	ug/kg	<1.9	16.7	04/13/21 12:33	
Benzo(b)fluoranthene	ug/kg	<2.3	16.7	04/13/21 12:33	
Benzo(g,h,i)perylene	ug/kg	<2.9	16.7	04/13/21 12:33	
Benzo(k)fluoranthene	ug/kg	<2.1	16.7	04/13/21 12:33	
Chrysene	ug/kg	<3.2	16.7	04/13/21 12:33	
Dibenz(a,h)anthracene	ug/kg	<2.3	16.7	04/13/21 12:33	
Fluoranthene	ug/kg	<2.0	16.7	04/13/21 12:33	
Fluorene	ug/kg	<2.0	16.7	04/13/21 12:33	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.5	16.7	04/13/21 12:33	
Naphthalene	ug/kg	<1.6	16.7	04/13/21 12:33	
Phenanthrene	ug/kg	<1.9	16.7	04/13/21 12:33	
Pyrene	ug/kg	<2.5	16.7	04/13/21 12:33	
2-Fluorobiphenyl (S)	%	72	36-86	04/13/21 12:33	
Terphenyl-d14 (S)	%	86	41-97	04/13/21 12:33	

LABORATORY CONTROL SAMPLE: 2204840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	334	251	75	53-100	
2-Methylnaphthalene	ug/kg	334	253	76	51-97	
Acenaphthene	ug/kg	334	259	78	62-120	
Acenaphthylene	ug/kg	334	264	79	61-120	
Anthracene	ug/kg	334	275	82	62-111	
Benzo(a)anthracene	ug/kg	334	281	84	61-120	
Benzo(a)pyrene	ug/kg	334	299	90	65-120	
Benzo(b)fluoranthene	ug/kg	334	278	83	64-108	
Benzo(g,h,i)perylene	ug/kg	334	260	78	71-120	
Benzo(k)fluoranthene	ug/kg	334	286	86	76-120	
Chrysene	ug/kg	334	261	78	74-120	
Dibenz(a,h)anthracene	ug/kg	334	283	85	71-120	
Fluoranthene	ug/kg	334	291	87	67-112	
Fluorene	ug/kg	334	265	79	65-120	
Indeno(1,2,3-cd)pyrene	ug/kg	334	299	90	74-120	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: #2 ABOVE
Pace Project No.: 40224473

LABORATORY CONTROL SAMPLE: 2204840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	334	254	76	53-120	
Phenanthrene	ug/kg	334	278	83	67-120	
Pyrene	ug/kg	334	304	91	60-103	
2-Fluorobiphenyl (S)	%			75	36-86	
Terphenyl-d14 (S)	%			89	41-97	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2204841 2204842

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40224481008 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
1-Methylnaphthalene	ug/kg	<0.029 mg/kg	390	391	270	241	69	62	41-100	11	29	
2-Methylnaphthalene	ug/kg	<0.029 mg/kg	390	391	274	237	70	61	42-97	14	21	
Acenaphthene	ug/kg	<0.025 mg/kg	390	391	262	246	67	63	43-120	6	27	
Acenaphthylene	ug/kg	<0.025 mg/kg	390	391	265	241	68	62	51-120	9	26	
Anthracene	ug/kg	<0.024 mg/kg	390	391	271	261	69	67	46-111	4	29	
Benzo(a)anthracene	ug/kg	0.033J mg/kg	390	391	304	307	70	70	48-120	1	23	
Benzo(a)pyrene	ug/kg	<0.022 mg/kg	390	391	287	290	70	70	46-108	1	30	
Benzo(b)fluoranthene	ug/kg	<0.027 mg/kg	390	391	287	296	69	71	45-108	3	30	
Benzo(g,h,i)perylene	ug/kg	<0.034 mg/kg	390	391	231	221	56	53	39-120	4	37	
Benzo(k)fluoranthene	ug/kg	<0.025 mg/kg	390	391	304	289	75	71	47-120	5	31	
Chrysene	ug/kg	<0.037 mg/kg	390	391	282	276	68	66	54-120	2	21	
Dibenz(a,h)anthracene	ug/kg	<0.027 mg/kg	390	391	230	218	59	56	46-120	5	34	
Fluoranthene	ug/kg	0.027J mg/kg	390	391	301	312	70	73	53-112	4	27	
Fluorene	ug/kg	<0.023 mg/kg	390	391	257	269	66	69	48-120	5	29	
Indeno(1,2,3-cd)pyrene	ug/kg	<0.041 mg/kg	390	391	241	233	60	58	40-120	3	34	
Naphthalene	ug/kg	<0.019 mg/kg	390	391	267	258	69	66	47-120	4	25	D3
Phenanthrene	ug/kg	<0.022 mg/kg	390	391	279	269	68	66	49-120	4	28	
Pyrene	ug/kg	0.031J mg/kg	390	391	289	275	66	62	43-103	5	31	
2-Fluorobiphenyl (S)	%						64	59	36-86			
Terphenyl-d14 (S)	%						61	54	41-97			

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

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QUALITY CONTROL DATA

Project: #2 ABOVE

Pace Project No.: 40224473

QC Batch: 381548

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224473001

SAMPLE DUPLICATE: 2200632

Parameter	Units	40224456016 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.3	12.7	4	10	

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QUALIFIERS

Project: #2 ABOVE

Pace Project No.: 40224473

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 - Estimated concentration at or above the LOD and below the LOQ.

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.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

R1 RPD value was outside control limits.

S0 Surrogate recovery outside laboratory control limits.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: #2 ABOVE

Pace Project No.: 40224473

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40224473001	#2 ABOVE	EPA 3541	381655	EPA 8082	381671
40224473001	#2 ABOVE	EPA 3050	381497	EPA 6010	381704
40224473001	#2 ABOVE	EPA 7471	382313	EPA 7471	382422
40224473001	#2 ABOVE	EPA 3546	382236	EPA 8270E by SIM	382305
40224473001	#2 ABOVE	EPA 5035/5030B	382037	EPA 8260	382038
40224473001	#2 ABOVE	ASTM D2974-87	381548		

REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

UPPER MIDWEST REGION

Page 1 of

Company Name: **Marinette Marine**
 Branch/Location: **Marinette**
 Project Contact: **Makayla Jacobs**
 Phone: **715-245-1931**
 Project Number:
 Project Name: **#2 above**
 Project State: **WI**
 Sampled By (Print): **warren / Makayla**
 Sampled By (Sign): *[Signature]*
 PO #:
 Regulatory Program:



MN: 612-607-1700 WI: 920-469-2436

40224473

CHAIN OF CUSTODY

***Preservation Codes**
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?
(YES/NO)
 PRESERVATION
(CODE)*

Y/N	Pick Letter	Analyses Requested															
		PVOC/VOC															
		RCRA Metals															
		PAHs															
		PCBs															

Quote #: _____
 Mail To Contact: _____
 Mail To Company: _____
 Mail To Address: _____
 Invoice To Contact: _____
 Invoice To Company: _____
 Invoice To Address: _____
 Invoice To Phone: _____
 CLIENT COMMENTS: _____
 LAB COMMENTS (Lab Use Only): _____
 Profile #: _____

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Biota DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Waste Water
 SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Y/N	Pick Letter	Analyses Requested											
		DATE	TIME															
081	#2 above	4-2-21	9:30	S				X	X	X	X							

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed: _____
 Transmit Prelim Rush Results by (complete what you want): _____

Relinquished By: Makayla Jacobs Date/Time: 4-2-21 9:50	Received By: <i>[Signature]</i> Date/Time: 4/3/21 1035	PACE Project No. 40224473 Receipt Temp = 2.5 °C Sample Receipt pH OK / Adjusted Cooler Custody Seal Present / Not Present Intact / Not Intact
Relinquished By: UPS Date/Time: 4/3/21 1035	Received By: <i>[Signature]</i> Date/Time: 4/3/21 1035	
Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	
Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	

Pages 22 of 24

Client Name: Marinette Manne

Sample Preservation Receipt Form

Project # 40224473

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

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): _____

Initial when completed: _____

Date/Time: _____

Pace Lab #	Glass						Plastic					Vials				Jars				General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)		
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU								WPFU	SP5T
001																															2.5 / 5 / 10
002																															2.5 / 5 / 10
003																															2.5 / 5 / 10
004																															2.5 / 5 / 10
005																															2.5 / 5 / 10
006																															2.5 / 5 / 10
007																															2.5 / 5 / 10
008																															2.5 / 5 / 10
009																															2.5 / 5 / 10
010																															2.5 / 5 / 10
011																															2.5 / 5 / 10
012																															2.5 / 5 / 10
013																															2.5 / 5 / 10
014																															2.5 / 5 / 10
015																															2.5 / 5 / 10
016																															2.5 / 5 / 10
017																															2.5 / 5 / 10
018																															2.5 / 5 / 10
019																															2.5 / 5 / 10
020																															2.5 / 5 / 10

4/13/21
[Signature]

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
AG4U	120 mL amber glass unpres
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

VG9A	40 mL clear ascorbic
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	



Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
Document No.: ENV-FRM-GBAY-0014-Rev.00	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Marinette Marine

Project #: _____

WO#: 40224473

Courier: CS Logistics Fed Ex Speedee UPS Walco
 Client Pace Other: _____

Tracking #: 12 578 899 44 6652 2545

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-90 Type of Ice: Wet Blue Dry None

Cooler Temperature Uncorr: 3 / Corr: 2.5

Samples on ice, cooling process has begun

Temp Blank Present: yes no Biological Tissue is Frozen: yes no

Person examining contents:
 Date: 4/3/21 / Initials: [Signature]
 Labeled By Initials: [Signature]

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

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2.	<u>PK #, mail, Invoice, pg#</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.	
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.	
Sufficient Volume:		8.	
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.	
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix: <u>S</u>			<u>Ink smeared off, half legible.</u>
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		<u>4/3/21</u>
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution: _____
 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 logir

April 16, 2021

Makayla Jacobs
Fincantieri Marinette Marine
1600 Ely Street
Marinette, WI 54143

RE: Project: #2 BELOW
Pace Project No.: 40224474

Dear Makayla Jacobs:

Enclosed are the analytical results for sample(s) received by the laboratory on April 03, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Green Bay

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

Sincerely,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: #2 BELOW

Pace Project No.: 40224474

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

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: #2 BELOW
Pace Project No.: 40224474

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40224474001	#2 BELOW	Solid	04/01/21 09:30	04/03/21 10:35

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: #2 BELOW

Pace Project No.: 40224474

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40224474001	#2 BELOW	EPA 8082	BLM	10
		EPA 6010	TXW	7
		EPA 7471	AJT	1
		EPA 8270E by SIM	JJB	20
		EPA 8260	MDS	64
		ASTM D2974-87	AH	1

PASI-G = Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: #2 BELOW
Pace Project No.: 40224474

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40224474001	#2 BELOW					
EPA 8082	PCB-1242 (Aroclor 1242)	56.7J	ug/kg	72.5	04/10/21 16:25	
EPA 8082	PCB-1254 (Aroclor 1254)	53.6J	ug/kg	72.5	04/10/21 16:25	
EPA 8082	PCB-1260 (Aroclor 1260)	24.1J	ug/kg	72.5	04/10/21 16:25	
EPA 8082	PCB, Total	134	ug/kg	72.5	04/10/21 16:25	
EPA 6010	Arsenic	45.7	mg/kg	3.6	04/07/21 13:29	
EPA 6010	Barium	669	mg/kg	0.71	04/07/21 13:29	
EPA 6010	Cadmium	9.7	mg/kg	0.71	04/07/21 13:29	
EPA 6010	Chromium	30.5	mg/kg	1.4	04/07/21 13:29	
EPA 6010	Lead	524	mg/kg	2.9	04/07/21 13:29	
EPA 6010	Silver	8.2	mg/kg	1.4	04/07/21 13:29	
EPA 7471	Mercury	0.57	mg/kg	0.046	04/14/21 12:02	
EPA 8270E by SIM	Acenaphthene	570J	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Acenaphthylene	1460J	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Anthracene	3200	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Benzo(a)anthracene	9390	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Benzo(a)pyrene	9360	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Benzo(b)fluoranthene	12900	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Benzo(g,h,i)perylene	6700	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Benzo(k)fluoranthene	4790	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Chrysene	10700	ug/kg	2420	04/14/21 17:25	L2
EPA 8270E by SIM	Dibenz(a,h)anthracene	1960J	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Fluoranthene	27700	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Fluorene	1150J	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Indeno(1,2,3-cd)pyrene	5850	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	1-Methylnaphthalene	493J	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	2-Methylnaphthalene	514J	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Naphthalene	1350J	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Phenanthrene	17400	ug/kg	2420	04/14/21 17:25	
EPA 8270E by SIM	Pyrene	22600	ug/kg	2420	04/14/21 17:25	
EPA 8260	Methylene Chloride	58.1J	ug/kg	94.9	04/09/21 20:31	
EPA 8260	Naphthalene	91.7J	ug/kg	475	04/09/21 20:31	
EPA 8260	Toluene	84.8J	ug/kg	94.9	04/09/21 20:31	
EPA 8260	m&p-Xylene	49.4J	ug/kg	190	04/09/21 20:31	
EPA 8260	o-Xylene	30.8J	ug/kg	94.9	04/09/21 20:31	
ASTM D2974-87	Percent Moisture	31.0	%	0.10	04/05/21 14:08	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #2 BELOW
Pace Project No.: 40224474

Sample: #2 BELOW Lab ID: **40224474001** Collected: 04/01/21 09:30 Received: 04/03/21 10:35 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
8082 GCS PCB									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
Pace Analytical Services - Green Bay									
PCB-1016 (Aroclor 1016)	<22.1	ug/kg	72.5	22.1	1	04/06/21 13:31	04/10/21 16:25	12674-11-2	
PCB-1221 (Aroclor 1221)	<22.1	ug/kg	72.5	22.1	1	04/06/21 13:31	04/10/21 16:25	11104-28-2	
PCB-1232 (Aroclor 1232)	<22.1	ug/kg	72.5	22.1	1	04/06/21 13:31	04/10/21 16:25	11141-16-5	
PCB-1242 (Aroclor 1242)	56.7J	ug/kg	72.5	22.1	1	04/06/21 13:31	04/10/21 16:25	53469-21-9	
PCB-1248 (Aroclor 1248)	<22.1	ug/kg	72.5	22.1	1	04/06/21 13:31	04/10/21 16:25	12672-29-6	
PCB-1254 (Aroclor 1254)	53.6J	ug/kg	72.5	22.1	1	04/06/21 13:31	04/10/21 16:25	11097-69-1	
PCB-1260 (Aroclor 1260)	24.1J	ug/kg	72.5	22.1	1	04/06/21 13:31	04/10/21 16:25	11096-82-5	
PCB, Total	134	ug/kg	72.5	22.1	1	04/06/21 13:31	04/10/21 16:25	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	79	%	67-102		1	04/06/21 13:31	04/10/21 16:25	877-09-8	
Decachlorobiphenyl (S)	45	%	47-114		1	04/06/21 13:31	04/10/21 16:25	2051-24-3	S0
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Pace Analytical Services - Green Bay									
Arsenic	45.7	mg/kg	3.6	2.1	1	04/06/21 07:42	04/07/21 13:29	7440-38-2	
Barium	669	mg/kg	0.71	0.21	1	04/06/21 07:42	04/07/21 13:29	7440-39-3	
Cadmium	9.7	mg/kg	0.71	0.19	1	04/06/21 07:42	04/07/21 13:29	7440-43-9	
Chromium	30.5	mg/kg	1.4	0.40	1	04/06/21 07:42	04/07/21 13:29	7440-47-3	
Lead	524	mg/kg	2.9	0.85	1	04/06/21 07:42	04/07/21 13:29	7439-92-1	
Selenium	<1.9	mg/kg	5.7	1.9	1	04/06/21 07:42	04/07/21 13:29	7782-49-2	
Silver	8.2	mg/kg	1.4	0.44	1	04/06/21 07:42	04/07/21 13:29	7440-22-4	
7471 Mercury									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Pace Analytical Services - Green Bay									
Mercury	0.57	mg/kg	0.046	0.013	1	04/14/21 07:31	04/14/21 12:02	7439-97-6	
8270E MSSV PAH by SIM									
Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546									
Pace Analytical Services - Green Bay									
Acenaphthene	570J	ug/kg	2420	314	100	04/14/21 08:29	04/14/21 17:25	83-32-9	
Acenaphthylene	1460J	ug/kg	2420	305	100	04/14/21 08:29	04/14/21 17:25	208-96-8	
Anthracene	3200	ug/kg	2420	300	100	04/14/21 08:29	04/14/21 17:25	120-12-7	
Benzo(a)anthracene	9390	ug/kg	2420	312	100	04/14/21 08:29	04/14/21 17:25	56-55-3	
Benzo(a)pyrene	9360	ug/kg	2420	275	100	04/14/21 08:29	04/14/21 17:25	50-32-8	
Benzo(b)fluoranthene	12900	ug/kg	2420	336	100	04/14/21 08:29	04/14/21 17:25	205-99-2	
Benzo(g,h,i)perylene	6700	ug/kg	2420	424	100	04/14/21 08:29	04/14/21 17:25	191-24-2	
Benzo(k)fluoranthene	4790	ug/kg	2420	309	100	04/14/21 08:29	04/14/21 17:25	207-08-9	
Chrysene	10700	ug/kg	2420	456	100	04/14/21 08:29	04/14/21 17:25	218-01-9	L2
Dibenz(a,h)anthracene	1960J	ug/kg	2420	335	100	04/14/21 08:29	04/14/21 17:25	53-70-3	
Fluoranthene	27700	ug/kg	2420	286	100	04/14/21 08:29	04/14/21 17:25	206-44-0	
Fluorene	1150J	ug/kg	2420	290	100	04/14/21 08:29	04/14/21 17:25	86-73-7	
Indeno(1,2,3-cd)pyrene	5850	ug/kg	2420	504	100	04/14/21 08:29	04/14/21 17:25	193-39-5	
1-Methylnaphthalene	493J	ug/kg	2420	353	100	04/14/21 08:29	04/14/21 17:25	90-12-0	
2-Methylnaphthalene	514J	ug/kg	2420	354	100	04/14/21 08:29	04/14/21 17:25	91-57-6	
Naphthalene	1350J	ug/kg	2420	236	100	04/14/21 08:29	04/14/21 17:25	91-20-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #2 BELOW
Pace Project No.: 40224474

Sample: #2 BELOW Lab ID: 40224474001 Collected: 04/01/21 09:30 Received: 04/03/21 10:35 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	17400	ug/kg	2420	277	100	04/14/21 08:29	04/14/21 17:25	85-01-8	
Pyrene	22600	ug/kg	2420	355	100	04/14/21 08:29	04/14/21 17:25	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	0	%	36-86		100	04/14/21 08:29	04/14/21 17:25	321-60-8	S4
Terphenyl-d14 (S)	0	%	41-97		100	04/14/21 08:29	04/14/21 17:25	1718-51-0	S4
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	<22.8	ug/kg	94.9	22.8	1	04/09/21 10:15	04/09/21 20:31	630-20-6	
1,1,1-Trichloroethane	<24.3	ug/kg	94.9	24.3	1	04/09/21 10:15	04/09/21 20:31	71-55-6	
1,1,2,2-Tetrachloroethane	<34.4	ug/kg	94.9	34.4	1	04/09/21 10:15	04/09/21 20:31	79-34-5	
1,1,2-Trichloroethane	<34.6	ug/kg	94.9	34.6	1	04/09/21 10:15	04/09/21 20:31	79-00-5	
1,1-Dichloroethane	<24.3	ug/kg	94.9	24.3	1	04/09/21 10:15	04/09/21 20:31	75-34-3	
1,1-Dichloroethene	<31.5	ug/kg	94.9	31.5	1	04/09/21 10:15	04/09/21 20:31	75-35-4	
1,1-Dichloropropene	<30.8	ug/kg	94.9	30.8	1	04/09/21 10:15	04/09/21 20:31	563-58-6	
1,2,3-Trichlorobenzene	<106	ug/kg	475	106	1	04/09/21 10:15	04/09/21 20:31	87-61-6	
1,2,3-Trichloropropane	<46.1	ug/kg	94.9	46.1	1	04/09/21 10:15	04/09/21 20:31	96-18-4	
1,2,4-Trichlorobenzene	<78.2	ug/kg	475	78.2	1	04/09/21 10:15	04/09/21 20:31	120-82-1	
1,2,4-Trimethylbenzene	<28.3	ug/kg	94.9	28.3	1	04/09/21 10:15	04/09/21 20:31	95-63-6	
1,2-Dibromo-3-chloropropane	<73.7	ug/kg	475	73.7	1	04/09/21 10:15	04/09/21 20:31	96-12-8	
1,2-Dibromoethane (EDB)	<26.0	ug/kg	94.9	26.0	1	04/09/21 10:15	04/09/21 20:31	106-93-4	
1,2-Dichlorobenzene	<29.4	ug/kg	94.9	29.4	1	04/09/21 10:15	04/09/21 20:31	95-50-1	
1,2-Dichloroethane	<21.8	ug/kg	94.9	21.8	1	04/09/21 10:15	04/09/21 20:31	107-06-2	
1,2-Dichloropropane	<22.6	ug/kg	94.9	22.6	1	04/09/21 10:15	04/09/21 20:31	78-87-5	
1,3,5-Trimethylbenzene	<30.6	ug/kg	94.9	30.6	1	04/09/21 10:15	04/09/21 20:31	108-67-8	
1,3-Dichlorobenzene	<26.0	ug/kg	94.9	26.0	1	04/09/21 10:15	04/09/21 20:31	541-73-1	
1,3-Dichloropropane	<20.7	ug/kg	94.9	20.7	1	04/09/21 10:15	04/09/21 20:31	142-28-9	
1,4-Dichlorobenzene	<26.0	ug/kg	94.9	26.0	1	04/09/21 10:15	04/09/21 20:31	106-46-7	
2,2-Dichloropropane	<25.6	ug/kg	94.9	25.6	1	04/09/21 10:15	04/09/21 20:31	594-20-7	
2-Chlorotoluene	<30.8	ug/kg	94.9	30.8	1	04/09/21 10:15	04/09/21 20:31	95-49-8	
4-Chlorotoluene	<36.1	ug/kg	94.9	36.1	1	04/09/21 10:15	04/09/21 20:31	106-43-4	
Benzene	<22.6	ug/kg	38.0	22.6	1	04/09/21 10:15	04/09/21 20:31	71-43-2	
Bromobenzene	<37.0	ug/kg	94.9	37.0	1	04/09/21 10:15	04/09/21 20:31	108-86-1	
Bromochloromethane	<26.0	ug/kg	94.9	26.0	1	04/09/21 10:15	04/09/21 20:31	74-97-5	
Bromodichloromethane	<22.6	ug/kg	94.9	22.6	1	04/09/21 10:15	04/09/21 20:31	75-27-4	
Bromoform	<418	ug/kg	475	418	1	04/09/21 10:15	04/09/21 20:31	75-25-2	
Bromomethane	<133	ug/kg	475	133	1	04/09/21 10:15	04/09/21 20:31	74-83-9	
Carbon tetrachloride	<20.9	ug/kg	94.9	20.9	1	04/09/21 10:15	04/09/21 20:31	56-23-5	
Chlorobenzene	<11.4	ug/kg	94.9	11.4	1	04/09/21 10:15	04/09/21 20:31	108-90-7	
Chloroethane	<40.1	ug/kg	475	40.1	1	04/09/21 10:15	04/09/21 20:31	75-00-3	
Chloroform	<68.0	ug/kg	475	68.0	1	04/09/21 10:15	04/09/21 20:31	67-66-3	
Chloromethane	<36.1	ug/kg	94.9	36.1	1	04/09/21 10:15	04/09/21 20:31	74-87-3	
Dibromochloromethane	<324	ug/kg	475	324	1	04/09/21 10:15	04/09/21 20:31	124-48-1	
Dibromomethane	<28.1	ug/kg	94.9	28.1	1	04/09/21 10:15	04/09/21 20:31	74-95-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #2 BELOW
Pace Project No.: 40224474

Sample: #2 BELOW **Lab ID: 40224474001** Collected: 04/01/21 09:30 Received: 04/03/21 10:35 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	<40.8	ug/kg	94.9	40.8	1	04/09/21 10:15	04/09/21 20:31	75-71-8	
Diisopropyl ether	<23.5	ug/kg	94.9	23.5	1	04/09/21 10:15	04/09/21 20:31	108-20-3	
Ethylbenzene	<22.6	ug/kg	94.9	22.6	1	04/09/21 10:15	04/09/21 20:31	100-41-4	
Hexachloro-1,3-butadiene	<189	ug/kg	475	189	1	04/09/21 10:15	04/09/21 20:31	87-68-3	
Isopropylbenzene (Cumene)	<25.6	ug/kg	94.9	25.6	1	04/09/21 10:15	04/09/21 20:31	98-82-8	
Methyl-tert-butyl ether	<27.9	ug/kg	94.9	27.9	1	04/09/21 10:15	04/09/21 20:31	1634-04-4	
Methylene Chloride	58.1J	ug/kg	94.9	26.4	1	04/09/21 10:15	04/09/21 20:31	75-09-2	
Naphthalene	91.7J	ug/kg	475	29.6	1	04/09/21 10:15	04/09/21 20:31	91-20-3	
Styrene	<24.3	ug/kg	94.9	24.3	1	04/09/21 10:15	04/09/21 20:31	100-42-5	
Tetrachloroethene	<36.8	ug/kg	94.9	36.8	1	04/09/21 10:15	04/09/21 20:31	127-18-4	
Toluene	84.8J	ug/kg	94.9	23.9	1	04/09/21 10:15	04/09/21 20:31	108-88-3	
Trichloroethene	<35.5	ug/kg	94.9	35.5	1	04/09/21 10:15	04/09/21 20:31	79-01-6	
Trichlorofluoromethane	<27.5	ug/kg	94.9	27.5	1	04/09/21 10:15	04/09/21 20:31	75-69-4	
Vinyl chloride	<19.2	ug/kg	94.9	19.2	1	04/09/21 10:15	04/09/21 20:31	75-01-4	
cis-1,2-Dichloroethene	<20.3	ug/kg	94.9	20.3	1	04/09/21 10:15	04/09/21 20:31	156-59-2	
cis-1,3-Dichloropropene	<62.7	ug/kg	475	62.7	1	04/09/21 10:15	04/09/21 20:31	10061-01-5	
m&p-Xylene	49.4J	ug/kg	190	40.1	1	04/09/21 10:15	04/09/21 20:31	179601-23-1	
n-Butylbenzene	<43.5	ug/kg	94.9	43.5	1	04/09/21 10:15	04/09/21 20:31	104-51-8	
n-Propylbenzene	<22.8	ug/kg	94.9	22.8	1	04/09/21 10:15	04/09/21 20:31	103-65-1	
o-Xylene	30.8J	ug/kg	94.9	28.5	1	04/09/21 10:15	04/09/21 20:31	95-47-6	
p-Isopropyltoluene	<28.9	ug/kg	94.9	28.9	1	04/09/21 10:15	04/09/21 20:31	99-87-6	
sec-Butylbenzene	<23.2	ug/kg	94.9	23.2	1	04/09/21 10:15	04/09/21 20:31	135-98-8	
tert-Butylbenzene	<29.8	ug/kg	94.9	29.8	1	04/09/21 10:15	04/09/21 20:31	98-06-6	
trans-1,2-Dichloroethene	<20.5	ug/kg	94.9	20.5	1	04/09/21 10:15	04/09/21 20:31	156-60-5	
trans-1,3-Dichloropropene	<272	ug/kg	475	272	1	04/09/21 10:15	04/09/21 20:31	10061-02-6	
Surrogates									
Toluene-d8 (S)	133	%	67-159		1	04/09/21 10:15	04/09/21 20:31	2037-26-5	
4-Bromofluorobenzene (S)	136	%	66-153		1	04/09/21 10:15	04/09/21 20:31	460-00-4	
1,2-Dichlorobenzene-d4 (S)	133	%	82-158		1	04/09/21 10:15	04/09/21 20:31	2199-69-1	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	31.0	%	0.10	0.10	1		04/05/21 14:08		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: #2 BELOW
Pace Project No.: 40224474

QC Batch: 382313	Analysis Method: EPA 7471
QC Batch Method: EPA 7471	Analysis Description: 7471 Mercury
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224474001

METHOD BLANK: 2205177 Matrix: Solid

Associated Lab Samples: 40224474001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.010	0.035	04/14/21 11:22	

LABORATORY CONTROL SAMPLE: 2205178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.83	0.82	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2205179 2205180

Parameter	Units	2205179		2205180		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224520001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/kg	0.32	0.92	0.9	1.3	1.1	107	89	85-115	14	20

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: #2 BELOW
Pace Project No.: 40224474

QC Batch: 381497	Analysis Method: EPA 6010
QC Batch Method: EPA 3050	Analysis Description: 6010 MET
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224474001

METHOD BLANK: 2200434 Matrix: Solid

Associated Lab Samples: 40224474001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.5	2.5	04/07/21 11:43	
Barium	mg/kg	<0.15	0.50	04/07/21 11:43	
Cadmium	mg/kg	<0.13	0.50	04/07/21 11:43	
Chromium	mg/kg	<0.28	1.0	04/07/21 11:43	
Lead	mg/kg	<0.60	2.0	04/07/21 11:43	
Selenium	mg/kg	<1.3	4.0	04/07/21 11:43	
Silver	mg/kg	<0.31	1.0	04/07/21 11:43	

LABORATORY CONTROL SAMPLE: 2200435

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	50.8	102	80-120	
Barium	mg/kg	50	49.6	99	80-120	
Cadmium	mg/kg	50	50.0	100	80-120	
Chromium	mg/kg	50	51.9	104	80-120	
Lead	mg/kg	50	51.0	102	80-120	
Selenium	mg/kg	50	51.3	103	80-120	
Silver	mg/kg	25	23.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2200436 2200437

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224473001 Result	Spike Conc.	Spike Conc.	Result						
Arsenic	mg/kg	18.5	60	60.2	77.7	77.6	99	98	75-125	0	20
Barium	mg/kg	26.8	60	60.2	88.1	87.6	102	101	75-125	1	20
Cadmium	mg/kg	0.29J	60	60.2	59.2	59.1	98	98	75-125	0	20
Chromium	mg/kg	8.5	60	60.2	68.4	69.6	100	101	75-125	2	20
Lead	mg/kg	62.9	60	60.2	119	116	94	89	75-125	3	20
Selenium	mg/kg	<1.6	60	60.2	60.5	61.4	101	102	75-125	1	20
Silver	mg/kg	<0.37	30	30.1	28.2	28.3	93	94	75-125	0	20

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: #2 BELOW
Pace Project No.: 40224474

QC Batch: 382037 Analysis Method: EPA 8260
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224474001

METHOD BLANK: 2203495 Matrix: Solid

Associated Lab Samples: 40224474001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<12.0	50.0	04/09/21 16:29	
1,1,1-Trichloroethane	ug/kg	<12.8	50.0	04/09/21 16:29	
1,1,2,2-Tetrachloroethane	ug/kg	<18.1	50.0	04/09/21 16:29	
1,1,2-Trichloroethane	ug/kg	<18.2	50.0	04/09/21 16:29	
1,1-Dichloroethane	ug/kg	<12.8	50.0	04/09/21 16:29	
1,1-Dichloroethene	ug/kg	<16.6	50.0	04/09/21 16:29	
1,1-Dichloropropene	ug/kg	<16.2	50.0	04/09/21 16:29	
1,2,3-Trichlorobenzene	ug/kg	<55.7	250	04/09/21 16:29	
1,2,3-Trichloropropane	ug/kg	<24.3	50.0	04/09/21 16:29	
1,2,4-Trichlorobenzene	ug/kg	<41.2	250	04/09/21 16:29	
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	04/09/21 16:29	
1,2-Dibromo-3-chloropropane	ug/kg	<38.8	250	04/09/21 16:29	
1,2-Dibromoethane (EDB)	ug/kg	<13.7	50.0	04/09/21 16:29	
1,2-Dichlorobenzene	ug/kg	<15.5	50.0	04/09/21 16:29	
1,2-Dichloroethane	ug/kg	<11.5	50.0	04/09/21 16:29	
1,2-Dichloropropane	ug/kg	<11.9	50.0	04/09/21 16:29	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	04/09/21 16:29	
1,3-Dichlorobenzene	ug/kg	<13.7	50.0	04/09/21 16:29	
1,3-Dichloropropane	ug/kg	<10.9	50.0	04/09/21 16:29	
1,4-Dichlorobenzene	ug/kg	<13.7	50.0	04/09/21 16:29	
2,2-Dichloropropane	ug/kg	<13.5	50.0	04/09/21 16:29	
2-Chlorotoluene	ug/kg	<16.2	50.0	04/09/21 16:29	
4-Chlorotoluene	ug/kg	<19.0	50.0	04/09/21 16:29	
Benzene	ug/kg	<11.9	20.0	04/09/21 16:29	
Bromobenzene	ug/kg	<19.5	50.0	04/09/21 16:29	
Bromochloromethane	ug/kg	<13.7	50.0	04/09/21 16:29	
Bromodichloromethane	ug/kg	<11.9	50.0	04/09/21 16:29	
Bromoform	ug/kg	<220	250	04/09/21 16:29	
Bromomethane	ug/kg	<70.1	250	04/09/21 16:29	
Carbon tetrachloride	ug/kg	<11.0	50.0	04/09/21 16:29	
Chlorobenzene	ug/kg	<6.0	50.0	04/09/21 16:29	
Chloroethane	ug/kg	<21.1	250	04/09/21 16:29	
Chloroform	ug/kg	<35.8	250	04/09/21 16:29	
Chloromethane	ug/kg	<19.0	50.0	04/09/21 16:29	
cis-1,2-Dichloroethene	ug/kg	<10.7	50.0	04/09/21 16:29	
cis-1,3-Dichloropropene	ug/kg	<33.0	250	04/09/21 16:29	
Dibromochloromethane	ug/kg	<171	250	04/09/21 16:29	
Dibromomethane	ug/kg	<14.8	50.0	04/09/21 16:29	
Dichlorodifluoromethane	ug/kg	<21.5	50.0	04/09/21 16:29	
Diisopropyl ether	ug/kg	<12.4	50.0	04/09/21 16:29	

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QUALITY CONTROL DATA

Project: #2 BELOW
Pace Project No.: 40224474

METHOD BLANK: 2203495
Associated Lab Samples: 40224474001

Matrix: Solid

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/kg	<11.9	50.0	04/09/21 16:29	
Hexachloro-1,3-butadiene	ug/kg	<99.4	250	04/09/21 16:29	
Isopropylbenzene (Cumene)	ug/kg	<13.5	50.0	04/09/21 16:29	
m&p-Xylene	ug/kg	<21.1	100	04/09/21 16:29	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	04/09/21 16:29	
Methylene Chloride	ug/kg	<13.9	50.0	04/09/21 16:29	
n-Butylbenzene	ug/kg	<22.9	50.0	04/09/21 16:29	
n-Propylbenzene	ug/kg	<12.0	50.0	04/09/21 16:29	
Naphthalene	ug/kg	<15.6	250	04/09/21 16:29	
o-Xylene	ug/kg	<15.0	50.0	04/09/21 16:29	
p-Isopropyltoluene	ug/kg	<15.2	50.0	04/09/21 16:29	
sec-Butylbenzene	ug/kg	<12.2	50.0	04/09/21 16:29	
Styrene	ug/kg	<12.8	50.0	04/09/21 16:29	
tert-Butylbenzene	ug/kg	<15.7	50.0	04/09/21 16:29	
Tetrachloroethene	ug/kg	<19.4	50.0	04/09/21 16:29	
Toluene	ug/kg	<12.6	50.0	04/09/21 16:29	
trans-1,2-Dichloroethene	ug/kg	<10.8	50.0	04/09/21 16:29	
trans-1,3-Dichloropropene	ug/kg	<143	250	04/09/21 16:29	
Trichloroethene	ug/kg	<18.7	50.0	04/09/21 16:29	
Trichlorofluoromethane	ug/kg	<14.5	50.0	04/09/21 16:29	
Vinyl chloride	ug/kg	<10.1	50.0	04/09/21 16:29	
1,2-Dichlorobenzene-d4 (S)	%	89	82-158	04/09/21 16:29	
4-Bromofluorobenzene (S)	%	91	66-153	04/09/21 16:29	
Toluene-d8 (S)	%	95	67-159	04/09/21 16:29	

LABORATORY CONTROL SAMPLE: 2203496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2380	95	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2400	96	65-129	
1,1,2-Trichloroethane	ug/kg	2500	2450	98	70-130	
1,1-Dichloroethane	ug/kg	2500	2480	99	70-130	
1,1-Dichloroethene	ug/kg	2500	1840	73	67-120	
1,2,4-Trichlorobenzene	ug/kg	2500	1800	72	64-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2520	101	57-119	
1,2-Dibromoethane (EDB)	ug/kg	2500	2430	97	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2310	92	70-130	
1,2-Dichloroethane	ug/kg	2500	2500	100	70-130	
1,2-Dichloropropane	ug/kg	2500	2410	96	72-118	
1,3-Dichlorobenzene	ug/kg	2500	2180	87	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2170	87	70-130	
Benzene	ug/kg	2500	2280	91	70-130	
Bromodichloromethane	ug/kg	2500	2370	95	70-130	
Bromoform	ug/kg	2500	2270	91	66-130	

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QUALITY CONTROL DATA

Project: #2 BELOW
Pace Project No.: 40224474

LABORATORY CONTROL SAMPLE: 2203496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/kg	2500	1270	51	13-153	
Carbon tetrachloride	ug/kg	2500	2330	93	73-134	
Chlorobenzene	ug/kg	2500	2320	93	70-130	
Chloroethane	ug/kg	2500	1730	69	19-170	
Chloroform	ug/kg	2500	2430	97	79-120	
Chloromethane	ug/kg	2500	1860	75	45-117	
cis-1,2-Dichloroethene	ug/kg	2500	2200	88	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2310	92	68-130	
Dibromochloromethane	ug/kg	2500	2180	87	70-130	
Dichlorodifluoromethane	ug/kg	2500	1670	67	15-135	
Ethylbenzene	ug/kg	2500	2280	91	78-120	
Isopropylbenzene (Cumene)	ug/kg	2500	2410	96	70-130	
m&p-Xylene	ug/kg	5000	4490	90	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2390	96	65-130	
Methylene Chloride	ug/kg	2500	2260	90	70-130	
o-Xylene	ug/kg	2500	2290	92	70-130	
Styrene	ug/kg	2500	2460	99	70-130	
Tetrachloroethene	ug/kg	2500	1900	76	70-130	
Toluene	ug/kg	2500	2220	89	76-120	
trans-1,2-Dichloroethene	ug/kg	2500	2310	92	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2460	98	70-130	
Trichloroethene	ug/kg	2500	2270	91	70-130	
Trichlorofluoromethane	ug/kg	2500	1970	79	49-153	
Vinyl chloride	ug/kg	2500	1890	76	58-121	
1,2-Dichlorobenzene-d4 (S)	%			98	82-158	
4-Bromofluorobenzene (S)	%			102	66-153	
Toluene-d8 (S)	%			101	67-159	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2203497 2203498

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224684001 Result	Spike Conc.	Spike Conc.	Result						
1,1,1-Trichloroethane	ug/kg	<13.9			1040	1100			6	20	
1,1,2,2-Tetrachloroethane	ug/kg	<19.6			1060	1100			4	20	
1,1,2-Trichloroethane	ug/kg	<19.7			1190	1140			4	20	
1,1-Dichloroethane	ug/kg	<13.9			1200	1200			0	20	
1,1-Dichloroethene	ug/kg	<18.0			837	968			15	20	
1,2,4-Trichlorobenzene	ug/kg	<44.6			997	971			3	20	
1,2-Dibromo-3-chloropropane	ug/kg	<42.0			1170	1180			1	21	
1,2-Dibromoethane (EDB)	ug/kg	<14.8			1130	1130			0	20	
1,2-Dichlorobenzene	ug/kg	<16.8			1160	1180			2	20	
1,2-Dichloroethane	ug/kg	<12.5			1230	1180			5	20	
1,2-Dichloropropane	ug/kg	<12.9			1160	1120			3	20	
1,3-Dichlorobenzene	ug/kg	<14.8			1130	1140			1	20	

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QUALITY CONTROL DATA

Project: #2 BELOW
Pace Project No.: 40224474

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2203497		2203498		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224684001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
1,4-Dichlorobenzene	ug/kg	<14.8			1070	1170			9	20	
Benzene	ug/kg	<12.9			1100	1090			1	20	
Bromodichloromethane	ug/kg	<12.9			1070	1080			1	20	
Bromoform	ug/kg	<238			1040	1050			1	20	
Bromomethane	ug/kg	<75.9			701	672			4	20	
Carbon tetrachloride	ug/kg	<11.9			1000	1090			9	20	
Chlorobenzene	ug/kg	<6.5			1130	1130			0	20	
Chloroethane	ug/kg	<22.9			1140	1020			11	20	
Chloroform	ug/kg	<38.8			1160	1160			0	20	
Chloromethane	ug/kg	<20.6			1150	1180			3	20	
cis-1,2-Dichloroethene	ug/kg	<11.6			1060	1040			2	20	
cis-1,3-Dichloropropene	ug/kg	<35.7			1080	1080			0	20	
Dibromochloromethane	ug/kg	<185			978	994			2	20	
Dichlorodifluoromethane	ug/kg	<23.3			1040	1360			26	25	R1
Ethylbenzene	ug/kg	<12.9			1120	1110			1	20	
Isopropylbenzene (Cumene)	ug/kg	<14.6			1170	1190			2	20	
m&p-Xylene	ug/kg	<22.9			2210	2350			6	20	
Methyl-tert-butyl ether	ug/kg	<15.9			1090	1120			2	20	
Methylene Chloride	ug/kg	24.7J			1150	1140			1	20	
o-Xylene	ug/kg	<16.2			1170	1130			3	20	
Styrene	ug/kg	<13.9			1190	1220			2	20	
Tetrachloroethene	ug/kg	<21.0			896	911			2	20	
Toluene	ug/kg	<13.6			1090	1060			3	20	
trans-1,2-Dichloroethene	ug/kg	<11.7			1100	1110			0	20	
trans-1,3-Dichloropropene	ug/kg	<155			1180	1180			0	20	
Trichloroethene	ug/kg	<20.3			1020	1050			3	20	
Trichlorofluoromethane	ug/kg	<15.7			907	1040			14	21	
Vinyl chloride	ug/kg	<10.9			1010	1080			7	20	
1,2-Dichlorobenzene-d4 (S)	%						94	105	82-158		
4-Bromofluorobenzene (S)	%						104	114	66-153		
Toluene-d8 (S)	%						109	110	67-159		

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QUALITY CONTROL DATA

Project: #2 BELOW
Pace Project No.: 40224474

QC Batch: 381655 Analysis Method: EPA 8082
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224474001

METHOD BLANK: 2201076 Matrix: Solid
Associated Lab Samples: 40224474001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1221 (Aroclor 1221)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1232 (Aroclor 1232)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1242 (Aroclor 1242)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1248 (Aroclor 1248)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1254 (Aroclor 1254)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1260 (Aroclor 1260)	ug/kg	<15.2	50.0	04/07/21 09:45	
Decachlorobiphenyl (S)	%	79	47-114	04/07/21 09:45	
Tetrachloro-m-xylene (S)	%	82	67-102	04/07/21 09:45	

LABORATORY CONTROL SAMPLE: 2201077

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	405	81	69-115	
Decachlorobiphenyl (S)	%			80	47-114	
Tetrachloro-m-xylene (S)	%			85	67-102	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2201078 2201079

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224365039	Spike Conc.	Spike Conc.	Result						
PCB-1016 (Aroclor 1016)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1221 (Aroclor 1221)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1232 (Aroclor 1232)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1242 (Aroclor 1242)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1248 (Aroclor 1248)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1254 (Aroclor 1254)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20

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QUALITY CONTROL DATA

Project: #2 BELOW

Pace Project No.: 40224474

Parameter	Units	2201078		2201079		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224365039 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
PCB-1260 (Aroclor 1260)	ug/kg	<0.018 mg/kg	581	577	443	439	76	76	45-120	1	20		
Decachlorobiphenyl (S)	%							75	75	47-114			
Tetrachloro-m-xylene (S)	%							80	78	67-102			

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QUALITY CONTROL DATA

Project: #2 BELOW
Pace Project No.: 40224474

QC Batch: 382393 Analysis Method: EPA 8270E by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270E/3546 MSSV PAH by SIM
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224474001

METHOD BLANK: 2205462 Matrix: Solid
Associated Lab Samples: 40224474001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.4	16.7	04/14/21 11:58	
2-Methylnaphthalene	ug/kg	<2.4	16.7	04/14/21 11:58	
Acenaphthene	ug/kg	<2.2	16.7	04/14/21 11:58	
Acenaphthylene	ug/kg	<2.1	16.7	04/14/21 11:58	
Anthracene	ug/kg	<2.1	16.7	04/14/21 11:58	
Benzo(a)anthracene	ug/kg	<2.2	16.7	04/14/21 11:58	
Benzo(a)pyrene	ug/kg	<1.9	16.7	04/14/21 11:58	
Benzo(b)fluoranthene	ug/kg	<2.3	16.7	04/14/21 11:58	
Benzo(g,h,i)perylene	ug/kg	<2.9	16.7	04/14/21 11:58	
Benzo(k)fluoranthene	ug/kg	<2.1	16.7	04/14/21 11:58	
Chrysene	ug/kg	<3.1	16.7	04/14/21 11:58	
Dibenz(a,h)anthracene	ug/kg	<2.3	16.7	04/14/21 11:58	
Fluoranthene	ug/kg	<2.0	16.7	04/14/21 11:58	
Fluorene	ug/kg	<2.0	16.7	04/14/21 11:58	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.5	16.7	04/14/21 11:58	
Naphthalene	ug/kg	<1.6	16.7	04/14/21 11:58	
Phenanthrene	ug/kg	<1.9	16.7	04/14/21 11:58	
Pyrene	ug/kg	<2.5	16.7	04/14/21 11:58	
2-Fluorobiphenyl (S)	%	65	36-86	04/14/21 11:58	
Terphenyl-d14 (S)	%	95	41-97	04/14/21 11:58	

LABORATORY CONTROL SAMPLE: 2205463

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	259	78	53-100	
2-Methylnaphthalene	ug/kg	333	257	77	51-97	
Acenaphthene	ug/kg	333	236	71	62-120	
Acenaphthylene	ug/kg	333	241	72	61-120	
Anthracene	ug/kg	333	271	81	62-111	
Benzo(a)anthracene	ug/kg	333	259	78	61-120	
Benzo(a)pyrene	ug/kg	333	270	81	65-120	
Benzo(b)fluoranthene	ug/kg	333	260	78	64-108	
Benzo(g,h,i)perylene	ug/kg	333	257	77	71-120	
Benzo(k)fluoranthene	ug/kg	333	255	76	76-120	
Chrysene	ug/kg	333	242	73	74-120	L2
Dibenz(a,h)anthracene	ug/kg	333	257	77	71-120	
Fluoranthene	ug/kg	333	275	83	67-112	
Fluorene	ug/kg	333	269	81	65-120	
Indeno(1,2,3-cd)pyrene	ug/kg	333	270	81	74-120	

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QUALITY CONTROL DATA

Project: #2 BELOW
Pace Project No.: 40224474

LABORATORY CONTROL SAMPLE: 2205463

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	333	226	68	53-120	
Phenanthrene	ug/kg	333	262	79	67-120	
Pyrene	ug/kg	333	281	84	60-103	
2-Fluorobiphenyl (S)	%			71	36-86	
Terphenyl-d14 (S)	%			83	41-97	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2205464 2205465

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224771003 Result	Spike Conc.	Spike Conc.	MS Result						
1-Methylnaphthalene	ug/kg	<2.6	352	352	229	207	65	58	41-100	10	29
2-Methylnaphthalene	ug/kg	<2.6	352	352	230	200	65	56	42-97	14	21
Acenaphthene	ug/kg	<2.3	352	352	210	190	60	54	43-120	10	27
Acenaphthylene	ug/kg	<2.2	352	352	212	191	60	54	51-120	10	26
Anthracene	ug/kg	<2.2	352	352	214	225	60	64	46-111	5	29
Benzo(a)anthracene	ug/kg	6.9J	352	352	217	247	60	68	48-120	13	23
Benzo(a)pyrene	ug/kg	8.3J	352	352	233	263	64	72	46-108	12	30
Benzo(b)fluoranthene	ug/kg	11.8J	352	352	291	298	79	81	45-108	2	30
Benzo(g,h,i)perylene	ug/kg	13.5J	352	352	213	454	57	125	39-120	72	37 M1,R1
Benzo(k)fluoranthene	ug/kg	4.8J	352	352	264	200	74	56	47-120	27	31
Chrysene	ug/kg	10.5J	352	352	222	278	60	76	54-120	22	21 R1
Dibenz(a,h)anthracene	ug/kg	<2.4	352	352	204	222	57	63	46-120	8	34
Fluoranthene	ug/kg	17.6J	352	352	249	296	66	79	53-112	17	27
Fluorene	ug/kg	<2.1	352	352	213	188	61	53	48-120	13	29
Indeno(1,2,3-cd)pyrene	ug/kg	6.9J	352	352	217	415	60	116	40-120	63	34 R1
Naphthalene	ug/kg	<1.7	352	352	211	195	60	55	47-120	8	25
Phenanthrene	ug/kg	13.8J	352	352	234	237	62	63	49-120	1	28
Pyrene	ug/kg	15.4J	352	352	214	236	56	63	43-103	10	31
2-Fluorobiphenyl (S)	%						60	54	36-86		
Terphenyl-d14 (S)	%						54	45	41-97		

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QUALITY CONTROL DATA

Project: #2 BELOW

Pace Project No.: 40224474

QC Batch: 381548

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224474001

SAMPLE DUPLICATE: 2200632

Parameter	Units	40224456016 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.3	12.7	4	10	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: #2 BELOW
Pace Project No.: 40224474

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 - Estimated concentration at or above the LOD and below the LOQ.

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.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

- L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- R1 RPD value was outside control limits.
- S0 Surrogate recovery outside laboratory control limits.
- S4 Surrogate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: #2 BELOW
Pace Project No.: 40224474

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40224474001	#2 BELOW	EPA 3541	381655	EPA 8082	381671
40224474001	#2 BELOW	EPA 3050	381497	EPA 6010	381704
40224474001	#2 BELOW	EPA 7471	382313	EPA 7471	382422
40224474001	#2 BELOW	EPA 3546	382393	EPA 8270E by SIM	382442
40224474001	#2 BELOW	EPA 5035/5030B	382037	EPA 8260	382038
40224474001	#2 BELOW	ASTM D2974-87	381548		

REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name: Marinette Marine
 Branch/Location: Marinette
 Project Contact: Makayla Jacobs
 Phone: 715-245-1931
 Project Number:
 Project Name: #2 below
 Project State: WI
 Sampled By (Print): Warren / Makayla
 Sampled By (Sign): [Signature]
 PO #:



UPPER MIDWEST REGION
 MN: 612-607-1700 WI: 920-469-2436

40224474

CHAIN OF CUSTODY

***Preservation Codes**
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?
(YES/NO)
 PRESERVATION
(CODE)*

Y/N	Pick Letter	Analyses Requested																
		X	X	X	X	X												

Quote #:
 Mail To Contact:
 Mail To Company:
 Mail To Address:
 Invoice To Contact:
 Invoice To Company:
 Invoice To Address:
 Invoice To Phone:
 CLIENT COMMENTS
 LAB COMMENTS (Lab Use Only)
 Profile #

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Biota DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Waste Water
 Sl = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	#2 below	4-1-21	9:30	S

Rush Turnaround Time Requested - Prelims
 (Rush TAT subject to approval/surcharge)
 Date Needed:
 Transmit Prelim Rush Results by (complete what you want):
 Email #1:
 Email #2:
 Telephone:
 Fax:
 Samples on HOLD are subject to special pricing and release of liability

Relinquished By: Makayla Jacobs Date/Time: 4-2-21 8:50am
 Relinquished By: JDS Date/Time: 4/3/21 1035
 Relinquished By: Date/Time:
 Relinquished By: Date/Time:

Received By: [Signature] Date/Time: 4/3/21 1035
 Received By: Date/Time:
 Received By: Date/Time:
 Received By: Date/Time:

PACE Project No. 40224474
 Receipt Temp = 2.5 °C
 Sample Receipt pH OK / Adjusted
 Cooler Custody Seal Present / Not Present Intact / Not Intact

Sample Preservation Receipt Form

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

Client Name: Marinette Marine

Project # U0224474

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

Initial when completed:

Date/Time:

Lab Lot# of pH paper:

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

Pace Lab #	Glass							Plastic					Vials					Jars				General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)				
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JG9U	JG9U	WGFU	WPFU	SP5T	ZPLC								GN			
001																																			2.5 / 5 / 10
002																																			2.5 / 5 / 10
003																																			2.5 / 5 / 10
004																																			2.5 / 5 / 10
005																																			2.5 / 5 / 10
006																																			2.5 / 5 / 10
007																																			2.5 / 5 / 10
008																																			2.5 / 5 / 10
009																																			2.5 / 5 / 10
010																																			2.5 / 5 / 10
011																																			2.5 / 5 / 10
012																																			2.5 / 5 / 10
013																																			2.5 / 5 / 10
014																																			2.5 / 5 / 10
015																																			2.5 / 5 / 10
016																																			2.5 / 5 / 10
017																																			2.5 / 5 / 10
018																																			2.5 / 5 / 10
019																																			2.5 / 5 / 10
020																																			2.5 / 5 / 10

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	BP1U	1 liter plastic unpres	VG9A	40 mL clear ascorbic	JGFU	4 oz amber jar unpres
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG5U	100 mL amber glass unpres			VG9D	40 mL clear vial DI	ZPLC	ziploc bag
AG2S	500 mL amber glass H2SO4					GN	
BG3U	250 mL clear glass unpres						

Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name: Marinette Marine

WO#: 40224474

40224474

Courier: CS Logistics Fed Ex Speedee UPS Walco
 Client Pace Other: _____

Tracking #: 12 578 899 44 6652 2545

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 - 90 Type of Ice: Wet Blue Dry None

Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 3 /ICorr: 2.5

Temp Blank Present: yes no

Biological Tissue is Frozen: yes no

Person examining contents:
Date: 4/3/21 /Initials: LF
Labeled By Initials: [Signature]

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

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>pv #, mail, invoice, pg#</u> <u>4/3/21</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		<u>Ink smeared off, half legible</u> <u>4/3/21</u>
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

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 logir



Report of Analysis

Pace Analytical Services, LLC
1241 Bellevue Street
Suite 9
Green Bay, WI 54302
Attention: Brian Basten

Project Name: #2 BELOW
Project Number: 40224474
Lot Number: **WD06014**
Date Completed: 04/15/2021

Karen Coonan

04/15/2021 9:08 PM
Approved and released by:
Project Manager II: **Karen L. Coonan**



The electronic signature above is the equivalent of a handwritten signature.
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PACE ANALYTICAL SERVICES, LLC

SC DHEC No: 32010001

NELAC No: E87653

NC DENR No: 329

NC Field Parameters No: 5639

Case Narrative Pace Analytical Services, LLC Lot Number: WD06014

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

Where applicable, all soil sample results (including LOQ and DL if requested) are corrected for dry weight unless flagged with a "W" qualifier.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

In the Matrix Spike and Matrix Spike Duplicate (MS/MSD) associated with sample -001, some analytes recovered outside of the acceptance limits. The Laboratory Control Spike (LCS) recovered within the required acceptance limits; therefore, this demonstrates a matrix effect and data quality is not impacted.

PACE ANALYTICAL SERVICES, LLC

Sample Summary
Pace Analytical Services, LLC
Lot Number: WD06014
Project Name: #2 BELOW
Project Number: 40224474

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	#2 BELOW	Solid	04/01/2021 0930	04/06/2021

(1 sample)

PACE ANALYTICAL SERVICES, LLC

Detection Summary
Pace Analytical Services, LLC
Lot Number: WD06014
Project Name: #2 BELOW
Project Number: 40224474

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	#2 BELOW	Solid	8:2 FTS	PFAS by ID	4.2		ug/kg	5
001	#2 BELOW	Solid	6:2 FTS	PFAS by ID	3.0	J	ug/kg	5
001	#2 BELOW	Solid	PFOSA	PFAS by ID	0.54	J	ug/kg	5
001	#2 BELOW	Solid	PFHxS	PFAS by ID	0.42	J	ug/kg	5
001	#2 BELOW	Solid	PFBA	PFAS by ID	0.41	J	ug/kg	5
001	#2 BELOW	Solid	PFHpA	PFAS by ID	0.55	J	ug/kg	5
001	#2 BELOW	Solid	PFHxA	PFAS by ID	0.55	J	ug/kg	5
001	#2 BELOW	Solid	PFNA	PFAS by ID	16		ug/kg	5
001	#2 BELOW	Solid	PFOA	PFAS by ID	1.9		ug/kg	6
001	#2 BELOW	Solid	PFPeA	PFAS by ID	0.70	J	ug/kg	6
001	#2 BELOW	Solid	PFTTrDA	PFAS by ID	0.69	J	ug/kg	6
001	#2 BELOW	Solid	PFUdA	PFAS by ID	3.6		ug/kg	6
001	#2 BELOW	Solid	PFOS	PFAS by ID	5.0		ug/kg	6

(13 detections)

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC**

Laboratory ID: **WD06014-001**

Description: **#2 BELOW**

Matrix: **Solid**

Date Sampled: **04/01/2021 0930**

Project Name: **#2 BELOW**

% Solids: **61.2 04/06/2021 2311**

Date Received: **04/06/2021**

Project Number: **40224474**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	SOP SPE	PFAS by ID SOP	1	04/09/2021 1513	JJG	04/07/2021 1150	88226

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		3.2	0.81	ug/kg	2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3...)	763051-92-9	PFAS by ID SOP	ND		3.2	0.81	ug/kg	2
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	4.2		3.2	0.81	ug/kg	2
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	3.0	J	3.2	0.81	ug/kg	2
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		3.2	0.81	ug/kg	2
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		6.5	1.6	ug/kg	2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		3.2	0.81	ug/kg	2
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		3.2	0.81	ug/kg	2
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		3.2	0.81	ug/kg	2
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		3.2	0.81	ug/kg	2
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		3.2	0.81	ug/kg	2
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		3.2	0.81	ug/kg	2
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		3.2	0.81	ug/kg	2
Perfluoro-1-butanefluoronic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		1.6	0.32	ug/kg	2
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		1.6	0.32	ug/kg	2
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		1.6	0.32	ug/kg	2
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		1.6	0.32	ug/kg	2
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	0.54	J	1.6	0.32	ug/kg	2
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		1.6	0.32	ug/kg	2
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		1.6	0.32	ug/kg	2
Perfluorohexanesulfonic acid (PFHxS)	355-46-4	PFAS by ID SOP	0.42	J	1.6	0.32	ug/kg	2
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	0.41	J	1.6	0.32	ug/kg	2
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		1.6	0.32	ug/kg	2
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		1.6	0.32	ug/kg	2
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	0.55	J	1.6	0.32	ug/kg	2
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	0.55	J	1.6	0.32	ug/kg	2
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	16		1.6	0.32	ug/kg	2
Perfluoro-n-octanoic acid (PFOA)	335-67-1	PFAS by ID SOP	1.9		1.6	0.32	ug/kg	2
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	0.70	J	1.6	0.32	ug/kg	2
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		1.6	0.32	ug/kg	2
Perfluoro-n-tridecanoic acid (PFTTrDA)	72629-94-8	PFAS by ID SOP	0.69	J	1.6	0.32	ug/kg	2
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	3.6		1.6	0.32	ug/kg	2
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	PFAS by ID SOP	5.0		1.6	0.32	ug/kg	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
13C2_4:2FTS		127	25-150
13C2_6:2FTS		98	25-150
13C2_8:2FTS		137	25-150
13C2_PFDaA		121	25-150
13C2_PFTeDA		103	25-150
13C3_PFBS		86	25-150
13C3_PFHxS		104	25-150
13C3-HFPO-DA		92	25-150
13C4_PFBA		98	25-150

LOQ = Limit of Quantitation B = Detected in the method blank E = Quantitation of compound exceeded the calibration range DL = Detection Limit Q = Surrogate failure
 ND = Not detected at or above the DL N = Recovery is out of criteria P = The RPD between two GC columns exceeds 40% J = Estimated result < LOQ and ≥ DL L = LCS/LCSD failure
 H = Out of holding time W = Reported on wet weight basis S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PFAS by LC/MS/MS

Client: Pace Analytical Services, LLC	Laboratory ID: WD06014-001
Description: #2 BELOW	Matrix: Solid
Date Sampled: 04/01/2021 0930	Project Name: #2 BELOW
Date Received: 04/06/2021	Project Number: 40224474
	% Solids: 61.2 04/06/2021 2311

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
13C4_PFHpA		100	25-150
13C5_PFHxA		105	25-150
13C5_PFPeA		96	25-150
13C6_PFDA		108	25-150
13C7_PFUdA		106	25-150
13C8_PFOA		100	25-150
13C8_PFOS		103	25-150
13C8_PFOSA		103	10-150
13C9_PFNA		109	25-150
d-EtFOSA		115	10-150
d5-EtFOSAA		122	25-150
d9-EtFOSE		109	10-150
d-MeFOSA		108	10-150
d3-MeFOSAA		114	25-150
d7-MeFOSE		97	10-150

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: WQ88226-001

Matrix: Solid

Batch: 88226

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 04/07/2021 1150

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
9CI-PF3ONS	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
11CI-PF3OUdS	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
8:2 FTS	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
6:2 FTS	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
4:2 FTS	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
GenX	ND		1	4.0	1.0	ug/kg	04/08/2021 1639
ADONA	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
EtFOSA	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
EtFOSAA	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
EtFOSE	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
MeFOSA	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
MeFOSAA	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
MeFOSE	ND		1	2.0	0.50	ug/kg	04/08/2021 1639
PFBS	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFDS	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFHpS	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFNS	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFOSA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFPeS	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFDOS	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFHxS	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFBA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFDA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFDaA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFHpA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFHxA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFNA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFOA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFPeA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFTeDA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFTTrDA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFUdA	ND		1	1.0	0.20	ug/kg	04/08/2021 1639
PFOS	ND		1	1.0	0.20	ug/kg	04/08/2021 1639

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		102	25-150
13C2_6:2FTS		94	25-150
13C2_8:2FTS		99	25-150
13C2_PFDaA		104	25-150
13C2_PFTeDA		101	25-150
13C3_PFBs		77	25-150
13C3_PFHxS		90	25-150
13C3-HFPO-DA		88	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MB

Sample ID: WQ88226-001

Matrix: Solid

Batch: 88226

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 04/07/2021 1150

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBFA		91	25-150
13C4_PFHpA		96	25-150
13C5_PFHxA		98	25-150
13C5_PFPeA		94	25-150
13C6_PFDA		98	25-150
13C7_PFUdA		101	25-150
13C8_PFOA		91	25-150
13C8_PFOS		93	25-150
13C8_PFOSA		88	10-150
13C9_PFNA		96	25-150
d-EtFOSA		134	10-150
d5-EtFOSAA		99	25-150
d9-EtFOSE		102	10-150
d-MeFOSA		95	10-150
d3-MeFOSAA		91	25-150
d7-MeFOSE		105	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ88226-002

Matrix: Solid

Batch: 88226

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 04/07/2021 1150

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
9CI-PF3ONS	1.9	1.8		1	95	50-150	04/08/2021 1650
11CI-PF3OUdS	1.9	1.7		1	89	50-150	04/08/2021 1650
8:2 FTS	1.9	2.2		1	116	50-150	04/08/2021 1650
6:2 FTS	1.9	1.6		1	86	50-150	04/08/2021 1650
4:2 FTS	1.9	1.9		1	101	50-150	04/08/2021 1650
GenX	4.0	3.9		1	99	50-150	04/08/2021 1650
ADONA	1.9	1.6		1	87	50-150	04/08/2021 1650
EtFOSA	2.0	1.8		1	88	50-150	04/08/2021 1650
EtFOSAA	2.0	1.8		1	90	50-150	04/08/2021 1650
EtFOSE	2.0	1.8		1	88	50-150	04/08/2021 1650
MeFOSA	2.0	1.7		1	85	50-150	04/08/2021 1650
MeFOSAA	2.0	1.6		1	79	50-150	04/08/2021 1650
MeFOSE	2.0	2.0		1	101	50-150	04/08/2021 1650
PFBS	1.8	1.8		1	104	50-150	04/08/2021 1650
PFDS	1.9	1.9		1	97	50-150	04/08/2021 1650
PFHpS	1.9	1.8		1	96	50-150	04/08/2021 1650
PFNS	1.9	1.8		1	92	50-150	04/08/2021 1650
PFOSA	2.0	1.9		1	97	50-150	04/08/2021 1650
PFPeS	1.9	2.0		1	109	50-150	04/08/2021 1650
PFDOS	1.9	2.0		1	105	50-150	04/08/2021 1650
PFHxS	1.8	1.8		1	101	50-150	04/08/2021 1650
PFBA	2.0	1.9		1	95	50-150	04/08/2021 1650
PFDA	2.0	1.8		1	90	50-150	04/08/2021 1650
PFDoA	2.0	1.9		1	96	50-150	04/08/2021 1650
PFHpA	2.0	1.8		1	88	50-150	04/08/2021 1650
PFHxA	2.0	1.9		1	95	50-150	04/08/2021 1650
PFNA	2.0	1.9		1	94	50-150	04/08/2021 1650
PFOA	2.0	2.1		1	103	50-150	04/08/2021 1650
PFPeA	2.0	1.7		1	86	50-150	04/08/2021 1650
PFTeDA	2.0	1.8		1	91	50-150	04/08/2021 1650
PFTTrDA	2.0	2.2		1	108	50-150	04/08/2021 1650
PFUdA	2.0	2.0		1	99	50-150	04/08/2021 1650
PFOS	1.9	1.7		1	92	50-150	04/08/2021 1650

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		88	25-150
13C2_6:2FTS		92	25-150
13C2_8:2FTS		96	25-150
13C2_PFDoA		98	25-150
13C2_PFTeDA		98	25-150
13C3_PFBs		76	25-150
13C3_PFHxS		91	25-150
13C3-HFPO-DA		87	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - LCS

Sample ID: WQ88226-002

Matrix: Solid

Batch: 88226

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 04/07/2021 1150

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBAs		90	25-150
13C4_PFHpA		95	25-150
13C5_PFHxA		91	25-150
13C5_PFPeA		95	25-150
13C6_PFDA		95	25-150
13C7_PFUdA		99	25-150
13C8_PFOA		93	25-150
13C8_PFOS		87	25-150
13C8_PFOSA		85	10-150
13C9_PFNA		90	25-150
d-EtFOSA		127	10-150
d5-EtFOSAA		96	25-150
d9-EtFOSE		95	10-150
d-MeFOSA		99	10-150
d3-MeFOSAA		95	25-150
d7-MeFOSE		100	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MS

Sample ID: WD06014-001MS

Matrix: Solid

Batch: 88226

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 04/07/2021 1150

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
9CI-PF3ONS	ND	2.9	2.7		1	92	50-150	04/08/2021 1847
11CI-PF3OUdS	ND	3.0	2.7		1	92	50-150	04/08/2021 1847
8:2 FTS	4.3	3.0	6.5		1	75	50-150	04/08/2021 1847
6:2 FTS	2.2	3.0	3.5	N	1	43	50-150	04/08/2021 1847
4:2 FTS	ND	2.9	3.0		1	102	50-150	04/08/2021 1847
GenX	ND	6.3	5.9		1	93	50-150	04/08/2021 1847
ADONA	ND	3.0	2.6		1	89	50-150	04/08/2021 1847
EtFOSA	ND	3.1	2.4		1	76	50-150	04/08/2021 1847
EtFOSAA	ND	3.1	3.8		1	121	50-150	04/08/2021 1847
EtFOSE	ND	3.1	3.5		1	110	50-150	04/08/2021 1847
MeFOSA	ND	3.1	2.6		1	84	50-150	04/08/2021 1847
MeFOSAA	ND	3.1	2.6		1	83	50-150	04/08/2021 1847
MeFOSE	ND	3.1	2.9		1	93	50-150	04/08/2021 1847
PFBS	ND	2.8	3.1		1	110	50-150	04/08/2021 1847
PFDS	ND	3.0	3.0		1	98	50-150	04/08/2021 1847
PFHpS	ND	3.0	2.7		1	91	50-150	04/08/2021 1847
PFNS	ND	3.0	2.7		1	89	50-150	04/08/2021 1847
PFOSA	0.59	3.1	3.3		1	85	50-150	04/08/2021 1847
PFPeS	ND	2.9	3.5		1	119	50-150	04/08/2021 1847
PFDOS	ND	3.0	2.6		1	87	50-150	04/08/2021 1847
PFHxS	0.57	2.9	3.5		1	102	50-150	04/08/2021 1847
PFBA	0.49	3.1	3.3		1	88	50-150	04/08/2021 1847
PFDA	ND	3.1	3.1		1	98	50-150	04/08/2021 1847
PFDaA	ND	3.1	3.3		1	104	50-150	04/08/2021 1847
PFHpA	0.50	3.1	3.3		1	88	50-150	04/08/2021 1847
PFHxA	0.81	3.1	3.7		1	92	50-150	04/08/2021 1847
PFNA	17	3.1	18	N	1	40	50-150	04/08/2021 1847
PFOA	2.0	3.1	5.0		1	94	50-150	04/08/2021 1847
PFPeA	0.78	3.1	3.5		1	87	50-150	04/08/2021 1847
PFTeDA	ND	3.1	2.8		1	89	50-150	04/08/2021 1847
PFTTrDA	0.75	3.1	3.7		1	93	50-150	04/08/2021 1847
PFUdA	3.4	3.1	4.9	N	1	46	50-150	04/08/2021 1847
PFOS	4.8	2.9	6.3		1	53	50-150	04/08/2021 1847

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		97	25-150
13C2_6:2FTS		93	25-150
13C2_8:2FTS		123	25-150
13C2_PFDaA		119	25-150
13C2_PFTeDA		104	25-150
13C3_PFBS		83	25-150
13C3_PFHxS		95	25-150
13C3-HFPO-DA		84	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MS

Sample ID: WD06014-001MS

Matrix: Solid

Batch: 88226

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 04/07/2021 1150

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBA		92	25-150
13C4_PFHpA		96	25-150
13C5_PFHxA		91	25-150
13C5_PFPeA		93	25-150
13C6_PFDA		103	25-150
13C7_PFUdA		111	25-150
13C8_PFOA		89	25-150
13C8_PFOS		96	25-150
13C8_PFOSA		89	10-150
13C9_PFNA		96	25-150
d-EtFOSA		115	10-150
d5-EtFOSAA		113	25-150
d9-EtFOSE		85	10-150
d-MeFOSA		94	10-150
d3-MeFOSAA		102	25-150
d7-MeFOSE		95	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MSD

Sample ID: WD06014-001MD

Matrix: Solid

Batch: 88226

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 04/07/2021 1150

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
9CI-PF3ONS	ND	2.9	2.3		1	79	16	50-150	30	04/08/2021 1857
11CI-PF3OUdS	ND	3.0	2.4		1	81	13	50-150	30	04/08/2021 1857
8:2 FTS	4.3	3.0	7.2		1	98	10	50-150	30	04/08/2021 1857
6:2 FTS	2.2	3.0	7.1	N,+	1	164	68	50-150	30	04/08/2021 1857
4:2 FTS	ND	2.9	2.5		1	84	19	50-150	30	04/08/2021 1857
GenX	ND	6.3	5.8		1	92	1.7	50-150	30	04/08/2021 1857
ADONA	ND	3.0	2.5		1	84	5.7	50-150	30	04/08/2021 1857
EtFOSA	ND	3.1	2.3		1	75	2.0	50-150	30	04/08/2021 1857
EtFOSAA	ND	3.1	3.4		1	107	12	50-150	30	04/08/2021 1857
EtFOSE	ND	3.1	2.1	+	1	66	51	50-150	30	04/08/2021 1857
MeFOSA	ND	3.1	2.1		1	66	25	50-150	30	04/08/2021 1857
MeFOSAA	ND	3.1	2.7		1	88	5.4	50-150	30	04/08/2021 1857
MeFOSE	ND	3.1	3.2		1	102	8.8	50-150	30	04/08/2021 1857
PFBS	ND	2.8	2.7		1	97	13	50-150	30	04/08/2021 1857
PFDS	ND	3.0	2.3		1	77	24	50-150	30	04/08/2021 1857
PFHpS	ND	3.0	2.5		1	84	8.3	50-150	30	04/08/2021 1857
PFNS	ND	3.0	2.9		1	97	8.7	50-150	30	04/08/2021 1857
PFOSA	0.59	3.1	3.3		1	86	0.77	50-150	30	04/08/2021 1857
PFPeS	ND	2.9	2.9		1	99	19	50-150	30	04/08/2021 1857
PFDOS	ND	3.0	2.3		1	77	12	50-150	30	04/08/2021 1857
PFHxS	0.57	2.9	3.2		1	91	9.0	50-150	30	04/08/2021 1857
PFBA	0.49	3.1	3.4		1	92	3.6	50-150	30	04/08/2021 1857
PFDA	ND	3.1	3.3		1	106	7.3	50-150	30	04/08/2021 1857
PFDaA	ND	3.1	2.9		1	93	11	50-150	30	04/08/2021 1857
PFHpA	0.50	3.1	3.4		1	92	4.6	50-150	30	04/08/2021 1857
PFHxA	0.81	3.1	3.6		1	89	2.7	50-150	30	04/08/2021 1857
PFNA	17	3.1	20		1	118	13	50-150	30	04/08/2021 1857
PFOA	2.0	3.1	4.7		1	84	6.4	50-150	30	04/08/2021 1857
PFPeA	0.78	3.1	3.5		1	88	0.81	50-150	30	04/08/2021 1857
PFTeDA	ND	3.1	2.6		1	83	6.2	50-150	30	04/08/2021 1857
PFTTrDA	0.75	3.1	4.1		1	106	11	50-150	30	04/08/2021 1857
PFUdA	3.4	3.1	6.2		1	88	24	50-150	30	04/08/2021 1857
PFOS	4.8	2.9	7.5		1	92	17	50-150	30	04/08/2021 1857

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		109	25-150
13C2_6:2FTS		103	25-150
13C2_8:2FTS		145	25-150
13C2_PFDaA		119	25-150
13C2_PFTeDA		109	25-150
13C3_PFBs		84	25-150
13C3_PFHxS		95	25-150
13C3-HFPO-DA		85	25-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

PFAS by LC/MS/MS - MSD

Sample ID: WD06014-001MD

Matrix: Solid

Batch: 88226

Prep Method: SOP SPE

Analytical Method: PFAS by ID SOP

Prep Date: 04/07/2021 1150

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBFA		92	25-150
13C4_PFHpA		97	25-150
13C5_PFHxA		95	25-150
13C5_PFPeA		94	25-150
13C6_PFDA		106	25-150
13C7_PFUdA		114	25-150
13C8_PFOA		89	25-150
13C8_PFOS		100	25-150
13C8_PFOSA		96	10-150
13C9_PFNA		98	25-150
d-EtFOSA		128	10-150
d5-EtFOSAA		123	25-150
d9-EtFOSE		89	10-150
d-MeFOSA		102	10-150
d3-MeFOSAA		105	25-150
d7-MeFOSE		96	10-150

LOQ = Limit of Quantitation

ND = Not detected at or above the DL

N = Recovery is out of criteria

DL = Detection Limit

J = Estimated result < LOQ and ≥ DL

P = The RPD between two GC columns exceeds 40%

* = RSD is out of criteria

+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

**Chain of Custody
and
Miscellaneous Documents**



Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: WI
 Cert. Needed: Yes No

Owner Received Date: 4/3/2021 Results Requested By: 4/19/2021

Workorder: 40224474 Workorder Name: #2 BELOW

Report To: **Subcontract To:**
 Brian Basten
 Pace Analytical Green Bay
 1241 Bellevue Street
 Suite B
 Green Bay, WI 54302
 Phone (920)469-2436

Pace Analytical West Columbia
 106 Vantage Point Drive
 West Columbia, SC 29172
 Phone (803)791-9700



WD06014

KLC2

LAB USE ONLY

Line	Sample ID	Sample Type	Collection Date/Time	Lab ID	Matrix	Preserved / Container	WT	PFAS
1	#2 BELOW	PS	4/11/2021 08:30	40224474001	Solid	1		X
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	<i>allis</i>	4/5/21 1600		
2				
3	<i>URS</i>	4/10/21 947	<i>Chris Goodwin</i>	4/10/21 947

Cooler Temperature on Receipt: 10 °C Custody Seal: or N Received on Ice: or N Samples Intact: or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
 This chain of custody is considered complete as is since this information is available in the owner laboratory.

40224474



CHAIN OF CUSTODY

Preservation Codes
 A=None B=HCl C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=500 um Bouffale Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)

Company Name: Marinette Marine
 Branch/Location: Marinette
 Project Contact: Makayla Jacobs
 Phone: 715-245-1931
 Project Number:
 Project Name: #2 below
 Project State: WI
 Sampled By (Print): Waste/Makayla
 Sampled By (Sign): [Signature]

FILTERED?
(YES/NO)
 PRESERVATION
(CODE)*

Analysis Requested	Matrix Codes				
	P	VOC	Metals	PAHs	PCBS
	X	X	X	X	X

PO #: _____ Regulatory Program: _____

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Bats DW = Drinking Water
 C = Charcoal GW = Ground Water
 CI = Oil SW = Surface Water
 S = Soil WW = Waste Water
 SI = Sludge WP = Wfeg

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	#2 below	4-21	9:30	S

Quote #:
 Mail To Contact:
 Mail To Company:
 Mail To Address:
 Invoice To Contact:
 Invoice To Company:
 Invoice To Address:
 Invoice To Phone:

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
-----------------	-----------------------------	-----------

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: _____

Transmit Prelim Rush Results by (complete what you want):
 Email #1: _____
 Email #2: _____
 Telephone: _____
 Fax: _____


Samples on HOLD are subject to special pricing and release of liability

Relinquished By: <u>Makayla Jacobs</u>	Date/Time: <u>4-2-21 8:50am</u>	Received By: <u>[Signature]</u>	Date/Time: _____
Relinquished By: <u>UPS</u>	Date/Time: <u>4/3/21 10:35</u>	Received By: <u>[Signature]</u>	Date/Time: <u>4/3/21 10:35</u>
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____


FACE Project No. 40224474
 Receipt Temp = 2.5 °C
 Sample Receipt pH OK / Adjusted
 Cooler Custody Seal Present / Not Present
 Intact / Not Intact [Signature]

PACE ANALYTICAL SERVICES, LLC

PACE ANALYTICAL SERVICES, LLC

 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
	Document No.: ENV-FRM-GBAY-0014-Rev.00	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Marquette Marine Project #:
WO# : 40224474

 40224474

Courier: CS Logistics Fed Ex Speedee UPS Walco
 Client Pace Other: _____

Tracking #: 12 578 899 44 6652 2545

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 - 90 **Type of Ice:** Wet Blue Dry None Samples on ice, cooling process has begun
Cooler Temperature: Uncorr: 3 /Corr: 2.5
Temp Blank Present: yes no **Biological Tissue is Frozen:** yes no
 Temp should be above freezing to 3°C.
 Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.


Person examining contents:
Date: <u>4/3/14</u> Initials: <u>LF</u>
Labeled By Initials: _____

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>PK #, mail, Invoice, pg#</u> <u>4/3/14</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time: _____
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		<u>Ink. Smearred off, half legible</u>
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13. <u>4/3/14</u>
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____		

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 logir

 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
	Document No.: ENV-FRM-GBAY-0014-Rev.00	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Marinette Marine Project #: WO# : 40224476

Courier: CS Logistics Fed Ex Speedee UPS Walco
 Client Pace Other: _____

Tracking #: 17 578 899 44 6665 4855



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 - 90 Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 5 / Corr: 4.5

Temp Blank Present: yes no Biological Tissue is Frozen: yes no

Person examining contents:
Date: 4/3/21 / Initials: [Signature]
Labeled By Initials: _____

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

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>BY NAME, MAIL, INVOICE, pg #</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <u>4/3/21</u>
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		<u>Ink smeared off half legible</u>
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13. <u>4/3/21</u>
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<u>HP</u>
Pace Trip Blank Lot # (if purchased):		

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 logir



Sample Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised: 9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: PACE Cooler/Inspected by/date: JRG/2 4/16/21 Lot #: WD060014

Means of receipt: Pace Client UPS FedEx Other: _____

Yes No 1. Were custody seals present on the cooler?
 Yes No NA 2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA
Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: 21-443
1.0 / 1.0 NA °C NA °C NA °C
Method: Temperature Blank Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C
Method of coolant: Wet Ice Ice Packs Dry Ice None

Yes No NA 3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified?
PM was Notified by: phone / email / face-to-face (circle one).

Yes No NA 4. Is the commercial courier's packing slip attached to this form?

Yes No 5. Were proper custody procedures (relinquished/received) followed?

Yes No 6. Were sample IDs listed on the COC?

Yes No 7. Were sample IDs listed on all sample containers?

Yes No 8. Was collection date & time listed on the COC?

Yes No 9. Was collection date & time listed on all sample containers?

Yes No 10. Did all container label information (ID, date, time) agree with the COC?

Yes No 11. Were tests to be performed listed on the COC?

Yes No 12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?

Yes No 13. Was adequate sample volume available?

Yes No 14. Were all samples received within 1/2 the holding time or 48 hours, whichever comes first?

Yes No 15. Were any samples missing/excess (circle one) samples Not listed on COC?

Yes No NA 16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (1/8" or 6mm in diameter) in any of the VOA vials?

Yes No NA 17. Were all DRO/metals/nutrient samples received at a pH of < 2?

Yes No NA 18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?

Yes No NA 19. Were all applicable NH₄/TKN/cyanide/phenol/625.1/608.3 (< 0.5 mg/L) samples free of residual chlorine?

Yes No NA 20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?

Yes No 21. Was the quote number listed on the container label? If yes, Quote #

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (if #19 is no) and were adjusted accordingly in sample receiving with sodium thiosulfate (Na₂S₂O₃) with Shealy ID: NA.

SR barcode labels applied by: JRG/2 Date: 4/16/21

Comments:

April 15, 2021

Makayla Jacobs
Fincantieri Marinette Marine
1600 Ely Street
Marinette, WI 54143

RE: Project: #4 ABOVE
Pace Project No.: 40224475

Dear Makayla Jacobs:

Enclosed are the analytical results for sample(s) received by the laboratory on April 03, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Green Bay

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

Sincerely,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: #4 ABOVE

Pace Project No.: 40224475

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

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: #4 ABOVE

Pace Project No.: 40224475

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40224475001	#4 ABOVE	Solid	04/01/21 09:15	04/03/21 10:35

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: #4 ABOVE

Pace Project No.: 40224475

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40224475001	#4 ABOVE	EPA 8082	BLM	10
		EPA 6010	TXW	7
		EPA 7471	AJT	1
		EPA 8270E by SIM	JJB	20
		EPA 8260	MDS	64
		ASTM D2974-87	AH	1

PASI-G = Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: #4 ABOVE
Pace Project No.: 40224475

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
40224475001	#4 ABOVE					
EPA 8082	PCB-1242 (Aroclor 1242)	33.0J	ug/kg	54.0	04/10/21 17:12	
EPA 8082	PCB-1254 (Aroclor 1254)	25.5J	ug/kg	54.0	04/10/21 17:12	
EPA 8082	PCB, Total	58.5	ug/kg	54.0	04/10/21 17:12	
EPA 6010	Arsenic	1.7J	mg/kg	2.6	04/07/21 13:31	
EPA 6010	Barium	30.4	mg/kg	0.52	04/07/21 13:31	
EPA 6010	Cadmium	0.20J	mg/kg	0.52	04/07/21 13:31	
EPA 6010	Chromium	7.8	mg/kg	1.0	04/07/21 13:31	
EPA 6010	Lead	38.4	mg/kg	2.1	04/07/21 13:31	
EPA 7471	Mercury	0.086	mg/kg	0.037	04/14/21 12:04	
EPA 8270E by SIM	Acenaphthylene	54.8J	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Anthracene	48.6J	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Benzo(a)anthracene	225	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Benzo(a)pyrene	240	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Benzo(b)fluoranthene	270	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Benzo(g,h,i)perylene	260	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Benzo(k)fluoranthene	115	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Chrysene	260	ug/kg	72.0	04/14/21 17:42	L2
EPA 8270E by SIM	Dibenz(a,h)anthracene	42.0J	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Fluoranthene	225	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Fluorene	12.4J	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Indeno(1,2,3-cd)pyrene	133	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	1-Methylnaphthalene	63.9J	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	2-Methylnaphthalene	89.1	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Naphthalene	65.1J	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Phenanthrene	105	ug/kg	72.0	04/14/21 17:42	
EPA 8270E by SIM	Pyrene	437	ug/kg	72.0	04/14/21 17:42	
EPA 8260	1,2,4-Trimethylbenzene	69.1	ug/kg	58.0	04/09/21 20:51	
EPA 8260	Benzene	47.7	ug/kg	23.2	04/09/21 20:51	
EPA 8260	Ethylbenzene	17.9J	ug/kg	58.0	04/09/21 20:51	
EPA 8260	Methylene Chloride	38.6J	ug/kg	58.0	04/09/21 20:51	
EPA 8260	Toluene	27.6J	ug/kg	58.0	04/09/21 20:51	
EPA 8260	m&p-Xylene	70.0J	ug/kg	116	04/09/21 20:51	
EPA 8260	o-Xylene	26.7J	ug/kg	58.0	04/09/21 20:51	
EPA 8260	sec-Butylbenzene	18.4J	ug/kg	58.0	04/09/21 20:51	
ASTM D2974-87	Percent Moisture	7.4	%	0.10	04/05/21 14:08	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #4 ABOVE
Pace Project No.: 40224475

Sample: #4 ABOVE **Lab ID: 40224475001** Collected: 04/01/21 09:15 Received: 04/03/21 10:35 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
8082 GCS PCB									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
Pace Analytical Services - Green Bay									
PCB-1016 (Aroclor 1016)	<16.4	ug/kg	54.0	16.4	1	04/06/21 13:31	04/10/21 17:12	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.4	ug/kg	54.0	16.4	1	04/06/21 13:31	04/10/21 17:12	11104-28-2	
PCB-1232 (Aroclor 1232)	<16.4	ug/kg	54.0	16.4	1	04/06/21 13:31	04/10/21 17:12	11141-16-5	
PCB-1242 (Aroclor 1242)	33.0J	ug/kg	54.0	16.4	1	04/06/21 13:31	04/10/21 17:12	53469-21-9	
PCB-1248 (Aroclor 1248)	<16.4	ug/kg	54.0	16.4	1	04/06/21 13:31	04/10/21 17:12	12672-29-6	
PCB-1254 (Aroclor 1254)	25.5J	ug/kg	54.0	16.4	1	04/06/21 13:31	04/10/21 17:12	11097-69-1	
PCB-1260 (Aroclor 1260)	<16.4	ug/kg	54.0	16.4	1	04/06/21 13:31	04/10/21 17:12	11096-82-5	
PCB, Total	58.5	ug/kg	54.0	16.4	1	04/06/21 13:31	04/10/21 17:12	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	80	%	67-102		1	04/06/21 13:31	04/10/21 17:12	877-09-8	
Decachlorobiphenyl (S)	50	%	47-114		1	04/06/21 13:31	04/10/21 17:12	2051-24-3	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Pace Analytical Services - Green Bay									
Arsenic	1.7J	mg/kg	2.6	1.5	1	04/06/21 07:42	04/07/21 13:31	7440-38-2	
Barium	30.4	mg/kg	0.52	0.16	1	04/06/21 07:42	04/07/21 13:31	7440-39-3	
Cadmium	0.20J	mg/kg	0.52	0.14	1	04/06/21 07:42	04/07/21 13:31	7440-43-9	
Chromium	7.8	mg/kg	1.0	0.29	1	04/06/21 07:42	04/07/21 13:31	7440-47-3	
Lead	38.4	mg/kg	2.1	0.63	1	04/06/21 07:42	04/07/21 13:31	7439-92-1	
Selenium	<1.4	mg/kg	4.2	1.4	1	04/06/21 07:42	04/07/21 13:31	7782-49-2	
Silver	<0.32	mg/kg	1.0	0.32	1	04/06/21 07:42	04/07/21 13:31	7440-22-4	
7471 Mercury									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Pace Analytical Services - Green Bay									
Mercury	0.086	mg/kg	0.037	0.011	1	04/14/21 07:31	04/14/21 12:04	7439-97-6	
8270E MSSV PAH by SIM									
Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546									
Pace Analytical Services - Green Bay									
Acenaphthene	<9.3	ug/kg	72.0	9.3	4	04/14/21 08:29	04/14/21 17:42	83-32-9	
Acenaphthylene	54.8J	ug/kg	72.0	9.1	4	04/14/21 08:29	04/14/21 17:42	208-96-8	
Anthracene	48.6J	ug/kg	72.0	8.9	4	04/14/21 08:29	04/14/21 17:42	120-12-7	
Benzo(a)anthracene	225	ug/kg	72.0	9.3	4	04/14/21 08:29	04/14/21 17:42	56-55-3	
Benzo(a)pyrene	240	ug/kg	72.0	8.2	4	04/14/21 08:29	04/14/21 17:42	50-32-8	
Benzo(b)fluoranthene	270	ug/kg	72.0	10.0	4	04/14/21 08:29	04/14/21 17:42	205-99-2	
Benzo(g,h,i)perylene	260	ug/kg	72.0	12.6	4	04/14/21 08:29	04/14/21 17:42	191-24-2	
Benzo(k)fluoranthene	115	ug/kg	72.0	9.2	4	04/14/21 08:29	04/14/21 17:42	207-08-9	
Chrysene	260	ug/kg	72.0	13.6	4	04/14/21 08:29	04/14/21 17:42	218-01-9	L2
Dibenz(a,h)anthracene	42.0J	ug/kg	72.0	10	4	04/14/21 08:29	04/14/21 17:42	53-70-3	
Fluoranthene	225	ug/kg	72.0	8.5	4	04/14/21 08:29	04/14/21 17:42	206-44-0	
Fluorene	12.4J	ug/kg	72.0	8.6	4	04/14/21 08:29	04/14/21 17:42	86-73-7	
Indeno(1,2,3-cd)pyrene	133	ug/kg	72.0	15.0	4	04/14/21 08:29	04/14/21 17:42	193-39-5	
1-Methylnaphthalene	63.9J	ug/kg	72.0	10.5	4	04/14/21 08:29	04/14/21 17:42	90-12-0	
2-Methylnaphthalene	89.1	ug/kg	72.0	10.5	4	04/14/21 08:29	04/14/21 17:42	91-57-6	
Naphthalene	65.1J	ug/kg	72.0	7.0	4	04/14/21 08:29	04/14/21 17:42	91-20-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #4 ABOVE
Pace Project No.: 40224475

Sample: #4 ABOVE **Lab ID: 40224475001** Collected: 04/01/21 09:15 Received: 04/03/21 10:35 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	105	ug/kg	72.0	8.2	4	04/14/21 08:29	04/14/21 17:42	85-01-8	
Pyrene	437	ug/kg	72.0	10.6	4	04/14/21 08:29	04/14/21 17:42	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	52	%	36-86		4	04/14/21 08:29	04/14/21 17:42	321-60-8	
Terphenyl-d14 (S)	58	%	41-97		4	04/14/21 08:29	04/14/21 17:42	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	<13.9	ug/kg	58.0	13.9	1	04/09/21 10:15	04/09/21 20:51	630-20-6	
1,1,1-Trichloroethane	<14.8	ug/kg	58.0	14.8	1	04/09/21 10:15	04/09/21 20:51	71-55-6	
1,1,2,2-Tetrachloroethane	<21.0	ug/kg	58.0	21.0	1	04/09/21 10:15	04/09/21 20:51	79-34-5	
1,1,2-Trichloroethane	<21.1	ug/kg	58.0	21.1	1	04/09/21 10:15	04/09/21 20:51	79-00-5	
1,1-Dichloroethane	<14.8	ug/kg	58.0	14.8	1	04/09/21 10:15	04/09/21 20:51	75-34-3	
1,1-Dichloroethene	<19.2	ug/kg	58.0	19.2	1	04/09/21 10:15	04/09/21 20:51	75-35-4	
1,1-Dichloropropene	<18.8	ug/kg	58.0	18.8	1	04/09/21 10:15	04/09/21 20:51	563-58-6	
1,2,3-Trichlorobenzene	<64.6	ug/kg	290	64.6	1	04/09/21 10:15	04/09/21 20:51	87-61-6	
1,2,3-Trichloropropane	<28.2	ug/kg	58.0	28.2	1	04/09/21 10:15	04/09/21 20:51	96-18-4	
1,2,4-Trichlorobenzene	<47.8	ug/kg	290	47.8	1	04/09/21 10:15	04/09/21 20:51	120-82-1	
1,2,4-Trimethylbenzene	69.1	ug/kg	58.0	17.3	1	04/09/21 10:15	04/09/21 20:51	95-63-6	
1,2-Dibromo-3-chloropropane	<45.0	ug/kg	290	45.0	1	04/09/21 10:15	04/09/21 20:51	96-12-8	
1,2-Dibromoethane (EDB)	<15.9	ug/kg	58.0	15.9	1	04/09/21 10:15	04/09/21 20:51	106-93-4	
1,2-Dichlorobenzene	<18.0	ug/kg	58.0	18.0	1	04/09/21 10:15	04/09/21 20:51	95-50-1	
1,2-Dichloroethane	<13.3	ug/kg	58.0	13.3	1	04/09/21 10:15	04/09/21 20:51	107-06-2	
1,2-Dichloropropane	<13.8	ug/kg	58.0	13.8	1	04/09/21 10:15	04/09/21 20:51	78-87-5	
1,3,5-Trimethylbenzene	<18.7	ug/kg	58.0	18.7	1	04/09/21 10:15	04/09/21 20:51	108-67-8	
1,3-Dichlorobenzene	<15.9	ug/kg	58.0	15.9	1	04/09/21 10:15	04/09/21 20:51	541-73-1	
1,3-Dichloropropane	<12.6	ug/kg	58.0	12.6	1	04/09/21 10:15	04/09/21 20:51	142-28-9	
1,4-Dichlorobenzene	<15.9	ug/kg	58.0	15.9	1	04/09/21 10:15	04/09/21 20:51	106-46-7	
2,2-Dichloropropane	<15.7	ug/kg	58.0	15.7	1	04/09/21 10:15	04/09/21 20:51	594-20-7	
2-Chlorotoluene	<18.8	ug/kg	58.0	18.8	1	04/09/21 10:15	04/09/21 20:51	95-49-8	
4-Chlorotoluene	<22.0	ug/kg	58.0	22.0	1	04/09/21 10:15	04/09/21 20:51	106-43-4	
Benzene	47.7	ug/kg	23.2	13.8	1	04/09/21 10:15	04/09/21 20:51	71-43-2	
Bromobenzene	<22.6	ug/kg	58.0	22.6	1	04/09/21 10:15	04/09/21 20:51	108-86-1	
Bromochloromethane	<15.9	ug/kg	58.0	15.9	1	04/09/21 10:15	04/09/21 20:51	74-97-5	
Bromodichloromethane	<13.8	ug/kg	58.0	13.8	1	04/09/21 10:15	04/09/21 20:51	75-27-4	
Bromoform	<255	ug/kg	290	255	1	04/09/21 10:15	04/09/21 20:51	75-25-2	
Bromomethane	<81.3	ug/kg	290	81.3	1	04/09/21 10:15	04/09/21 20:51	74-83-9	
Carbon tetrachloride	<12.8	ug/kg	58.0	12.8	1	04/09/21 10:15	04/09/21 20:51	56-23-5	
Chlorobenzene	<6.9	ug/kg	58.0	6.9	1	04/09/21 10:15	04/09/21 20:51	108-90-7	
Chloroethane	<24.5	ug/kg	290	24.5	1	04/09/21 10:15	04/09/21 20:51	75-00-3	
Chloroform	<41.5	ug/kg	290	41.5	1	04/09/21 10:15	04/09/21 20:51	67-66-3	
Chloromethane	<22.0	ug/kg	58.0	22.0	1	04/09/21 10:15	04/09/21 20:51	74-87-3	
Dibromochloromethane	<198	ug/kg	290	198	1	04/09/21 10:15	04/09/21 20:51	124-48-1	
Dibromomethane	<17.2	ug/kg	58.0	17.2	1	04/09/21 10:15	04/09/21 20:51	74-95-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #4 ABOVE
Pace Project No.: 40224475

Sample: #4 ABOVE **Lab ID: 40224475001** Collected: 04/01/21 09:15 Received: 04/03/21 10:35 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	<24.9	ug/kg	58.0	24.9	1	04/09/21 10:15	04/09/21 20:51	75-71-8	
Diisopropyl ether	<14.4	ug/kg	58.0	14.4	1	04/09/21 10:15	04/09/21 20:51	108-20-3	
Ethylbenzene	17.9J	ug/kg	58.0	13.8	1	04/09/21 10:15	04/09/21 20:51	100-41-4	
Hexachloro-1,3-butadiene	<115	ug/kg	290	115	1	04/09/21 10:15	04/09/21 20:51	87-68-3	
Isopropylbenzene (Cumene)	<15.7	ug/kg	58.0	15.7	1	04/09/21 10:15	04/09/21 20:51	98-82-8	
Methyl-tert-butyl ether	<17.0	ug/kg	58.0	17.0	1	04/09/21 10:15	04/09/21 20:51	1634-04-4	
Methylene Chloride	38.6J	ug/kg	58.0	16.1	1	04/09/21 10:15	04/09/21 20:51	75-09-2	
Naphthalene	<18.1	ug/kg	290	18.1	1	04/09/21 10:15	04/09/21 20:51	91-20-3	
Styrene	<14.8	ug/kg	58.0	14.8	1	04/09/21 10:15	04/09/21 20:51	100-42-5	
Tetrachloroethene	<22.5	ug/kg	58.0	22.5	1	04/09/21 10:15	04/09/21 20:51	127-18-4	
Toluene	27.6J	ug/kg	58.0	14.6	1	04/09/21 10:15	04/09/21 20:51	108-88-3	
Trichloroethene	<21.7	ug/kg	58.0	21.7	1	04/09/21 10:15	04/09/21 20:51	79-01-6	
Trichlorofluoromethane	<16.8	ug/kg	58.0	16.8	1	04/09/21 10:15	04/09/21 20:51	75-69-4	
Vinyl chloride	<11.7	ug/kg	58.0	11.7	1	04/09/21 10:15	04/09/21 20:51	75-01-4	
cis-1,2-Dichloroethene	<12.4	ug/kg	58.0	12.4	1	04/09/21 10:15	04/09/21 20:51	156-59-2	
cis-1,3-Dichloropropene	<38.3	ug/kg	290	38.3	1	04/09/21 10:15	04/09/21 20:51	10061-01-5	
m&p-Xylene	70.0J	ug/kg	116	24.5	1	04/09/21 10:15	04/09/21 20:51	179601-23-1	
n-Butylbenzene	<26.5	ug/kg	58.0	26.5	1	04/09/21 10:15	04/09/21 20:51	104-51-8	
n-Propylbenzene	<13.9	ug/kg	58.0	13.9	1	04/09/21 10:15	04/09/21 20:51	103-65-1	
o-Xylene	26.7J	ug/kg	58.0	17.4	1	04/09/21 10:15	04/09/21 20:51	95-47-6	
p-Isopropyltoluene	<17.6	ug/kg	58.0	17.6	1	04/09/21 10:15	04/09/21 20:51	99-87-6	
sec-Butylbenzene	18.4J	ug/kg	58.0	14.1	1	04/09/21 10:15	04/09/21 20:51	135-98-8	
tert-Butylbenzene	<18.2	ug/kg	58.0	18.2	1	04/09/21 10:15	04/09/21 20:51	98-06-6	
trans-1,2-Dichloroethene	<12.5	ug/kg	58.0	12.5	1	04/09/21 10:15	04/09/21 20:51	156-60-5	
trans-1,3-Dichloropropene	<166	ug/kg	290	166	1	04/09/21 10:15	04/09/21 20:51	10061-02-6	
Surrogates									
Toluene-d8 (S)	101	%	67-159		1	04/09/21 10:15	04/09/21 20:51	2037-26-5	
4-Bromofluorobenzene (S)	99	%	66-153		1	04/09/21 10:15	04/09/21 20:51	460-00-4	
1,2-Dichlorobenzene-d4 (S)	99	%	82-158		1	04/09/21 10:15	04/09/21 20:51	2199-69-1	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	7.4	%	0.10	0.10	1		04/05/21 14:08		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: #4 ABOVE
Pace Project No.: 40224475

QC Batch: 382313	Analysis Method: EPA 7471
QC Batch Method: EPA 7471	Analysis Description: 7471 Mercury
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224475001

METHOD BLANK: 2205177 Matrix: Solid
Associated Lab Samples: 40224475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.010	0.035	04/14/21 11:22	

LABORATORY CONTROL SAMPLE: 2205178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.83	0.82	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2205179 2205180

Parameter	Units	2205179		2205180		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224520001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/kg	0.32	0.92	0.9	1.3	1.1	107	89	85-115	14	20

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QUALITY CONTROL DATA

Project: #4 ABOVE
Pace Project No.: 40224475

QC Batch: 381497	Analysis Method: EPA 6010
QC Batch Method: EPA 3050	Analysis Description: 6010 MET
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224475001

METHOD BLANK: 2200434 Matrix: Solid

Associated Lab Samples: 40224475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.5	2.5	04/07/21 11:43	
Barium	mg/kg	<0.15	0.50	04/07/21 11:43	
Cadmium	mg/kg	<0.13	0.50	04/07/21 11:43	
Chromium	mg/kg	<0.28	1.0	04/07/21 11:43	
Lead	mg/kg	<0.60	2.0	04/07/21 11:43	
Selenium	mg/kg	<1.3	4.0	04/07/21 11:43	
Silver	mg/kg	<0.31	1.0	04/07/21 11:43	

LABORATORY CONTROL SAMPLE: 2200435

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	50.8	102	80-120	
Barium	mg/kg	50	49.6	99	80-120	
Cadmium	mg/kg	50	50.0	100	80-120	
Chromium	mg/kg	50	51.9	104	80-120	
Lead	mg/kg	50	51.0	102	80-120	
Selenium	mg/kg	50	51.3	103	80-120	
Silver	mg/kg	25	23.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2200436 2200437

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224473001 Result	Spike Conc.	Spike Conc.	Result						
Arsenic	mg/kg	18.5	60	60.2	77.7	77.6	99	98	75-125	0	20
Barium	mg/kg	26.8	60	60.2	88.1	87.6	102	101	75-125	1	20
Cadmium	mg/kg	0.29J	60	60.2	59.2	59.1	98	98	75-125	0	20
Chromium	mg/kg	8.5	60	60.2	68.4	69.6	100	101	75-125	2	20
Lead	mg/kg	62.9	60	60.2	119	116	94	89	75-125	3	20
Selenium	mg/kg	<1.6	60	60.2	60.5	61.4	101	102	75-125	1	20
Silver	mg/kg	<0.37	30	30.1	28.2	28.3	93	94	75-125	0	20

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QUALITY CONTROL DATA

Project: #4 ABOVE
Pace Project No.: 40224475

QC Batch: 382037 Analysis Method: EPA 8260
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224475001

METHOD BLANK: 2203495 Matrix: Solid
Associated Lab Samples: 40224475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<12.0	50.0	04/09/21 16:29	
1,1,1-Trichloroethane	ug/kg	<12.8	50.0	04/09/21 16:29	
1,1,2,2-Tetrachloroethane	ug/kg	<18.1	50.0	04/09/21 16:29	
1,1,2-Trichloroethane	ug/kg	<18.2	50.0	04/09/21 16:29	
1,1-Dichloroethane	ug/kg	<12.8	50.0	04/09/21 16:29	
1,1-Dichloroethene	ug/kg	<16.6	50.0	04/09/21 16:29	
1,1-Dichloropropene	ug/kg	<16.2	50.0	04/09/21 16:29	
1,2,3-Trichlorobenzene	ug/kg	<55.7	250	04/09/21 16:29	
1,2,3-Trichloropropane	ug/kg	<24.3	50.0	04/09/21 16:29	
1,2,4-Trichlorobenzene	ug/kg	<41.2	250	04/09/21 16:29	
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	04/09/21 16:29	
1,2-Dibromo-3-chloropropane	ug/kg	<38.8	250	04/09/21 16:29	
1,2-Dibromoethane (EDB)	ug/kg	<13.7	50.0	04/09/21 16:29	
1,2-Dichlorobenzene	ug/kg	<15.5	50.0	04/09/21 16:29	
1,2-Dichloroethane	ug/kg	<11.5	50.0	04/09/21 16:29	
1,2-Dichloropropane	ug/kg	<11.9	50.0	04/09/21 16:29	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	04/09/21 16:29	
1,3-Dichlorobenzene	ug/kg	<13.7	50.0	04/09/21 16:29	
1,3-Dichloropropane	ug/kg	<10.9	50.0	04/09/21 16:29	
1,4-Dichlorobenzene	ug/kg	<13.7	50.0	04/09/21 16:29	
2,2-Dichloropropane	ug/kg	<13.5	50.0	04/09/21 16:29	
2-Chlorotoluene	ug/kg	<16.2	50.0	04/09/21 16:29	
4-Chlorotoluene	ug/kg	<19.0	50.0	04/09/21 16:29	
Benzene	ug/kg	<11.9	20.0	04/09/21 16:29	
Bromobenzene	ug/kg	<19.5	50.0	04/09/21 16:29	
Bromochloromethane	ug/kg	<13.7	50.0	04/09/21 16:29	
Bromodichloromethane	ug/kg	<11.9	50.0	04/09/21 16:29	
Bromoform	ug/kg	<220	250	04/09/21 16:29	
Bromomethane	ug/kg	<70.1	250	04/09/21 16:29	
Carbon tetrachloride	ug/kg	<11.0	50.0	04/09/21 16:29	
Chlorobenzene	ug/kg	<6.0	50.0	04/09/21 16:29	
Chloroethane	ug/kg	<21.1	250	04/09/21 16:29	
Chloroform	ug/kg	<35.8	250	04/09/21 16:29	
Chloromethane	ug/kg	<19.0	50.0	04/09/21 16:29	
cis-1,2-Dichloroethene	ug/kg	<10.7	50.0	04/09/21 16:29	
cis-1,3-Dichloropropene	ug/kg	<33.0	250	04/09/21 16:29	
Dibromochloromethane	ug/kg	<171	250	04/09/21 16:29	
Dibromomethane	ug/kg	<14.8	50.0	04/09/21 16:29	
Dichlorodifluoromethane	ug/kg	<21.5	50.0	04/09/21 16:29	
Diisopropyl ether	ug/kg	<12.4	50.0	04/09/21 16:29	

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QUALITY CONTROL DATA

Project: #4 ABOVE
Pace Project No.: 40224475

METHOD BLANK: 2203495
Associated Lab Samples: 40224475001

Matrix: Solid

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/kg	<11.9	50.0	04/09/21 16:29	
Hexachloro-1,3-butadiene	ug/kg	<99.4	250	04/09/21 16:29	
Isopropylbenzene (Cumene)	ug/kg	<13.5	50.0	04/09/21 16:29	
m&p-Xylene	ug/kg	<21.1	100	04/09/21 16:29	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	04/09/21 16:29	
Methylene Chloride	ug/kg	<13.9	50.0	04/09/21 16:29	
n-Butylbenzene	ug/kg	<22.9	50.0	04/09/21 16:29	
n-Propylbenzene	ug/kg	<12.0	50.0	04/09/21 16:29	
Naphthalene	ug/kg	<15.6	250	04/09/21 16:29	
o-Xylene	ug/kg	<15.0	50.0	04/09/21 16:29	
p-Isopropyltoluene	ug/kg	<15.2	50.0	04/09/21 16:29	
sec-Butylbenzene	ug/kg	<12.2	50.0	04/09/21 16:29	
Styrene	ug/kg	<12.8	50.0	04/09/21 16:29	
tert-Butylbenzene	ug/kg	<15.7	50.0	04/09/21 16:29	
Tetrachloroethene	ug/kg	<19.4	50.0	04/09/21 16:29	
Toluene	ug/kg	<12.6	50.0	04/09/21 16:29	
trans-1,2-Dichloroethene	ug/kg	<10.8	50.0	04/09/21 16:29	
trans-1,3-Dichloropropene	ug/kg	<143	250	04/09/21 16:29	
Trichloroethene	ug/kg	<18.7	50.0	04/09/21 16:29	
Trichlorofluoromethane	ug/kg	<14.5	50.0	04/09/21 16:29	
Vinyl chloride	ug/kg	<10.1	50.0	04/09/21 16:29	
1,2-Dichlorobenzene-d4 (S)	%	89	82-158	04/09/21 16:29	
4-Bromofluorobenzene (S)	%	91	66-153	04/09/21 16:29	
Toluene-d8 (S)	%	95	67-159	04/09/21 16:29	

LABORATORY CONTROL SAMPLE: 2203496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2380	95	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2400	96	65-129	
1,1,2-Trichloroethane	ug/kg	2500	2450	98	70-130	
1,1-Dichloroethane	ug/kg	2500	2480	99	70-130	
1,1-Dichloroethene	ug/kg	2500	1840	73	67-120	
1,2,4-Trichlorobenzene	ug/kg	2500	1800	72	64-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2520	101	57-119	
1,2-Dibromoethane (EDB)	ug/kg	2500	2430	97	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2310	92	70-130	
1,2-Dichloroethane	ug/kg	2500	2500	100	70-130	
1,2-Dichloropropane	ug/kg	2500	2410	96	72-118	
1,3-Dichlorobenzene	ug/kg	2500	2180	87	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2170	87	70-130	
Benzene	ug/kg	2500	2280	91	70-130	
Bromodichloromethane	ug/kg	2500	2370	95	70-130	
Bromoform	ug/kg	2500	2270	91	66-130	

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QUALITY CONTROL DATA

Project: #4 ABOVE
Pace Project No.: 40224475

LABORATORY CONTROL SAMPLE: 2203496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/kg	2500	1270	51	13-153	
Carbon tetrachloride	ug/kg	2500	2330	93	73-134	
Chlorobenzene	ug/kg	2500	2320	93	70-130	
Chloroethane	ug/kg	2500	1730	69	19-170	
Chloroform	ug/kg	2500	2430	97	79-120	
Chloromethane	ug/kg	2500	1860	75	45-117	
cis-1,2-Dichloroethene	ug/kg	2500	2200	88	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2310	92	68-130	
Dibromochloromethane	ug/kg	2500	2180	87	70-130	
Dichlorodifluoromethane	ug/kg	2500	1670	67	15-135	
Ethylbenzene	ug/kg	2500	2280	91	78-120	
Isopropylbenzene (Cumene)	ug/kg	2500	2410	96	70-130	
m&p-Xylene	ug/kg	5000	4490	90	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2390	96	65-130	
Methylene Chloride	ug/kg	2500	2260	90	70-130	
o-Xylene	ug/kg	2500	2290	92	70-130	
Styrene	ug/kg	2500	2460	99	70-130	
Tetrachloroethene	ug/kg	2500	1900	76	70-130	
Toluene	ug/kg	2500	2220	89	76-120	
trans-1,2-Dichloroethene	ug/kg	2500	2310	92	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2460	98	70-130	
Trichloroethene	ug/kg	2500	2270	91	70-130	
Trichlorofluoromethane	ug/kg	2500	1970	79	49-153	
Vinyl chloride	ug/kg	2500	1890	76	58-121	
1,2-Dichlorobenzene-d4 (S)	%			98	82-158	
4-Bromofluorobenzene (S)	%			102	66-153	
Toluene-d8 (S)	%			101	67-159	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2203497 2203498

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224684001 Result	Spike Conc.	Spike Conc.	Result						
1,1,1-Trichloroethane	ug/kg	<13.9			1040	1100			6	20	
1,1,2,2-Tetrachloroethane	ug/kg	<19.6			1060	1100			4	20	
1,1,2-Trichloroethane	ug/kg	<19.7			1190	1140			4	20	
1,1-Dichloroethane	ug/kg	<13.9			1200	1200			0	20	
1,1-Dichloroethene	ug/kg	<18.0			837	968			15	20	
1,2,4-Trichlorobenzene	ug/kg	<44.6			997	971			3	20	
1,2-Dibromo-3-chloropropane	ug/kg	<42.0			1170	1180			1	21	
1,2-Dibromoethane (EDB)	ug/kg	<14.8			1130	1130			0	20	
1,2-Dichlorobenzene	ug/kg	<16.8			1160	1180			2	20	
1,2-Dichloroethane	ug/kg	<12.5			1230	1180			5	20	
1,2-Dichloropropane	ug/kg	<12.9			1160	1120			3	20	
1,3-Dichlorobenzene	ug/kg	<14.8			1130	1140			1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: #4 ABOVE

Pace Project No.: 40224475

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2203497		2203498		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224684001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
1,4-Dichlorobenzene	ug/kg	<14.8			1070	1170			9	20	
Benzene	ug/kg	<12.9			1100	1090			1	20	
Bromodichloromethane	ug/kg	<12.9			1070	1080			1	20	
Bromoform	ug/kg	<238			1040	1050			1	20	
Bromomethane	ug/kg	<75.9			701	672			4	20	
Carbon tetrachloride	ug/kg	<11.9			1000	1090			9	20	
Chlorobenzene	ug/kg	<6.5			1130	1130			0	20	
Chloroethane	ug/kg	<22.9			1140	1020			11	20	
Chloroform	ug/kg	<38.8			1160	1160			0	20	
Chloromethane	ug/kg	<20.6			1150	1180			3	20	
cis-1,2-Dichloroethene	ug/kg	<11.6			1060	1040			2	20	
cis-1,3-Dichloropropene	ug/kg	<35.7			1080	1080			0	20	
Dibromochloromethane	ug/kg	<185			978	994			2	20	
Dichlorodifluoromethane	ug/kg	<23.3			1040	1360			26	25 R1	
Ethylbenzene	ug/kg	<12.9			1120	1110			1	20	
Isopropylbenzene (Cumene)	ug/kg	<14.6			1170	1190			2	20	
m&p-Xylene	ug/kg	<22.9			2210	2350			6	20	
Methyl-tert-butyl ether	ug/kg	<15.9			1090	1120			2	20	
Methylene Chloride	ug/kg	24.7J			1150	1140			1	20	
o-Xylene	ug/kg	<16.2			1170	1130			3	20	
Styrene	ug/kg	<13.9			1190	1220			2	20	
Tetrachloroethene	ug/kg	<21.0			896	911			2	20	
Toluene	ug/kg	<13.6			1090	1060			3	20	
trans-1,2-Dichloroethene	ug/kg	<11.7			1100	1110			0	20	
trans-1,3-Dichloropropene	ug/kg	<155			1180	1180			0	20	
Trichloroethene	ug/kg	<20.3			1020	1050			3	20	
Trichlorofluoromethane	ug/kg	<15.7			907	1040			14	21	
Vinyl chloride	ug/kg	<10.9			1010	1080			7	20	
1,2-Dichlorobenzene-d4 (S)	%						94	105	82-158		
4-Bromofluorobenzene (S)	%						104	114	66-153		
Toluene-d8 (S)	%						109	110	67-159		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: #4 ABOVE
Pace Project No.: 40224475

QC Batch: 381655 Analysis Method: EPA 8082
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224475001

METHOD BLANK: 2201076 Matrix: Solid
Associated Lab Samples: 40224475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1221 (Aroclor 1221)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1232 (Aroclor 1232)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1242 (Aroclor 1242)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1248 (Aroclor 1248)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1254 (Aroclor 1254)	ug/kg	<15.2	50.0	04/07/21 09:45	
PCB-1260 (Aroclor 1260)	ug/kg	<15.2	50.0	04/07/21 09:45	
Decachlorobiphenyl (S)	%	79	47-114	04/07/21 09:45	
Tetrachloro-m-xylene (S)	%	82	67-102	04/07/21 09:45	

LABORATORY CONTROL SAMPLE: 2201077

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	405	81	69-115	
Decachlorobiphenyl (S)	%			80	47-114	
Tetrachloro-m-xylene (S)	%			85	67-102	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2201078 2201079

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224365039	Spike Conc.	Spike Conc.	Result						
PCB-1016 (Aroclor 1016)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1221 (Aroclor 1221)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1232 (Aroclor 1232)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1242 (Aroclor 1242)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1248 (Aroclor 1248)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20
PCB-1254 (Aroclor 1254)	ug/kg	<0.018 mg/kg			<17.7	<17.6					20

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QUALITY CONTROL DATA

Project: #4 ABOVE

Pace Project No.: 40224475

Parameter	Units	2201078		2201079		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224365039 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
PCB-1260 (Aroclor 1260)	ug/kg	<0.018 mg/kg	581	577	443	439	76	76	45-120	1	20		
Decachlorobiphenyl (S)	%							75	75	47-114			
Tetrachloro-m-xylene (S)	%							80	78	67-102			

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QUALITY CONTROL DATA

Project: #4 ABOVE
Pace Project No.: 40224475

QC Batch: 382393	Analysis Method: EPA 8270E by SIM
QC Batch Method: EPA 3546	Analysis Description: 8270E/3546 MSSV PAH by SIM
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224475001

METHOD BLANK: 2205462 Matrix: Solid
Associated Lab Samples: 40224475001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.4	16.7	04/14/21 11:58	
2-Methylnaphthalene	ug/kg	<2.4	16.7	04/14/21 11:58	
Acenaphthene	ug/kg	<2.2	16.7	04/14/21 11:58	
Acenaphthylene	ug/kg	<2.1	16.7	04/14/21 11:58	
Anthracene	ug/kg	<2.1	16.7	04/14/21 11:58	
Benzo(a)anthracene	ug/kg	<2.2	16.7	04/14/21 11:58	
Benzo(a)pyrene	ug/kg	<1.9	16.7	04/14/21 11:58	
Benzo(b)fluoranthene	ug/kg	<2.3	16.7	04/14/21 11:58	
Benzo(g,h,i)perylene	ug/kg	<2.9	16.7	04/14/21 11:58	
Benzo(k)fluoranthene	ug/kg	<2.1	16.7	04/14/21 11:58	
Chrysene	ug/kg	<3.1	16.7	04/14/21 11:58	
Dibenz(a,h)anthracene	ug/kg	<2.3	16.7	04/14/21 11:58	
Fluoranthene	ug/kg	<2.0	16.7	04/14/21 11:58	
Fluorene	ug/kg	<2.0	16.7	04/14/21 11:58	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.5	16.7	04/14/21 11:58	
Naphthalene	ug/kg	<1.6	16.7	04/14/21 11:58	
Phenanthrene	ug/kg	<1.9	16.7	04/14/21 11:58	
Pyrene	ug/kg	<2.5	16.7	04/14/21 11:58	
2-Fluorobiphenyl (S)	%	65	36-86	04/14/21 11:58	
Terphenyl-d14 (S)	%	95	41-97	04/14/21 11:58	

LABORATORY CONTROL SAMPLE: 2205463

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	259	78	53-100	
2-Methylnaphthalene	ug/kg	333	257	77	51-97	
Acenaphthene	ug/kg	333	236	71	62-120	
Acenaphthylene	ug/kg	333	241	72	61-120	
Anthracene	ug/kg	333	271	81	62-111	
Benzo(a)anthracene	ug/kg	333	259	78	61-120	
Benzo(a)pyrene	ug/kg	333	270	81	65-120	
Benzo(b)fluoranthene	ug/kg	333	260	78	64-108	
Benzo(g,h,i)perylene	ug/kg	333	257	77	71-120	
Benzo(k)fluoranthene	ug/kg	333	255	76	76-120	
Chrysene	ug/kg	333	242	73	74-120	L2
Dibenz(a,h)anthracene	ug/kg	333	257	77	71-120	
Fluoranthene	ug/kg	333	275	83	67-112	
Fluorene	ug/kg	333	269	81	65-120	
Indeno(1,2,3-cd)pyrene	ug/kg	333	270	81	74-120	

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QUALITY CONTROL DATA

Project: #4 ABOVE
Pace Project No.: 40224475

LABORATORY CONTROL SAMPLE: 2205463

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	333	226	68	53-120	
Phenanthrene	ug/kg	333	262	79	67-120	
Pyrene	ug/kg	333	281	84	60-103	
2-Fluorobiphenyl (S)	%			71	36-86	
Terphenyl-d14 (S)	%			83	41-97	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2205464 2205465

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40224771003 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
1-Methylnaphthalene	ug/kg	<2.6	352	352	229	207	65	58	41-100	10	29	
2-Methylnaphthalene	ug/kg	<2.6	352	352	230	200	65	56	42-97	14	21	
Acenaphthene	ug/kg	<2.3	352	352	210	190	60	54	43-120	10	27	
Acenaphthylene	ug/kg	<2.2	352	352	212	191	60	54	51-120	10	26	
Anthracene	ug/kg	<2.2	352	352	214	225	60	64	46-111	5	29	
Benzo(a)anthracene	ug/kg	6.9J	352	352	217	247	60	68	48-120	13	23	
Benzo(a)pyrene	ug/kg	8.3J	352	352	233	263	64	72	46-108	12	30	
Benzo(b)fluoranthene	ug/kg	11.8J	352	352	291	298	79	81	45-108	2	30	
Benzo(g,h,i)perylene	ug/kg	13.5J	352	352	213	454	57	125	39-120	72	37	M1,R1
Benzo(k)fluoranthene	ug/kg	4.8J	352	352	264	200	74	56	47-120	27	31	
Chrysene	ug/kg	10.5J	352	352	222	278	60	76	54-120	22	21	R1
Dibenz(a,h)anthracene	ug/kg	<2.4	352	352	204	222	57	63	46-120	8	34	
Fluoranthene	ug/kg	17.6J	352	352	249	296	66	79	53-112	17	27	
Fluorene	ug/kg	<2.1	352	352	213	188	61	53	48-120	13	29	
Indeno(1,2,3-cd)pyrene	ug/kg	6.9J	352	352	217	415	60	116	40-120	63	34	R1
Naphthalene	ug/kg	<1.7	352	352	211	195	60	55	47-120	8	25	
Phenanthrene	ug/kg	13.8J	352	352	234	237	62	63	49-120	1	28	
Pyrene	ug/kg	15.4J	352	352	214	236	56	63	43-103	10	31	
2-Fluorobiphenyl (S)	%						60	54	36-86			
Terphenyl-d14 (S)	%						54	45	41-97			

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QUALITY CONTROL DATA

Project: #4 ABOVE

Pace Project No.: 40224475

QC Batch: 381548

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224475001

SAMPLE DUPLICATE: 2200632

Parameter	Units	40224456016 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.3	12.7	4	10	

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QUALIFIERS

Project: #4 ABOVE

Pace Project No.: 40224475

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 - Estimated concentration at or above the LOD and below the LOQ.

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.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.

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

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: #4 ABOVE
Pace Project No.: 40224475

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40224475001	#4 ABOVE	EPA 3541	381655	EPA 8082	381671
40224475001	#4 ABOVE	EPA 3050	381497	EPA 6010	381704
40224475001	#4 ABOVE	EPA 7471	382313	EPA 7471	382422
40224475001	#4 ABOVE	EPA 3546	382393	EPA 8270E by SIM	382442
40224475001	#4 ABOVE	EPA 5035/5030B	382037	EPA 8260	382038
40224475001	#4 ABOVE	ASTM D2974-87	381548		

REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name: Marinette Marine
 Branch/Location: Marinette
 Project Contact: Makayla Jacobs
 Phone: 715-245-1931
 Project Number:
 Project Name: #4 above
 Project State: WI
 Sampled By (Print): Warren + Makayla
 Sampled By (Sign): [Signature]
 PO #: _____ Regulatory Program: _____



40224475

CHAIN OF CUSTODY

***Preservation Codes**
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Y/N	Pick Letter	Filtered? (YES/NO)	Preservation (CODE)*	Analyses Requested															
				ROCC/VOCC															
				RCRA Metals															
				PAHs															
				PCBs															

Quote #: _____
 Mail To Contact: _____
 Mail To Company: _____
 Mail To Address: _____
 Invoice To Contact: _____
 Invoice To Company: _____
 Invoice To Address: _____
 Invoice To Phone: _____
 CLIENT COMMENTS: _____
 LAB COMMENTS (Lab Use Only): _____
 Profile #: _____

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Biota DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Waste Water
 SI = Sludge WP = Wipe

col

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Y/N	Pick Letter	Filtered? (YES/NO)	Preservation (CODE)*	Analyses Requested											
		DATE	TIME																	
<u>1</u>	<u>#4 above</u>	<u>4-21</u>	<u>9:15</u>	<u>S</u>																

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)
 Date Needed: _____
 Relinquished By: Makayla Jacobs Date/Time: 4-2-21 / 7:15am
 Received By: [Signature] Date/Time: _____
 Transmit Prelim Rush Results by (complete what you want): UPS Date/Time: 4/3/21 1035
 Relinquished By: [Signature] Date/Time: _____
 Received By: [Signature] Date/Time: _____
 Email #1: _____
 Email #2: _____
 Telephone: _____
 Fax: _____
 Relinquished By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Relinquished By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____

PACE Project No. 40224475
 Receipt Temp = 4.5 °C
 Sample Receipt pH OK / Adjusted
 Cooler Custody Seal Present / Not Present Present
 Intact / Not Intact Intact

Sample Preservation Receipt Form

Client Name: Manikette Marine Project # 60224475

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

Initial when completed:

Date/Time:

Lab Lot# of pH paper: _____ Lab Std #ID of preservation (if pH adjusted): _____

Pace Lab #	Glass					Plastic					Vials				Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)									
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU								JG9U	WGFU	WPFU	SP5T	ZPLC	GN			
001																																				2.5 / 5 / 10
002																																				2.5 / 5 / 10
003																																				2.5 / 5 / 10
004																																				2.5 / 5 / 10
005																																				2.5 / 5 / 10
006																																				2.5 / 5 / 10
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020																																				2.5 / 5 / 10

4/15/21

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	BP1U	1 liter plastic unpres	VG9A	40 mL clear ascorbic	JGFU	4 oz amber jar unpres
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG5U	100 mL amber glass unpres			VG9D	40 mL clear vial DI	ZPLC	ziploc bag
AG2S	500 mL amber glass H2SO4					GN	
BG3U	250 mL clear glass unpres						



Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
Document No.: ENV-FRM-GBAY-0014-Rev.00	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Marinette Marine Project #: _____
 Courier: CS Logistics Fed Ex Speedee UPS Waltco
 Client Pace Other: _____

WO#: 40224475

Tracking #: 1Z 578 899 41 6665 4555
 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 - 90 Type of Ice: Blue Dry None
 Cooler Temperature Uncorr: 5 / Corr: 4.5

Samples on ice, cooling process has begun
 Person examining contents:
 Date: 4/3/21 / Initials: MR
 Labeled By Initials: MR

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.

Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1. <u>pres.</u>	<u>MR4-321</u>
Chain of Custody Filled Out: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>ADV name, mail, Invoice, pg #</u>	
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	<u>4/3/21</u>
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No - VOA Samples frozen upon receipt <input type="checkbox"/> Yes <input type="checkbox"/> No	5.	
Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.	
Rush Turn Around Time Requested: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.	
Sufficient Volume: For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8. <u>2 802 in 6P3U</u>	<u>MR4-321</u>
Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No - Pace Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A - Pace IR Containers Used: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.	
Containers Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.	
Filtered volume received for Dissolved tests <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A - Includes date/time/ID/Analysis Matrix: <u>S</u>	12. <u>Ink smeared off, Half legible</u>	
Trip Blank Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.	<u>4/3/21</u>
Trip Blank Custody Seals Present <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: _____ If checked, see attached form for additional comments
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: U + CC MR4-321

April 15, 2021

Makayla Jacobs
Fincantieri Marinette Marine
1600 Ely Street
Marinette, WI 54143

RE: Project: #1 ABOVE
Pace Project No.: 40224520

Dear Makayla Jacobs:

Enclosed are the analytical results for sample(s) received by the laboratory on April 06, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Green Bay

Samples received at 11 degrees C. SVM 4/6/2021

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

Sincerely,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: #1 ABOVE

Pace Project No.: 40224520

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

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: #1 ABOVE

Pace Project No.: 40224520

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40224520001	#1 ABOVE	Solid	04/01/21 09:45	04/06/21 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: #1 ABOVE

Pace Project No.: 40224520

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40224520001	#1 ABOVE	EPA 8082	BLM	10
		EPA 6010	TXW	7
		EPA 7471	AJT	1
		EPA 8270E by SIM	JJB	20
		EPA 8260	MDS	64
		ASTM D2974-87	MMX	1

PASI-G = Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: #1 ABOVE
Pace Project No.: 40224520

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
40224520001	#1 ABOVE					
EPA 8082	PCB-1242 (Aroclor 1242)	160	ug/kg	55.2	04/12/21 15:05	
EPA 8082	PCB-1254 (Aroclor 1254)	136	ug/kg	55.2	04/12/21 15:05	
EPA 8082	PCB-1260 (Aroclor 1260)	58.1	ug/kg	55.2	04/12/21 15:05	
EPA 8082	PCB, Total	355	ug/kg	55.2	04/12/21 15:05	
EPA 6010	Arsenic	30.1	mg/kg	5.5	04/08/21 12:43	
EPA 6010	Barium	96.9	mg/kg	1.1	04/08/21 12:43	M0
EPA 6010	Cadmium	1.2	mg/kg	1.1	04/08/21 12:43	
EPA 6010	Chromium	23.7	mg/kg	2.2	04/08/21 12:43	M0, R1
EPA 6010	Lead	217	mg/kg	4.4	04/08/21 12:43	M0, R1
EPA 7471	Mercury	0.32	mg/kg	0.038	04/14/21 11:27	
EPA 8270E by SIM	Acenaphthene	141J	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Acenaphthylene	64.9J	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Anthracene	167J	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Benzo(a)anthracene	526	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Benzo(a)pyrene	469	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Benzo(b)fluoranthene	676	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Benzo(g,h,i)perylene	313	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Benzo(k)fluoranthene	317	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Chrysene	618	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Dibenz(a,h)anthracene	90.2J	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Fluoranthene	1060	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Fluorene	188	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Indeno(1,2,3-cd)pyrene	269	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	1-Methylnaphthalene	78.2J	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	2-Methylnaphthalene	90.7J	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Naphthalene	109J	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Phenanthrene	667	ug/kg	184	04/14/21 20:36	
EPA 8270E by SIM	Pyrene	892	ug/kg	184	04/14/21 20:36	
EPA 8260	1,2,4-Trimethylbenzene	87.3	ug/kg	60.3	04/10/21 00:12	
EPA 8260	1,4-Dichlorobenzene	63.3	ug/kg	60.3	04/10/21 00:12	
EPA 8260	Benzene	33.5	ug/kg	24.1	04/10/21 00:12	
EPA 8260	Ethylbenzene	30.2J	ug/kg	60.3	04/10/21 00:12	
EPA 8260	Methylene Chloride	42.7J	ug/kg	60.3	04/10/21 00:12	
EPA 8260	Toluene	71.4	ug/kg	60.3	04/10/21 00:12	
EPA 8260	m&p-Xylene	191	ug/kg	121	04/10/21 00:12	
EPA 8260	n-Propylbenzene	22.9J	ug/kg	60.3	04/10/21 00:12	
EPA 8260	o-Xylene	34.1J	ug/kg	60.3	04/10/21 00:12	
EPA 8260	p-Isopropyltoluene	37.3J	ug/kg	60.3	04/10/21 00:12	
EPA 8260	sec-Butylbenzene	16.1J	ug/kg	60.3	04/10/21 00:12	
ASTM D2974-87	Percent Moisture	9.3	%	0.10	04/06/21 16:36	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #1 ABOVE
Pace Project No.: 40224520

Sample: #1 ABOVE **Lab ID: 40224520001** Collected: 04/01/21 09:45 Received: 04/06/21 10:00 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
8082 GCS PCB									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
Pace Analytical Services - Green Bay									
PCB-1016 (Aroclor 1016)	<16.8	ug/kg	55.2	16.8	1	04/08/21 17:54	04/12/21 15:05	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.8	ug/kg	55.2	16.8	1	04/08/21 17:54	04/12/21 15:05	11104-28-2	
PCB-1232 (Aroclor 1232)	<16.8	ug/kg	55.2	16.8	1	04/08/21 17:54	04/12/21 15:05	11141-16-5	
PCB-1242 (Aroclor 1242)	160	ug/kg	55.2	16.8	1	04/08/21 17:54	04/12/21 15:05	53469-21-9	
PCB-1248 (Aroclor 1248)	<16.8	ug/kg	55.2	16.8	1	04/08/21 17:54	04/12/21 15:05	12672-29-6	
PCB-1254 (Aroclor 1254)	136	ug/kg	55.2	16.8	1	04/08/21 17:54	04/12/21 15:05	11097-69-1	
PCB-1260 (Aroclor 1260)	58.1	ug/kg	55.2	16.8	1	04/08/21 17:54	04/12/21 15:05	11096-82-5	
PCB, Total	355	ug/kg	55.2	16.8	1	04/08/21 17:54	04/12/21 15:05	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	67-102		1	04/08/21 17:54	04/12/21 15:05	877-09-8	
Decachlorobiphenyl (S)	69	%	47-114		1	04/08/21 17:54	04/12/21 15:05	2051-24-3	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Pace Analytical Services - Green Bay									
Arsenic	30.1	mg/kg	5.5	3.2	2	04/07/21 07:02	04/08/21 12:43	7440-38-2	
Barium	96.9	mg/kg	1.1	0.33	2	04/07/21 07:02	04/08/21 12:43	7440-39-3	M0
Cadmium	1.2	mg/kg	1.1	0.29	2	04/07/21 07:02	04/08/21 12:43	7440-43-9	
Chromium	23.7	mg/kg	2.2	0.61	2	04/07/21 07:02	04/08/21 12:43	7440-47-3	M0, R1
Lead	217	mg/kg	4.4	1.3	2	04/07/21 07:02	04/08/21 12:43	7439-92-1	M0, R1
Selenium	<2.9	mg/kg	8.8	2.9	2	04/07/21 07:02	04/08/21 12:43	7782-49-2	D3
Silver	<0.67	mg/kg	2.2	0.67	2	04/07/21 07:02	04/08/21 12:43	7440-22-4	D3
7471 Mercury									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Pace Analytical Services - Green Bay									
Mercury	0.32	mg/kg	0.038	0.011	1	04/14/21 07:31	04/14/21 11:27	7439-97-6	
8270E MSSV PAH by SIM									
Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546									
Pace Analytical Services - Green Bay									
Acenaphthene	141J	ug/kg	184	23.9	10	04/13/21 09:46	04/14/21 20:36	83-32-9	
Acenaphthylene	64.9J	ug/kg	184	23.2	10	04/13/21 09:46	04/14/21 20:36	208-96-8	
Anthracene	167J	ug/kg	184	22.8	10	04/13/21 09:46	04/14/21 20:36	120-12-7	
Benzo(a)anthracene	526	ug/kg	184	23.8	10	04/13/21 09:46	04/14/21 20:36	56-55-3	
Benzo(a)pyrene	469	ug/kg	184	20.9	10	04/13/21 09:46	04/14/21 20:36	50-32-8	
Benzo(b)fluoranthene	676	ug/kg	184	25.6	10	04/13/21 09:46	04/14/21 20:36	205-99-2	
Benzo(g,h,i)perylene	313	ug/kg	184	32.3	10	04/13/21 09:46	04/14/21 20:36	191-24-2	
Benzo(k)fluoranthene	317	ug/kg	184	23.5	10	04/13/21 09:46	04/14/21 20:36	207-08-9	
Chrysene	618	ug/kg	184	34.7	10	04/13/21 09:46	04/14/21 20:36	218-01-9	
Dibenz(a,h)anthracene	90.2J	ug/kg	184	25.5	10	04/13/21 09:46	04/14/21 20:36	53-70-3	
Fluoranthene	1060	ug/kg	184	21.8	10	04/13/21 09:46	04/14/21 20:36	206-44-0	
Fluorene	188	ug/kg	184	22.1	10	04/13/21 09:46	04/14/21 20:36	86-73-7	
Indeno(1,2,3-cd)pyrene	269	ug/kg	184	38.4	10	04/13/21 09:46	04/14/21 20:36	193-39-5	
1-Methylnaphthalene	78.2J	ug/kg	184	26.9	10	04/13/21 09:46	04/14/21 20:36	90-12-0	
2-Methylnaphthalene	90.7J	ug/kg	184	26.9	10	04/13/21 09:46	04/14/21 20:36	91-57-6	
Naphthalene	109J	ug/kg	184	17.9	10	04/13/21 09:46	04/14/21 20:36	91-20-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #1 ABOVE
Pace Project No.: 40224520

Sample: #1 ABOVE **Lab ID: 40224520001** Collected: 04/01/21 09:45 Received: 04/06/21 10:00 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	667	ug/kg	184	21.1	10	04/13/21 09:46	04/14/21 20:36	85-01-8	
Pyrene	892	ug/kg	184	27.1	10	04/13/21 09:46	04/14/21 20:36	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	50	%	36-86		10	04/13/21 09:46	04/14/21 20:36	321-60-8	
Terphenyl-d14 (S)	50	%	41-97		10	04/13/21 09:46	04/14/21 20:36	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	<14.5	ug/kg	60.3	14.5	1	04/09/21 10:15	04/10/21 00:12	630-20-6	
1,1,1-Trichloroethane	<15.4	ug/kg	60.3	15.4	1	04/09/21 10:15	04/10/21 00:12	71-55-6	
1,1,2,2-Tetrachloroethane	<21.8	ug/kg	60.3	21.8	1	04/09/21 10:15	04/10/21 00:12	79-34-5	
1,1,2-Trichloroethane	<21.9	ug/kg	60.3	21.9	1	04/09/21 10:15	04/10/21 00:12	79-00-5	
1,1-Dichloroethane	<15.4	ug/kg	60.3	15.4	1	04/09/21 10:15	04/10/21 00:12	75-34-3	
1,1-Dichloroethene	<20.0	ug/kg	60.3	20.0	1	04/09/21 10:15	04/10/21 00:12	75-35-4	
1,1-Dichloropropene	<19.5	ug/kg	60.3	19.5	1	04/09/21 10:15	04/10/21 00:12	563-58-6	
1,2,3-Trichlorobenzene	<67.1	ug/kg	301	67.1	1	04/09/21 10:15	04/10/21 00:12	87-61-6	
1,2,3-Trichloropropane	<29.3	ug/kg	60.3	29.3	1	04/09/21 10:15	04/10/21 00:12	96-18-4	
1,2,4-Trichlorobenzene	<49.7	ug/kg	301	49.7	1	04/09/21 10:15	04/10/21 00:12	120-82-1	
1,2,4-Trimethylbenzene	87.3	ug/kg	60.3	18.0	1	04/09/21 10:15	04/10/21 00:12	95-63-6	
1,2-Dibromo-3-chloropropane	<46.8	ug/kg	301	46.8	1	04/09/21 10:15	04/10/21 00:12	96-12-8	
1,2-Dibromoethane (EDB)	<16.5	ug/kg	60.3	16.5	1	04/09/21 10:15	04/10/21 00:12	106-93-4	
1,2-Dichlorobenzene	<18.7	ug/kg	60.3	18.7	1	04/09/21 10:15	04/10/21 00:12	95-50-1	
1,2-Dichloroethane	<13.9	ug/kg	60.3	13.9	1	04/09/21 10:15	04/10/21 00:12	107-06-2	
1,2-Dichloropropane	<14.3	ug/kg	60.3	14.3	1	04/09/21 10:15	04/10/21 00:12	78-87-5	
1,3,5-Trimethylbenzene	<19.4	ug/kg	60.3	19.4	1	04/09/21 10:15	04/10/21 00:12	108-67-8	
1,3-Dichlorobenzene	<16.5	ug/kg	60.3	16.5	1	04/09/21 10:15	04/10/21 00:12	541-73-1	
1,3-Dichloropropane	<13.1	ug/kg	60.3	13.1	1	04/09/21 10:15	04/10/21 00:12	142-28-9	
1,4-Dichlorobenzene	63.3	ug/kg	60.3	16.5	1	04/09/21 10:15	04/10/21 00:12	106-46-7	
2,2-Dichloropropane	<16.3	ug/kg	60.3	16.3	1	04/09/21 10:15	04/10/21 00:12	594-20-7	
2-Chlorotoluene	<19.5	ug/kg	60.3	19.5	1	04/09/21 10:15	04/10/21 00:12	95-49-8	
4-Chlorotoluene	<22.9	ug/kg	60.3	22.9	1	04/09/21 10:15	04/10/21 00:12	106-43-4	
Benzene	33.5	ug/kg	24.1	14.3	1	04/09/21 10:15	04/10/21 00:12	71-43-2	
Bromobenzene	<23.5	ug/kg	60.3	23.5	1	04/09/21 10:15	04/10/21 00:12	108-86-1	
Bromochloromethane	<16.5	ug/kg	60.3	16.5	1	04/09/21 10:15	04/10/21 00:12	74-97-5	
Bromodichloromethane	<14.3	ug/kg	60.3	14.3	1	04/09/21 10:15	04/10/21 00:12	75-27-4	
Bromoform	<265	ug/kg	301	265	1	04/09/21 10:15	04/10/21 00:12	75-25-2	
Bromomethane	<84.5	ug/kg	301	84.5	1	04/09/21 10:15	04/10/21 00:12	74-83-9	
Carbon tetrachloride	<13.3	ug/kg	60.3	13.3	1	04/09/21 10:15	04/10/21 00:12	56-23-5	
Chlorobenzene	<7.2	ug/kg	60.3	7.2	1	04/09/21 10:15	04/10/21 00:12	108-90-7	
Chloroethane	<25.4	ug/kg	301	25.4	1	04/09/21 10:15	04/10/21 00:12	75-00-3	
Chloroform	<43.2	ug/kg	301	43.2	1	04/09/21 10:15	04/10/21 00:12	67-66-3	
Chloromethane	<22.9	ug/kg	60.3	22.9	1	04/09/21 10:15	04/10/21 00:12	74-87-3	
Dibromochloromethane	<206	ug/kg	301	206	1	04/09/21 10:15	04/10/21 00:12	124-48-1	
Dibromomethane	<17.8	ug/kg	60.3	17.8	1	04/09/21 10:15	04/10/21 00:12	74-95-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: #1 ABOVE
Pace Project No.: 40224520

Sample: #1 ABOVE **Lab ID: 40224520001** Collected: 04/01/21 09:45 Received: 04/06/21 10:00 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	<25.9	ug/kg	60.3	25.9	1	04/09/21 10:15	04/10/21 00:12	75-71-8	
Diisopropyl ether	<14.9	ug/kg	60.3	14.9	1	04/09/21 10:15	04/10/21 00:12	108-20-3	
Ethylbenzene	30.2J	ug/kg	60.3	14.3	1	04/09/21 10:15	04/10/21 00:12	100-41-4	
Hexachloro-1,3-butadiene	<120	ug/kg	301	120	1	04/09/21 10:15	04/10/21 00:12	87-68-3	
Isopropylbenzene (Cumene)	<16.3	ug/kg	60.3	16.3	1	04/09/21 10:15	04/10/21 00:12	98-82-8	
Methyl-tert-butyl ether	<17.7	ug/kg	60.3	17.7	1	04/09/21 10:15	04/10/21 00:12	1634-04-4	
Methylene Chloride	42.7J	ug/kg	60.3	16.8	1	04/09/21 10:15	04/10/21 00:12	75-09-2	
Naphthalene	<18.8	ug/kg	301	18.8	1	04/09/21 10:15	04/10/21 00:12	91-20-3	
Styrene	<15.4	ug/kg	60.3	15.4	1	04/09/21 10:15	04/10/21 00:12	100-42-5	
Tetrachloroethene	<23.4	ug/kg	60.3	23.4	1	04/09/21 10:15	04/10/21 00:12	127-18-4	
Toluene	71.4	ug/kg	60.3	15.2	1	04/09/21 10:15	04/10/21 00:12	108-88-3	
Trichloroethene	<22.5	ug/kg	60.3	22.5	1	04/09/21 10:15	04/10/21 00:12	79-01-6	
Trichlorofluoromethane	<17.5	ug/kg	60.3	17.5	1	04/09/21 10:15	04/10/21 00:12	75-69-4	
Vinyl chloride	<12.2	ug/kg	60.3	12.2	1	04/09/21 10:15	04/10/21 00:12	75-01-4	
cis-1,2-Dichloroethene	<12.9	ug/kg	60.3	12.9	1	04/09/21 10:15	04/10/21 00:12	156-59-2	
cis-1,3-Dichloropropene	<39.8	ug/kg	301	39.8	1	04/09/21 10:15	04/10/21 00:12	10061-01-5	
m&p-Xylene	191	ug/kg	121	25.4	1	04/09/21 10:15	04/10/21 00:12	179601-23-1	
n-Butylbenzene	<27.6	ug/kg	60.3	27.6	1	04/09/21 10:15	04/10/21 00:12	104-51-8	
n-Propylbenzene	22.9J	ug/kg	60.3	14.5	1	04/09/21 10:15	04/10/21 00:12	103-65-1	
o-Xylene	34.1J	ug/kg	60.3	18.1	1	04/09/21 10:15	04/10/21 00:12	95-47-6	
p-Isopropyltoluene	37.3J	ug/kg	60.3	18.3	1	04/09/21 10:15	04/10/21 00:12	99-87-6	
sec-Butylbenzene	16.1J	ug/kg	60.3	14.7	1	04/09/21 10:15	04/10/21 00:12	135-98-8	
tert-Butylbenzene	<18.9	ug/kg	60.3	18.9	1	04/09/21 10:15	04/10/21 00:12	98-06-6	
trans-1,2-Dichloroethene	<13.0	ug/kg	60.3	13.0	1	04/09/21 10:15	04/10/21 00:12	156-60-5	
trans-1,3-Dichloropropene	<172	ug/kg	301	172	1	04/09/21 10:15	04/10/21 00:12	10061-02-6	
Surrogates									
Toluene-d8 (S)	120	%	67-159		1	04/09/21 10:15	04/10/21 00:12	2037-26-5	
4-Bromofluorobenzene (S)	120	%	66-153		1	04/09/21 10:15	04/10/21 00:12	460-00-4	
1,2-Dichlorobenzene-d4 (S)	114	%	82-158		1	04/09/21 10:15	04/10/21 00:12	2199-69-1	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	9.3	%	0.10	0.10	1		04/06/21 16:36		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: #1 ABOVE
Pace Project No.: 40224520

QC Batch: 382313	Analysis Method: EPA 7471
QC Batch Method: EPA 7471	Analysis Description: 7471 Mercury
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224520001

METHOD BLANK: 2205177 Matrix: Solid
Associated Lab Samples: 40224520001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.010	0.035	04/14/21 11:22	

LABORATORY CONTROL SAMPLE: 2205178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.83	0.82	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2205179 2205180

Parameter	Units	2205179		2205180		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224520001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/kg	0.32	0.92	0.9	1.3	1.1	107	89	85-115	14	20

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QUALITY CONTROL DATA

Project: #1 ABOVE
Pace Project No.: 40224520

QC Batch: 381698 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224520001

METHOD BLANK: 2201365 Matrix: Solid
Associated Lab Samples: 40224520001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.5	2.5	04/07/21 16:31	
Barium	mg/kg	<0.15	0.50	04/07/21 16:31	
Cadmium	mg/kg	<0.13	0.50	04/07/21 16:31	
Chromium	mg/kg	<0.28	1.0	04/07/21 16:31	
Lead	mg/kg	<0.60	2.0	04/07/21 16:31	
Selenium	mg/kg	<1.3	4.0	04/07/21 16:31	
Silver	mg/kg	<0.31	1.0	04/07/21 16:31	

LABORATORY CONTROL SAMPLE: 2201366

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	52.0	104	80-120	
Barium	mg/kg	50	51.2	102	80-120	
Cadmium	mg/kg	50	50.3	101	80-120	
Chromium	mg/kg	50	50.0	100	80-120	
Lead	mg/kg	50	50.5	101	80-120	
Selenium	mg/kg	50	51.1	102	80-120	
Silver	mg/kg	25	23.3	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2201367 2201368

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224520001 Result	Spike Conc.	Spike Conc.	Result						
Arsenic	mg/kg	30.1	54.9	55	93.6	89.6	116	108	75-125	4	20
Barium	mg/kg	96.9	54.9	55	168	143	130	83	75-125	16	20 M0
Cadmium	mg/kg	1.2	54.9	55	54.5	56.6	97	101	75-125	4	20
Chromium	mg/kg	23.7	54.9	55	114	70.8	165	86	75-125	47	20 M0, R1
Lead	mg/kg	217	54.9	55	1840	231	2960	25	75-125	155	20 M0, R1
Selenium	mg/kg	<2.9	54.9	55	54.1	55.5	99	101	75-125	3	20
Silver	mg/kg	<0.67	27.5	27.5	26.6	27.0	95	96	75-125	1	20

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QUALITY CONTROL DATA

Project: #1 ABOVE
Pace Project No.: 40224520

QC Batch: 382037 Analysis Method: EPA 8260
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224520001

METHOD BLANK: 2203495 Matrix: Solid
Associated Lab Samples: 40224520001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<12.0	50.0	04/09/21 16:29	
1,1,1-Trichloroethane	ug/kg	<12.8	50.0	04/09/21 16:29	
1,1,2,2-Tetrachloroethane	ug/kg	<18.1	50.0	04/09/21 16:29	
1,1,2-Trichloroethane	ug/kg	<18.2	50.0	04/09/21 16:29	
1,1-Dichloroethane	ug/kg	<12.8	50.0	04/09/21 16:29	
1,1-Dichloroethene	ug/kg	<16.6	50.0	04/09/21 16:29	
1,1-Dichloropropene	ug/kg	<16.2	50.0	04/09/21 16:29	
1,2,3-Trichlorobenzene	ug/kg	<55.7	250	04/09/21 16:29	
1,2,3-Trichloropropane	ug/kg	<24.3	50.0	04/09/21 16:29	
1,2,4-Trichlorobenzene	ug/kg	<41.2	250	04/09/21 16:29	
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	04/09/21 16:29	
1,2-Dibromo-3-chloropropane	ug/kg	<38.8	250	04/09/21 16:29	
1,2-Dibromoethane (EDB)	ug/kg	<13.7	50.0	04/09/21 16:29	
1,2-Dichlorobenzene	ug/kg	<15.5	50.0	04/09/21 16:29	
1,2-Dichloroethane	ug/kg	<11.5	50.0	04/09/21 16:29	
1,2-Dichloropropane	ug/kg	<11.9	50.0	04/09/21 16:29	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	04/09/21 16:29	
1,3-Dichlorobenzene	ug/kg	<13.7	50.0	04/09/21 16:29	
1,3-Dichloropropane	ug/kg	<10.9	50.0	04/09/21 16:29	
1,4-Dichlorobenzene	ug/kg	<13.7	50.0	04/09/21 16:29	
2,2-Dichloropropane	ug/kg	<13.5	50.0	04/09/21 16:29	
2-Chlorotoluene	ug/kg	<16.2	50.0	04/09/21 16:29	
4-Chlorotoluene	ug/kg	<19.0	50.0	04/09/21 16:29	
Benzene	ug/kg	<11.9	20.0	04/09/21 16:29	
Bromobenzene	ug/kg	<19.5	50.0	04/09/21 16:29	
Bromochloromethane	ug/kg	<13.7	50.0	04/09/21 16:29	
Bromodichloromethane	ug/kg	<11.9	50.0	04/09/21 16:29	
Bromoform	ug/kg	<220	250	04/09/21 16:29	
Bromomethane	ug/kg	<70.1	250	04/09/21 16:29	
Carbon tetrachloride	ug/kg	<11.0	50.0	04/09/21 16:29	
Chlorobenzene	ug/kg	<6.0	50.0	04/09/21 16:29	
Chloroethane	ug/kg	<21.1	250	04/09/21 16:29	
Chloroform	ug/kg	<35.8	250	04/09/21 16:29	
Chloromethane	ug/kg	<19.0	50.0	04/09/21 16:29	
cis-1,2-Dichloroethene	ug/kg	<10.7	50.0	04/09/21 16:29	
cis-1,3-Dichloropropene	ug/kg	<33.0	250	04/09/21 16:29	
Dibromochloromethane	ug/kg	<171	250	04/09/21 16:29	
Dibromomethane	ug/kg	<14.8	50.0	04/09/21 16:29	
Dichlorodifluoromethane	ug/kg	<21.5	50.0	04/09/21 16:29	
Diisopropyl ether	ug/kg	<12.4	50.0	04/09/21 16:29	

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QUALITY CONTROL DATA

Project: #1 ABOVE
Pace Project No.: 40224520

METHOD BLANK: 2203495
Associated Lab Samples: 40224520001

Matrix: Solid

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/kg	<11.9	50.0	04/09/21 16:29	
Hexachloro-1,3-butadiene	ug/kg	<99.4	250	04/09/21 16:29	
Isopropylbenzene (Cumene)	ug/kg	<13.5	50.0	04/09/21 16:29	
m&p-Xylene	ug/kg	<21.1	100	04/09/21 16:29	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	04/09/21 16:29	
Methylene Chloride	ug/kg	<13.9	50.0	04/09/21 16:29	
n-Butylbenzene	ug/kg	<22.9	50.0	04/09/21 16:29	
n-Propylbenzene	ug/kg	<12.0	50.0	04/09/21 16:29	
Naphthalene	ug/kg	<15.6	250	04/09/21 16:29	
o-Xylene	ug/kg	<15.0	50.0	04/09/21 16:29	
p-Isopropyltoluene	ug/kg	<15.2	50.0	04/09/21 16:29	
sec-Butylbenzene	ug/kg	<12.2	50.0	04/09/21 16:29	
Styrene	ug/kg	<12.8	50.0	04/09/21 16:29	
tert-Butylbenzene	ug/kg	<15.7	50.0	04/09/21 16:29	
Tetrachloroethene	ug/kg	<19.4	50.0	04/09/21 16:29	
Toluene	ug/kg	<12.6	50.0	04/09/21 16:29	
trans-1,2-Dichloroethene	ug/kg	<10.8	50.0	04/09/21 16:29	
trans-1,3-Dichloropropene	ug/kg	<143	250	04/09/21 16:29	
Trichloroethene	ug/kg	<18.7	50.0	04/09/21 16:29	
Trichlorofluoromethane	ug/kg	<14.5	50.0	04/09/21 16:29	
Vinyl chloride	ug/kg	<10.1	50.0	04/09/21 16:29	
1,2-Dichlorobenzene-d4 (S)	%	89	82-158	04/09/21 16:29	
4-Bromofluorobenzene (S)	%	91	66-153	04/09/21 16:29	
Toluene-d8 (S)	%	95	67-159	04/09/21 16:29	

LABORATORY CONTROL SAMPLE: 2203496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2380	95	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2400	96	65-129	
1,1,2-Trichloroethane	ug/kg	2500	2450	98	70-130	
1,1-Dichloroethane	ug/kg	2500	2480	99	70-130	
1,1-Dichloroethene	ug/kg	2500	1840	73	67-120	
1,2,4-Trichlorobenzene	ug/kg	2500	1800	72	64-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2520	101	57-119	
1,2-Dibromoethane (EDB)	ug/kg	2500	2430	97	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2310	92	70-130	
1,2-Dichloroethane	ug/kg	2500	2500	100	70-130	
1,2-Dichloropropane	ug/kg	2500	2410	96	72-118	
1,3-Dichlorobenzene	ug/kg	2500	2180	87	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2170	87	70-130	
Benzene	ug/kg	2500	2280	91	70-130	
Bromodichloromethane	ug/kg	2500	2370	95	70-130	
Bromoform	ug/kg	2500	2270	91	66-130	

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QUALITY CONTROL DATA

Project: #1 ABOVE
Pace Project No.: 40224520

LABORATORY CONTROL SAMPLE: 2203496

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/kg	2500	1270	51	13-153	
Carbon tetrachloride	ug/kg	2500	2330	93	73-134	
Chlorobenzene	ug/kg	2500	2320	93	70-130	
Chloroethane	ug/kg	2500	1730	69	19-170	
Chloroform	ug/kg	2500	2430	97	79-120	
Chloromethane	ug/kg	2500	1860	75	45-117	
cis-1,2-Dichloroethene	ug/kg	2500	2200	88	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2310	92	68-130	
Dibromochloromethane	ug/kg	2500	2180	87	70-130	
Dichlorodifluoromethane	ug/kg	2500	1670	67	15-135	
Ethylbenzene	ug/kg	2500	2280	91	78-120	
Isopropylbenzene (Cumene)	ug/kg	2500	2410	96	70-130	
m&p-Xylene	ug/kg	5000	4490	90	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2390	96	65-130	
Methylene Chloride	ug/kg	2500	2260	90	70-130	
o-Xylene	ug/kg	2500	2290	92	70-130	
Styrene	ug/kg	2500	2460	99	70-130	
Tetrachloroethene	ug/kg	2500	1900	76	70-130	
Toluene	ug/kg	2500	2220	89	76-120	
trans-1,2-Dichloroethene	ug/kg	2500	2310	92	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2460	98	70-130	
Trichloroethene	ug/kg	2500	2270	91	70-130	
Trichlorofluoromethane	ug/kg	2500	1970	79	49-153	
Vinyl chloride	ug/kg	2500	1890	76	58-121	
1,2-Dichlorobenzene-d4 (S)	%			98	82-158	
4-Bromofluorobenzene (S)	%			102	66-153	
Toluene-d8 (S)	%			101	67-159	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2203497 2203498

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224684001 Result	Spike Conc.	Spike Conc.	Result						
1,1,1-Trichloroethane	ug/kg	<13.9			1040	1100			6	20	
1,1,2,2-Tetrachloroethane	ug/kg	<19.6			1060	1100			4	20	
1,1,2-Trichloroethane	ug/kg	<19.7			1190	1140			4	20	
1,1-Dichloroethane	ug/kg	<13.9			1200	1200			0	20	
1,1-Dichloroethene	ug/kg	<18.0			837	968			15	20	
1,2,4-Trichlorobenzene	ug/kg	<44.6			997	971			3	20	
1,2-Dibromo-3-chloropropane	ug/kg	<42.0			1170	1180			1	21	
1,2-Dibromoethane (EDB)	ug/kg	<14.8			1130	1130			0	20	
1,2-Dichlorobenzene	ug/kg	<16.8			1160	1180			2	20	
1,2-Dichloroethane	ug/kg	<12.5			1230	1180			5	20	
1,2-Dichloropropane	ug/kg	<12.9			1160	1120			3	20	
1,3-Dichlorobenzene	ug/kg	<14.8			1130	1140			1	20	

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QUALITY CONTROL DATA

Project: #1 ABOVE
Pace Project No.: 40224520

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2203497		2203498		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224684001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
1,4-Dichlorobenzene	ug/kg	<14.8			1070	1170			9	20	
Benzene	ug/kg	<12.9			1100	1090			1	20	
Bromodichloromethane	ug/kg	<12.9			1070	1080			1	20	
Bromoform	ug/kg	<238			1040	1050			1	20	
Bromomethane	ug/kg	<75.9			701	672			4	20	
Carbon tetrachloride	ug/kg	<11.9			1000	1090			9	20	
Chlorobenzene	ug/kg	<6.5			1130	1130			0	20	
Chloroethane	ug/kg	<22.9			1140	1020			11	20	
Chloroform	ug/kg	<38.8			1160	1160			0	20	
Chloromethane	ug/kg	<20.6			1150	1180			3	20	
cis-1,2-Dichloroethene	ug/kg	<11.6			1060	1040			2	20	
cis-1,3-Dichloropropene	ug/kg	<35.7			1080	1080			0	20	
Dibromochloromethane	ug/kg	<185			978	994			2	20	
Dichlorodifluoromethane	ug/kg	<23.3			1040	1360			26	25 R1	
Ethylbenzene	ug/kg	<12.9			1120	1110			1	20	
Isopropylbenzene (Cumene)	ug/kg	<14.6			1170	1190			2	20	
m&p-Xylene	ug/kg	<22.9			2210	2350			6	20	
Methyl-tert-butyl ether	ug/kg	<15.9			1090	1120			2	20	
Methylene Chloride	ug/kg	24.7J			1150	1140			1	20	
o-Xylene	ug/kg	<16.2			1170	1130			3	20	
Styrene	ug/kg	<13.9			1190	1220			2	20	
Tetrachloroethene	ug/kg	<21.0			896	911			2	20	
Toluene	ug/kg	<13.6			1090	1060			3	20	
trans-1,2-Dichloroethene	ug/kg	<11.7			1100	1110			0	20	
trans-1,3-Dichloropropene	ug/kg	<155			1180	1180			0	20	
Trichloroethene	ug/kg	<20.3			1020	1050			3	20	
Trichlorofluoromethane	ug/kg	<15.7			907	1040			14	21	
Vinyl chloride	ug/kg	<10.9			1010	1080			7	20	
1,2-Dichlorobenzene-d4 (S)	%						94	105	82-158		
4-Bromofluorobenzene (S)	%						104	114	66-153		
Toluene-d8 (S)	%						109	110	67-159		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: #1 ABOVE
Pace Project No.: 40224520

QC Batch: 381958	Analysis Method: EPA 8082
QC Batch Method: EPA 3541	Analysis Description: 8082 GCS PCB
	Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224520001

METHOD BLANK: 2202967 Matrix: Solid

Associated Lab Samples: 40224520001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<15.2	50.0	04/12/21 11:03	
PCB-1221 (Aroclor 1221)	ug/kg	<15.2	50.0	04/12/21 11:03	
PCB-1232 (Aroclor 1232)	ug/kg	<15.2	50.0	04/12/21 11:03	
PCB-1242 (Aroclor 1242)	ug/kg	<15.2	50.0	04/12/21 11:03	
PCB-1248 (Aroclor 1248)	ug/kg	<15.2	50.0	04/12/21 11:03	
PCB-1254 (Aroclor 1254)	ug/kg	<15.2	50.0	04/12/21 11:03	
PCB-1260 (Aroclor 1260)	ug/kg	<15.2	50.0	04/12/21 11:03	
Decachlorobiphenyl (S)	%	79	47-114	04/12/21 11:03	
Tetrachloro-m-xylene (S)	%	87	67-102	04/12/21 11:03	

LABORATORY CONTROL SAMPLE: 2202968

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	411	82	69-115	
Decachlorobiphenyl (S)	%			78	47-114	
Tetrachloro-m-xylene (S)	%			89	67-102	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2202969 2202970

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40224684001 Result	Spike Conc.	Spike Conc.	Result						
PCB-1016 (Aroclor 1016)	ug/kg	<15.8			<15.8	<15.8					20
PCB-1221 (Aroclor 1221)	ug/kg	<15.8			<15.8	<15.8					20
PCB-1232 (Aroclor 1232)	ug/kg	<15.8			<15.8	<15.8					20
PCB-1242 (Aroclor 1242)	ug/kg	<15.8			<15.8	<15.8					20
PCB-1248 (Aroclor 1248)	ug/kg	<15.8			<15.8	<15.8					20
PCB-1254 (Aroclor 1254)	ug/kg	<15.8			<15.8	<15.8					20
PCB-1260 (Aroclor 1260)	ug/kg	<15.8	520	519	401	398	77	77	45-120	1	20
Decachlorobiphenyl (S)	%						74	75	47-114		
Tetrachloro-m-xylene (S)	%						87	87	67-102		

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QUALITY CONTROL DATA

Project: #1 ABOVE
Pace Project No.: 40224520

QC Batch: 382236 Analysis Method: EPA 8270E by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270E/3546 MSSV PAH by SIM
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224520001

METHOD BLANK: 2204839 Matrix: Solid
Associated Lab Samples: 40224520001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.4	16.7	04/13/21 12:33	
2-Methylnaphthalene	ug/kg	<2.4	16.7	04/13/21 12:33	
Acenaphthene	ug/kg	<2.2	16.7	04/13/21 12:33	
Acenaphthylene	ug/kg	<2.1	16.7	04/13/21 12:33	
Anthracene	ug/kg	<2.1	16.7	04/13/21 12:33	
Benzo(a)anthracene	ug/kg	<2.2	16.7	04/13/21 12:33	
Benzo(a)pyrene	ug/kg	<1.9	16.7	04/13/21 12:33	
Benzo(b)fluoranthene	ug/kg	<2.3	16.7	04/13/21 12:33	
Benzo(g,h,i)perylene	ug/kg	<2.9	16.7	04/13/21 12:33	
Benzo(k)fluoranthene	ug/kg	<2.1	16.7	04/13/21 12:33	
Chrysene	ug/kg	<3.2	16.7	04/13/21 12:33	
Dibenz(a,h)anthracene	ug/kg	<2.3	16.7	04/13/21 12:33	
Fluoranthene	ug/kg	<2.0	16.7	04/13/21 12:33	
Fluorene	ug/kg	<2.0	16.7	04/13/21 12:33	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.5	16.7	04/13/21 12:33	
Naphthalene	ug/kg	<1.6	16.7	04/13/21 12:33	
Phenanthrene	ug/kg	<1.9	16.7	04/13/21 12:33	
Pyrene	ug/kg	<2.5	16.7	04/13/21 12:33	
2-Fluorobiphenyl (S)	%	72	36-86	04/13/21 12:33	
Terphenyl-d14 (S)	%	86	41-97	04/13/21 12:33	

LABORATORY CONTROL SAMPLE: 2204840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	334	251	75	53-100	
2-Methylnaphthalene	ug/kg	334	253	76	51-97	
Acenaphthene	ug/kg	334	259	78	62-120	
Acenaphthylene	ug/kg	334	264	79	61-120	
Anthracene	ug/kg	334	275	82	62-111	
Benzo(a)anthracene	ug/kg	334	281	84	61-120	
Benzo(a)pyrene	ug/kg	334	299	90	65-120	
Benzo(b)fluoranthene	ug/kg	334	278	83	64-108	
Benzo(g,h,i)perylene	ug/kg	334	260	78	71-120	
Benzo(k)fluoranthene	ug/kg	334	286	86	76-120	
Chrysene	ug/kg	334	261	78	74-120	
Dibenz(a,h)anthracene	ug/kg	334	283	85	71-120	
Fluoranthene	ug/kg	334	291	87	67-112	
Fluorene	ug/kg	334	265	79	65-120	
Indeno(1,2,3-cd)pyrene	ug/kg	334	299	90	74-120	

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QUALITY CONTROL DATA

Project: #1 ABOVE
Pace Project No.: 40224520

LABORATORY CONTROL SAMPLE: 2204840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	334	254	76	53-120	
Phenanthrene	ug/kg	334	278	83	67-120	
Pyrene	ug/kg	334	304	91	60-103	
2-Fluorobiphenyl (S)	%			75	36-86	
Terphenyl-d14 (S)	%			89	41-97	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2204841 2204842

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40224481008 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
1-Methylnaphthalene	ug/kg	<0.029 mg/kg	390	391	270	241	69	62	41-100	11	29	
2-Methylnaphthalene	ug/kg	<0.029 mg/kg	390	391	274	237	70	61	42-97	14	21	
Acenaphthene	ug/kg	<0.025 mg/kg	390	391	262	246	67	63	43-120	6	27	
Acenaphthylene	ug/kg	<0.025 mg/kg	390	391	265	241	68	62	51-120	9	26	
Anthracene	ug/kg	<0.024 mg/kg	390	391	271	261	69	67	46-111	4	29	
Benzo(a)anthracene	ug/kg	0.033J mg/kg	390	391	304	307	70	70	48-120	1	23	
Benzo(a)pyrene	ug/kg	<0.022 mg/kg	390	391	287	290	70	70	46-108	1	30	
Benzo(b)fluoranthene	ug/kg	<0.027 mg/kg	390	391	287	296	69	71	45-108	3	30	
Benzo(g,h,i)perylene	ug/kg	<0.034 mg/kg	390	391	231	221	56	53	39-120	4	37	
Benzo(k)fluoranthene	ug/kg	<0.025 mg/kg	390	391	304	289	75	71	47-120	5	31	
Chrysene	ug/kg	<0.037 mg/kg	390	391	282	276	68	66	54-120	2	21	
Dibenz(a,h)anthracene	ug/kg	<0.027 mg/kg	390	391	230	218	59	56	46-120	5	34	
Fluoranthene	ug/kg	0.027J mg/kg	390	391	301	312	70	73	53-112	4	27	
Fluorene	ug/kg	<0.023 mg/kg	390	391	257	269	66	69	48-120	5	29	
Indeno(1,2,3-cd)pyrene	ug/kg	<0.041 mg/kg	390	391	241	233	60	58	40-120	3	34	
Naphthalene	ug/kg	<0.019 mg/kg	390	391	267	258	69	66	47-120	4	25	D3
Phenanthrene	ug/kg	<0.022 mg/kg	390	391	279	269	68	66	49-120	4	28	
Pyrene	ug/kg	0.031J mg/kg	390	391	289	275	66	62	43-103	5	31	
2-Fluorobiphenyl (S)	%						64	59	36-86			
Terphenyl-d14 (S)	%						61	54	41-97			

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QUALITY CONTROL DATA

Project: #1 ABOVE

Pace Project No.: 40224520

QC Batch: 381678

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40224520001

SAMPLE DUPLICATE: 2201298

Parameter	Units	40224501003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.7	4.5	4	10	

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QUALIFIERS

Project: #1 ABOVE

Pace Project No.: 40224520

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 - Estimated concentration at or above the LOD and below the LOQ.

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.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: #1 ABOVE
Pace Project No.: 40224520

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40224520001	#1 ABOVE	EPA 3541	381958	EPA 8082	381959
40224520001	#1 ABOVE	EPA 3050	381698	EPA 6010	381803
40224520001	#1 ABOVE	EPA 7471	382313	EPA 7471	382422
40224520001	#1 ABOVE	EPA 3546	382236	EPA 8270E by SIM	382305
40224520001	#1 ABOVE	EPA 5035/5030B	382037	EPA 8260	382038
40224520001	#1 ABOVE	ASTM D2974-87	381678		

REPORT OF LABORATORY ANALYSIS

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 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
	Document No.: ENV-FRM-GBAY-0014-Rev.00	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Marquette Marine Project #: _____

Courier: CS Logistics Fed Ex Speedee UPS Walto


Client Pace Other: _____

Tracking #: 12 578 899 01 6555 8376

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

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

WO#: 40224520



40224520

Packing Material: Bubble Wrap Bubble Bags None Other Melt water only 4-6-21 SW

Thermometer Used SR - 104 Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 11 /ICorr: 11 ML 4-6-21

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: 4-6-21 /Initials: SKW

Labeled By Initials: ML

Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1. <u>7CC</u> <u>4-6-21 SKW</u>
Chain of Custody Filled Out: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>Pg #, Filter, Preserve, Mail & Inv. Info</u> <u>4-6-21 SKW</u>
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. _____
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4. <u>Signature</u> <u>ML 4-6-21</u>
Samples Arrived within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. _____
- VOA Samples frozen upon receipt <input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time: _____
Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. _____
Rush Turn Around Time Requested: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. _____
Sufficient Volume: For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8. <u>Lab received extra PFAS bottle</u> <u>ML 4-6-21</u>
Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9. _____
-Pace Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	_____
-Pace IR Containers Used: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	_____
Containers Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10. _____
Filtered volume received for Dissolved tests <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. _____
Sample Labels match COC: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>See comments.</u> <u>4-6-21 SKW</u>
-Includes date/time/ID/Analysis Matrix: <u>S</u>	_____
Trip Blank Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13. _____
Trip Blank Custody Seals Present <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	_____
Pace Trip Blank Lot # (if purchased): _____	_____

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: Client had 1 sandwich size bag of melt water. Client used water, soluble ink - majority of labels, relied on indentation. SR manager determined and verified placement. PM informed. 4-6-21 SKW

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

GENERAL SHEET NOTES

- SEE GENERAL SHEET NOTES FOR ALL NOTES AND SPECIFICATIONS.
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SHEET KEYNOTES

- UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN FEET AND INCHES.
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1150 Springhurst Drive,
Suite 201
Green Bay, WI 54304
920/592-9440

www.graef-usa.com

CLIENT

FINCANTIERI
MARINETTE MARINE

PROJECT TITLE

BUILDING 34 - HULL BLOCK ERECT
BUILDING

1630 ELY ST
MARINETTE, WI 54143

ISSUE

10/12/2020 FOOTINGS AND
FOUNDATIONS SET
1 12/04/2020 PLAN REVIEW SET



KEY PLAN

PROJECT INFORMATION

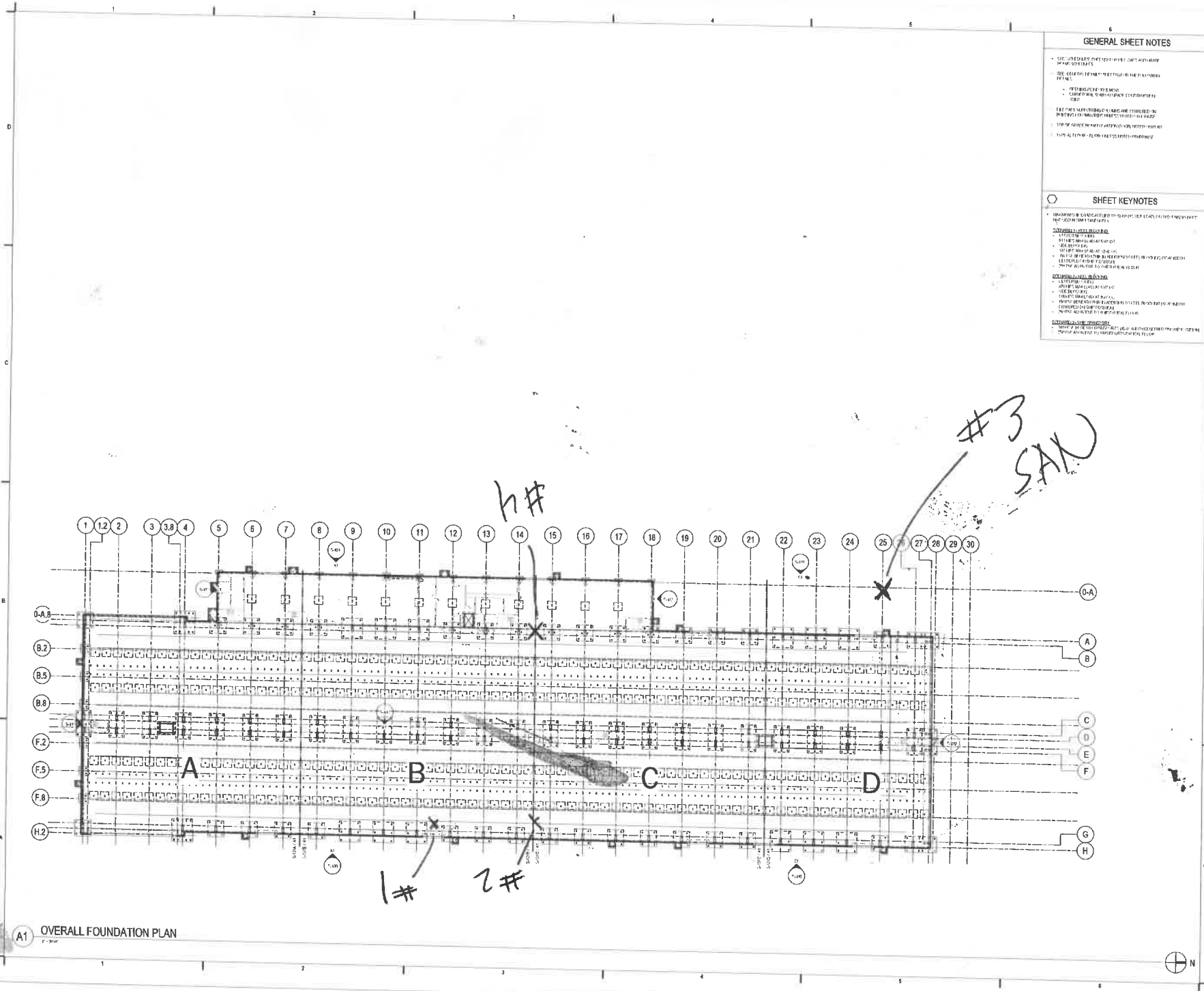
PROJECT NUMBER: 2020-0450-34
DATE: 09/02/2020
DRAWN BY: AMZ
CHECKED BY: JRP
APPROVED BY: JSR
SCALE: AS NOTED

SHEET TITLE

OVERALL FOUNDATION PLAN

SHEET NUMBER

B-34-
S-101



A1 OVERALL FOUNDATION PLAN

BIM 360://fincantieri/2020/0450-34_S101.rvt
 12/02/2020 2:38:20 PM