DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 128TH AIR REFUELING WING (ANG)

31 May 2022

MEMORANDUM FOR WISCONSIN DEPARTMENT OF NATURAL RESOURCES

FROM: 128 CES/CEIE
1919 E Grange Ave
Milwaukee WI 53207-6142

SUBJECT: Materials Management Plan – BRRTS # 02-41-582725

1. Pursuant to Wisconsin Administrative Code NR 718, a materials management plan (MMP) is required for materials that could be removed that contain contaminants of concern. This memorandum serves as the material management plan that the 128th Air Refueling Wing will follow during construction related to the renovation of building 522. This material management plan provides the process for handling soil and water that have the potential to contain contaminants of concern.

2. **Building 522 Site Soil Results –** With the renovation of Building 522 it was determined in concert with the Wisconsin Department of Natural Resources that a soils management plan for the management of perfluorinated contaminated soils should be established. After sampling multiple areas around the building it was determined that perfluorinated compounds were present in both the soils and groundwater. Data for this determination was collected from the sampling report for Building 522 and the FY16 Phase 1 Regional Site Inspection for Perflourinated Compounds report. Perflourinated compounds were detected in all soil samples in the vicinity of building 522. Concentrations of PFOS ranged from non-detect to 76 ug/kg. Concentrations of PFOA ranged from 0.347 to 2.7 ug/kg. Sample report and map is attached to this letter. A copy of the FY16 Phase 1 Regional Site Inspection for Perflourinated Compounds can be located on the BRRTS website.

3. **Site Soil Handling and Disposition** – Soil from construction activities will fall into two major categories with different disposition procedures. Implementation for this soil management plan is expected to occur from June 2022 – October 2022 as the building renovation progresses.

- Soils with perfluorinated compounds will be used as fill within the project site pursuant to that the fill location will ultimately be an impervious surface. Current estimated soils to be managed in this option is 10-20 cubic yards.
- Soils with perfluorinated compounds may be used in pervious areas within the project site so long as the site conforms to NR 718.12 and is covered with minimum of one foot of clean soil, top soil, and seeded. The location for soils to be reused would on the south east corner of Building 522. This location is greater than 100 feet from the drainage ditch which has wetland characteristics however is not delinated as wetland per the Wisconsin Department of Natural Resources Surface Water Data Viewer database. Additionally, this ditch was determined as a non-navigable waterway in the past. This location poses no threat to public health, safety, or welfare for the environment as it is located on an industrial facility with a closed fenceline. Additionally, contaiminated soils would be covered with clean soil therefore no direct contact can be made with contaminated soils. All contaminated soils in this area would be under both the industrial direct contact residual contact limit (RCL) and the non-industrial direct contact RCL. Only soils that were previously located in a pervious area (i.e. grass/gravel cover) will be reutilized under future planned pervious areas. Soils will be removed and placed next to the excavation and then replaced in same footprint, in order to not introduce any additional contamination than what was previously there. This operation will prevent any increased risk for a pathway to groundwater as compared to if the soil was undisturbed by construction activities. Current estimated soils to be be managed in this option is 30-40 cubic yards.

- Soils will be disposed of at a licensed solid waste facility. Prior to disposal soils will be stored on site in accordance with NR 718.05(2). Current estimated soil to be managed in this option is approximately 70-90 cubic yards.

4. **Building 522 Site Water Results** – Based upon the Site Inspection report groundwater in the area flows from south to north in the area. Groundwater was sampled during the Site Inspection from CB018A-MW0291 and had detections of 0.74 ug/L PFOS and 0.0799 ug/L PFOA.

5. **Site Water Handling and Disposition** – Dewatering is not expected to occur during this renovation project. However, if it were determined to occur the contractor will be required to provide totes/storage containers for all potentially contaminated water. Results of dwatering samples will be used to determine final disposition in coordination with the Wisconsin Department of Natural Resources. Water will not be discharged until either a proper WPDES dewatering permit is obtained, or will be transported to and disposed of at a licensed treatment facility.

6. The above and attached is the 128th Air Refueling Wing's approach to material management for Building 522 renovation work relatd to BRRTS # 02-41-582725 at General Mitchell Field, Milwaukee, Wisconsin.

7. If you have any additional questions, please feel free to contact me at 414-944-8414 or brian.schrader.1@us.af.mil at any time. Thank you in advance for your review of this material management plan.

BRIAN J. SCHRADER, Capt, WI ANG
Environmental Scientist

Attachments:

1. Sample Location Map
2. Building 522 Soil Sample Results
3. Navigability Determination Letter
4. Surface Water Data Viewer Map

AIR NATIONAL GUARD
128th Air Refueling Wing
Milwaukee, Wisconsin

NW 1/4 Section 34
Township 6 N, Range 22 East
Milwaukee County, Wisconsin

Soil Sampling Locations

	Latitude	Longitude
Sample #1	42.93989 N	87.88901 W
Sample #2	42.83991 N	87.88946 W
Sample #3	42.93978 N	87.88959 W
Sample #4	42.94063 N	87.88952 W

0 25 50 75 100 Feet

N

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

April 20, 2022

Tom Sweet
Moraine Environmental, Inc.
766 Tower Drive
Fredonia, WI 53021

RE: Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Dear Tom Sweet:

Enclosed are the analytical results for sample(s) received by the laboratory on April 12, 2022. 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,

Steven Mleczko
steve.mleczko@pacelabs.com
(920)469-2436
Project Manager

Enclosures

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

CERTIFICATIONS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

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

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

SAMPLE SUMMARY

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40243288001	**1**	Solid	04/08/22 10:30	04/12/22 08:25
40243288002	**2**	Solid	04/08/22 10:10	04/12/22 08:25
40243288003	**3**	Solid	04/08/22 09:45	04/12/22 08:25
40243288004	**4**	Solid	04/08/22 11:00	04/12/22 08:25

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

SAMPLE ANALYTE COUNT

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40243288001	**1**	EPA 8082A	BLM	10	PASI-G
		EPA 6010D	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270E	TPO	70	PASI-G
		EPA 8260	ALD	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40243288002	**2**	EPA 8082A	BLM	10	PASI-G
		EPA 6010D	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270E	TPO	70	PASI-G
		EPA 8260	ALD	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40243288003	**3**	EPA 8082A	BLM	10	PASI-G
		EPA 6010D	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270E	TPO	70	PASI-G
		EPA 8260	ALD	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40243288004	**4**	EPA 8082A	BLM	10	PASI-G
		EPA 6010D	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270E	TPO	70	PASI-G
		EPA 8260	ALD	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G

PASI-G = Pace Analytical Services - Green Bay

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

SUMMARY OF DETECTION

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40243288001	**1**					
EPA 6010D	Arsenic	5.7J	mg/kg	6.3	04/14/22 11:51	D3
EPA 6010D	Barium	68.1	mg/kg	1.3	04/14/22 11:51	M0
EPA 6010D	Chromium	25.2	mg/kg	2.5	04/14/22 11:51	M0
EPA 6010D	Lead	12.8	mg/kg	5.0	04/14/22 11:51	
EPA 7471	Mercury	0.031J	mg/kg	0.040	04/19/22 09:27	
EPA 8270E	Anthracene	299J	ug/kg	448	04/18/22 21:05	
EPA 8270E	Benzo(a)anthracene	571	ug/kg	434	04/18/22 21:05	
EPA 8270E	Benzo(a)pyrene	494	ug/kg	421	04/18/22 21:05	
EPA 8270E	Benzo(b)fluoranthene	567	ug/kg	481	04/18/22 21:05	
EPA 8270E	Benzo(g,h,i)perylene	310J	ug/kg	733	04/18/22 21:05	
EPA 8270E	Benzo(k)fluoranthene	258J	ug/kg	670	04/18/22 21:05	
EPA 8270E	Chrysene	516	ug/kg	419	04/18/22 21:05	
EPA 8270E	Fluoranthene	1300	ug/kg	396	04/18/22 21:05	
EPA 8270E	Indeno(1,2,3-cd)pyrene	313J	ug/kg	606	04/18/22 21:05	
EPA 8270E	Phenanthrene	939	ug/kg	359	04/18/22 21:05	
EPA 8270E	Pyrene	1010	ug/kg	621	04/18/22 21:05	
ASTM D2974-87	Percent Moisture	20.6	%	0.10	04/13/22 13:11	
40243288002	**2**					
EPA 8082A	PCB-1254 (Aroclor 1254)	95.5	ug/kg	62.4	04/13/22 21:05	
EPA 8082A	PCB-1260 (Aroclor 1260)	50.5J	ug/kg	62.4	04/13/22 21:05	
EPA 8082A	PCB, Total	146	ug/kg	62.4	04/13/22 21:05	
EPA 6010D	Arsenic	3.5	mg/kg	3.0	04/13/22 16:14	
EPA 6010D	Barium	53.5	mg/kg	0.60	04/13/22 16:14	
EPA 6010D	Cadmium	0.28J	mg/kg	0.60	04/13/22 16:14	
EPA 6010D	Chromium	17.2	mg/kg	1.2	04/13/22 16:14	
EPA 6010D	Lead	8.6	mg/kg	2.4	04/13/22 16:14	
EPA 7471	Mercury	0.030J	mg/kg	0.042	04/19/22 09:29	
ASTM D2974-87	Percent Moisture	19.8	%	0.10	04/13/22 13:11	
40243288003	**3**					
EPA 6010D	Arsenic	9.3	mg/kg	2.9	04/13/22 16:24	
EPA 6010D	Barium	82.0	mg/kg	0.58	04/13/22 16:24	
EPA 6010D	Cadmium	0.18J	mg/kg	0.58	04/13/22 16:24	
EPA 6010D	Chromium	29.5	mg/kg	1.2	04/13/22 16:24	
EPA 6010D	Lead	17.9	mg/kg	2.3	04/13/22 16:24	
EPA 7471	Mercury	0.016J	mg/kg	0.043	04/19/22 09:32	
ASTM D2974-87	Percent Moisture	21.1	%	0.10	04/13/22 13:11	
40243288004	**4**					
EPA 6010D	Arsenic	5.9J	mg/kg	6.0	04/14/22 12:05	D3
EPA 6010D	Barium	62.4	mg/kg	1.2	04/14/22 12:05	
EPA 6010D	Chromium	12.4	mg/kg	2.4	04/14/22 12:05	
EPA 6010D	Lead	17.8	mg/kg	4.8	04/14/22 12:05	
EPA 7471	Mercury	0.019J	mg/kg	0.040	04/19/22 09:34	
EPA 8270E	Anthracene	955	ug/kg	452	04/18/22 20:23	
EPA 8270E	Benzo(a)anthracene	1430	ug/kg	438	04/18/22 20:23	
EPA 8270E	Benzo(a)pyrene	1010	ug/kg	426	04/18/22 20:23	
EPA 8270E	Benzo(b)fluoranthene	1350	ug/kg	486	04/18/22 20:23	

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

SUMMARY OF DETECTION

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40243288004	**4**					
EPA 8270E	Benzo(g,h,i)perylene	601J	ug/kg	740	04/18/22 20:23	
EPA 8270E	Benzo(k)fluoranthene	508J	ug/kg	677	04/18/22 20:23	
EPA 8270E	Carbazole	222J	ug/kg	443	04/18/22 20:23	
EPA 8270E	Chrysene	1310	ug/kg	423	04/18/22 20:23	
EPA 8270E	Dibenzofuran	307J	ug/kg	342	04/18/22 20:23	
EPA 8270E	Fluoranthene	3710	ug/kg	400	04/18/22 20:23	
EPA 8270E	Fluorene	522	ug/kg	331	04/18/22 20:23	
EPA 8270E	Indeno(1,2,3-cd)pyrene	706	ug/kg	612	04/18/22 20:23	
EPA 8270E	Phenanthrene	3230	ug/kg	363	04/18/22 20:23	
EPA 8270E	Pyrene	2600	ug/kg	627	04/18/22 20:23	
EPA 8260	Naphthalene	72.4J	ug/kg	386	04/14/22 12:34	
ASTM D2974-87	Percent Moisture	21.4	%	0.10	04/13/22 13:11	

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 1 **Lab ID: 40243288001** Collected: 04/08/22 10:30 Received: 04/12/22 08:25 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<19.2**	ug/kg	63.1	19.2	1	04/13/22 02:37	04/13/22 20:41	12674-11-2	
PCB-1221 (Aroclor 1221)	**<19.2**	ug/kg	63.1	19.2	1	04/13/22 02:37	04/13/22 20:41	11104-28-2	
PCB-1232 (Aroclor 1232)	**<19.2**	ug/kg	63.1	19.2	1	04/13/22 02:37	04/13/22 20:41	11141-16-5	
PCB-1242 (Aroclor 1242)	**<19.2**	ug/kg	63.1	19.2	1	04/13/22 02:37	04/13/22 20:41	53469-21-9	
PCB-1248 (Aroclor 1248)	**<19.2**	ug/kg	63.1	19.2	1	04/13/22 02:37	04/13/22 20:41	12672-29-6	
PCB-1254 (Aroclor 1254)	**<19.2**	ug/kg	63.1	19.2	1	04/13/22 02:37	04/13/22 20:41	11097-69-1	
PCB-1260 (Aroclor 1260)	**<19.2**	ug/kg	63.1	19.2	1	04/13/22 02:37	04/13/22 20:41	11096-82-5	
PCB, Total	**<19.2**	ug/kg	63.1	19.2	1	04/13/22 02:37	04/13/22 20:41	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	82	%	50-99		1	04/13/22 02:37	04/13/22 20:41	877-09-8	
Decachlorobiphenyl (S)	64	%	38-95		1	04/13/22 02:37	04/13/22 20:41	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**5.7J**	mg/kg	6.3	3.7	2	04/13/22 07:26	04/14/22 11:51	7440-38-2	D3
Barium	**68.1**	mg/kg	1.3	0.38	2	04/13/22 07:26	04/14/22 11:51	7440-39-3	M0
Cadmium	**<0.33**	mg/kg	1.3	0.33	2	04/13/22 07:26	04/14/22 11:51	7440-43-9	D3
Chromium	**25.2**	mg/kg	2.5	0.70	2	04/13/22 07:26	04/14/22 11:51	7440-47-3	M0
Lead	**12.8**	mg/kg	5.0	1.5	2	04/13/22 07:26	04/14/22 11:51	7439-92-1	
Selenium	**<3.3**	mg/kg	10.1	3.3	2	04/13/22 07:26	04/14/22 11:51	7782-49-2	D3
Silver	**<0.77**	mg/kg	2.5	0.77	2	04/13/22 07:26	04/14/22 11:51	7440-22-4	D3
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**0.031J**	mg/kg	0.040	0.011	1	04/18/22 10:05	04/19/22 09:27	7439-97-6	
8270E MSSV FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<298**	ug/kg	993	298	4	04/14/22 10:23	04/18/22 21:05	83-32-9	
Acenaphthylene	**<300**	ug/kg	999	300	4	04/14/22 10:23	04/18/22 21:05	208-96-8	
Anthracene	**299J**	ug/kg	448	134	4	04/14/22 10:23	04/18/22 21:05	120-12-7	
Benzo(a)anthracene	**571**	ug/kg	434	130	4	04/14/22 10:23	04/18/22 21:05	56-55-3	
Benzo(a)pyrene	**494**	ug/kg	421	126	4	04/14/22 10:23	04/18/22 21:05	50-32-8	
Benzo(b)fluoranthene	**567**	ug/kg	481	144	4	04/14/22 10:23	04/18/22 21:05	205-99-2	
Benzo(g,h,i)perylene	**310J**	ug/kg	733	220	4	04/14/22 10:23	04/18/22 21:05	191-24-2	
Benzo(k)fluoranthene	**258J**	ug/kg	670	201	4	04/14/22 10:23	04/18/22 21:05	207-08-9	
4-Bromophenylphenyl ether	**<176**	ug/kg	586	176	4	04/14/22 10:23	04/18/22 21:05	101-55-3	
Butylbenzylphthalate	**<135**	ug/kg	449	135	4	04/14/22 10:23	04/18/22 21:05	85-68-7	
Carbazole	**<132**	ug/kg	438	132	4	04/14/22 10:23	04/18/22 21:05	86-74-8	
4-Chloro-3-methylphenol	**<261**	ug/kg	871	261	4	04/14/22 10:23	04/18/22 21:05	59-50-7	
4-Chloroaniline	**<138**	ug/kg	460	138	4	04/14/22 10:23	04/18/22 21:05	106-47-8	1q
bis(2-Chloroethoxy)methane	**<226**	ug/kg	754	226	4	04/14/22 10:23	04/18/22 21:05	111-91-1	
bis(2-Chloroethyl) ether	**<262**	ug/kg	874	262	4	04/14/22 10:23	04/18/22 21:05	111-44-4	
2-Chloronaphthalene	**<108**	ug/kg	360	108	4	04/14/22 10:23	04/18/22 21:05	91-58-7	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 1 **Lab ID: 40243288001** Collected: 04/08/22 10:30 Received: 04/12/22 08:25 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 FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
2-Chlorophenol	**<210**	ug/kg	699	210	4	04/14/22 10:23	04/18/22 21:05	95-57-8	
4-Chlorophenylphenyl ether	**<156**	ug/kg	522	156	4	04/14/22 10:23	04/18/22 21:05	7005-72-3	
Chrysene	**516**	ug/kg	419	126	4	04/14/22 10:23	04/18/22 21:05	218-01-9	
Dibenz(a,h)anthracene	**<228**	ug/kg	761	228	4	04/14/22 10:23	04/18/22 21:05	53-70-3	
Dibenzofuran	**<102**	ug/kg	339	102	4	04/14/22 10:23	04/18/22 21:05	132-64-9	
1,2-Dichlorobenzene	**<264**	ug/kg	880	264	4	04/14/22 10:23	04/18/22 21:05	95-50-1	
1,3-Dichlorobenzene	**<116**	ug/kg	388	116	4	04/14/22 10:23	04/18/22 21:05	541-73-1	
1,4-Dichlorobenzene	**<117**	ug/kg	390	117	4	04/14/22 10:23	04/18/22 21:05	106-46-7	
3,3'-Dichlorobenzidine	**<228**	ug/kg	760	228	4	04/14/22 10:23	04/18/22 21:05	91-94-1	
2,4-Dichlorophenol	**<224**	ug/kg	748	224	4	04/14/22 10:23	04/18/22 21:05	120-83-2	
Diethylphthalate	**<139**	ug/kg	464	139	4	04/14/22 10:23	04/18/22 21:05	84-66-2	
2,4-Dimethylphenol	**<166**	ug/kg	554	166	4	04/14/22 10:23	04/18/22 21:05	105-67-9	
Dimethylphthalate	**<109**	ug/kg	364	109	4	04/14/22 10:23	04/18/22 21:05	131-11-3	
Di-n-butylphthalate	**<126**	ug/kg	419	126	4	04/14/22 10:23	04/18/22 21:05	84-74-2	
4,6-Dinitro-2-methylphenol	**<259**	ug/kg	863	259	4	04/14/22 10:23	04/18/22 21:05	534-52-1	
2,4-Dinitrophenol	**<256**	ug/kg	853	256	4	04/14/22 10:23	04/18/22 21:05	51-28-5	
2,4-Dinitrotoluene	**<120**	ug/kg	400	120	4	04/14/22 10:23	04/18/22 21:05	121-14-2	
2,6-Dinitrotoluene	**<159**	ug/kg	532	159	4	04/14/22 10:23	04/18/22 21:05	606-20-2	
Di-n-octylphthalate	**<189**	ug/kg	630	189	4	04/14/22 10:23	04/18/22 21:05	117-84-0	
bis(2-Ethylhexyl)phthalate	**<140**	ug/kg	466	140	4	04/14/22 10:23	04/18/22 21:05	117-81-7	
Fluoranthene	**1300**	ug/kg	396	119	4	04/14/22 10:23	04/18/22 21:05	206-44-0	
Fluorene	**<98.2**	ug/kg	327	98.2	4	04/14/22 10:23	04/18/22 21:05	86-73-7	
Hexachloro-1,3-butadiene	**<214**	ug/kg	713	214	4	04/14/22 10:23	04/18/22 21:05	87-68-3	
Hexachlorobenzene	**<141**	ug/kg	471	141	4	04/14/22 10:23	04/18/22 21:05	118-74-1	
Hexachlorocyclopentadiene	**<199**	ug/kg	663	199	4	04/14/22 10:23	04/18/22 21:05	77-47-4	
Hexachloroethane	**<134**	ug/kg	448	134	4	04/14/22 10:23	04/18/22 21:05	67-72-1	
Indeno(1,2,3-cd)pyrene	**313J**	ug/kg	606	182	4	04/14/22 10:23	04/18/22 21:05	193-39-5	
Isophorone	**<129**	ug/kg	430	129	4	04/14/22 10:23	04/18/22 21:05	78-59-1	
2-Methylnaphthalene	**<218**	ug/kg	727	218	4	04/14/22 10:23	04/18/22 21:05	91-57-6	
2-Methylphenol(o-Cresol)	**<153**	ug/kg	509	153	4	04/14/22 10:23	04/18/22 21:05	95-48-7	
3&4-Methylphenol(m&p Cresol)	**<154**	ug/kg	513	154	4	04/14/22 10:23	04/18/22 21:05		
Naphthalene	**<294**	ug/kg	979	294	4	04/14/22 10:23	04/18/22 21:05	91-20-3	
2-Nitroaniline	**<239**	ug/kg	798	239	4	04/14/22 10:23	04/18/22 21:05	88-74-4	
3-Nitroaniline	**<143**	ug/kg	476	143	4	04/14/22 10:23	04/18/22 21:05	99-09-2	
4-Nitroaniline	**<349**	ug/kg	1160	349	4	04/14/22 10:23	04/18/22 21:05	100-01-6	
Nitrobenzene	**<170**	ug/kg	568	170	4	04/14/22 10:23	04/18/22 21:05	98-95-3	
2-Nitrophenol	**<265**	ug/kg	884	265	4	04/14/22 10:23	04/18/22 21:05	88-75-5	
4-Nitrophenol	**<212**	ug/kg	705	212	4	04/14/22 10:23	04/18/22 21:05	100-02-7	
N-Nitroso-di-n-propylamine	**<133**	ug/kg	444	133	4	04/14/22 10:23	04/18/22 21:05	621-64-7	
N-Nitrosodiphenylamine	**<1140**	ug/kg	3800	1140	4	04/14/22 10:23	04/18/22 21:05	86-30-6	
2,2'-Oxybis(1-chloropropane)	**<217**	ug/kg	722	217	4	04/14/22 10:23	04/18/22 21:05	108-60-1	
Pentachlorophenol	**<185**	ug/kg	617	185	4	04/14/22 10:23	04/18/22 21:05	87-86-5	
Phenanthrene	**939**	ug/kg	359	108	4	04/14/22 10:23	04/18/22 21:05	85-01-8	
Phenol	**<199**	ug/kg	665	199	4	04/14/22 10:23	04/18/22 21:05	108-95-2	D3

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 1 **Lab ID: 40243288001** Collected: 04/08/22 10:30 Received: 04/12/22 08:25 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 FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Pyrene	**1010**	ug/kg	621	186	4	04/14/22 10:23	04/18/22 21:05	129-00-0	
1,2,4-Trichlorobenzene	**<95.0**	ug/kg	317	95.0	4	04/14/22 10:23	04/18/22 21:05	120-82-1	
2,4,5-Trichlorophenol	**<148**	ug/kg	495	148	4	04/14/22 10:23	04/18/22 21:05	95-95-4	
2,4,6-Trichlorophenol	**<128**	ug/kg	427	128	4	04/14/22 10:23	04/18/22 21:05	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	63	%	10-125		4	04/14/22 10:23	04/18/22 21:05	4165-60-0	
2-Fluorobiphenyl (S)	55	%	12-118		4	04/14/22 10:23	04/18/22 21:05	321-60-8	
Terphenyl-d14 (S)	57	%	10-124		4	04/14/22 10:23	04/18/22 21:05	1718-51-0	
Phenol-d6 (S)	53	%	10-125		4	04/14/22 10:23	04/18/22 21:05	13127-88-3	
2-Fluorophenol (S)	57	%	10-130		4	04/14/22 10:23	04/18/22 21:05	367-12-4	
2,4,6-Tribromophenol (S)	53	%	10-144		4	04/14/22 10:23	04/18/22 21:05	118-79-6	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Benzene	**<18.1**	ug/kg	30.4	18.1	1	04/14/22 13:00	04/14/22 23:36	71-43-2	
Bromobenzene	**<29.6**	ug/kg	76.0	29.6	1	04/14/22 13:00	04/14/22 23:36	108-86-1	
Bromochloromethane	**<20.8**	ug/kg	76.0	20.8	1	04/14/22 13:00	04/14/22 23:36	74-97-5	
Bromodichloromethane	**<18.1**	ug/kg	76.0	18.1	1	04/14/22 13:00	04/14/22 23:36	75-27-4	
Bromoform	**<334**	ug/kg	380	334	1	04/14/22 13:00	04/14/22 23:36	75-25-2	
Bromomethane	**<107**	ug/kg	380	107	1	04/14/22 13:00	04/14/22 23:36	74-83-9	
n-Butylbenzene	**<34.8**	ug/kg	76.0	34.8	1	04/14/22 13:00	04/14/22 23:36	104-51-8	
sec-Butylbenzene	**<18.5**	ug/kg	76.0	18.5	1	04/14/22 13:00	04/14/22 23:36	135-98-8	
tert-Butylbenzene	**<23.9**	ug/kg	76.0	23.9	1	04/14/22 13:00	04/14/22 23:36	98-06-6	
Carbon tetrachloride	**<16.7**	ug/kg	76.0	16.7	1	04/14/22 13:00	04/14/22 23:36	56-23-5	
Chlorobenzene	**<9.1**	ug/kg	76.0	9.1	1	04/14/22 13:00	04/14/22 23:36	108-90-7	
Chloroethane	**<32.1**	ug/kg	380	32.1	1	04/14/22 13:00	04/14/22 23:36	75-00-3	
Chloroform	**<54.4**	ug/kg	380	54.4	1	04/14/22 13:00	04/14/22 23:36	67-66-3	
Chloromethane	**<28.9**	ug/kg	76.0	28.9	1	04/14/22 13:00	04/14/22 23:36	74-87-3	
2-Chlorotoluene	**<24.6**	ug/kg	76.0	24.6	1	04/14/22 13:00	04/14/22 23:36	95-49-8	
4-Chlorotoluene	**<28.9**	ug/kg	76.0	28.9	1	04/14/22 13:00	04/14/22 23:36	106-43-4	
1,2-Dibromo-3-chloropropane	**<59.0**	ug/kg	380	59.0	1	04/14/22 13:00	04/14/22 23:36	96-12-8	
Dibromochloromethane	**<260**	ug/kg	380	260	1	04/14/22 13:00	04/14/22 23:36	124-48-1	
1,2-Dibromoethane (EDB)	**<20.8**	ug/kg	76.0	20.8	1	04/14/22 13:00	04/14/22 23:36	106-93-4	
Dibromomethane	**<22.5**	ug/kg	76.0	22.5	1	04/14/22 13:00	04/14/22 23:36	74-95-3	
1,2-Dichlorobenzene	**<23.6**	ug/kg	76.0	23.6	1	04/14/22 13:00	04/14/22 23:36	95-50-1	
1,3-Dichlorobenzene	**<20.8**	ug/kg	76.0	20.8	1	04/14/22 13:00	04/14/22 23:36	541-73-1	
1,4-Dichlorobenzene	**<20.8**	ug/kg	76.0	20.8	1	04/14/22 13:00	04/14/22 23:36	106-46-7	
Dichlorodifluoromethane	**<32.7**	ug/kg	76.0	32.7	1	04/14/22 13:00	04/14/22 23:36	75-71-8	
1,1-Dichloroethane	**<19.5**	ug/kg	76.0	19.5	1	04/14/22 13:00	04/14/22 23:36	75-34-3	
1,2-Dichloroethane	**<17.5**	ug/kg	76.0	17.5	1	04/14/22 13:00	04/14/22 23:36	107-06-2	
1,1-Dichloroethene	**<25.2**	ug/kg	76.0	25.2	1	04/14/22 13:00	04/14/22 23:36	75-35-4	
cis-1,2-Dichloroethene	**<16.3**	ug/kg	76.0	16.3	1	04/14/22 13:00	04/14/22 23:36	156-59-2	
trans-1,2-Dichloroethene	**<16.4**	ug/kg	76.0	16.4	1	04/14/22 13:00	04/14/22 23:36	156-60-5	
1,2-Dichloropropane	**<18.1**	ug/kg	76.0	18.1	1	04/14/22 13:00	04/14/22 23:36	78-87-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 1 **Lab ID: 40243288001** Collected: 04/08/22 10:30 Received: 04/12/22 08:25 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								
1,3-Dichloropropane	**<16.6**	ug/kg	76.0	16.6	1	04/14/22 13:00	04/14/22 23:36	142-28-9	
2,2-Dichloropropane	**<20.5**	ug/kg	76.0	20.5	1	04/14/22 13:00	04/14/22 23:36	594-20-7	
1,1-Dichloropropene	**<24.6**	ug/kg	76.0	24.6	1	04/14/22 13:00	04/14/22 23:36	563-58-6	
cis-1,3-Dichloropropene	**<50.2**	ug/kg	380	50.2	1	04/14/22 13:00	04/14/22 23:36	10061-01-5	
trans-1,3-Dichloropropene	**<217**	ug/kg	380	217	1	04/14/22 13:00	04/14/22 23:36	10061-02-6	
Diisopropyl ether	**<18.8**	ug/kg	76.0	18.8	1	04/14/22 13:00	04/14/22 23:36	108-20-3	
Ethylbenzene	**<18.1**	ug/kg	76.0	18.1	1	04/14/22 13:00	04/14/22 23:36	100-41-4	
Hexachloro-1,3-butadiene	**<151**	ug/kg	380	151	1	04/14/22 13:00	04/14/22 23:36	87-68-3	
Isopropylbenzene (Cumene)	**<20.5**	ug/kg	76.0	20.5	1	04/14/22 13:00	04/14/22 23:36	98-82-8	
p-Isopropyltoluene	**<23.1**	ug/kg	76.0	23.1	1	04/14/22 13:00	04/14/22 23:36	99-87-6	
Methylene Chloride	**<21.1**	ug/kg	76.0	21.1	1	04/14/22 13:00	04/14/22 23:36	75-09-2	
Methyl-tert-butyl ether	**<22.3**	ug/kg	76.0	22.3	1	04/14/22 13:00	04/14/22 23:36	1634-04-4	
Naphthalene	**<23.7**	ug/kg	380	23.7	1	04/14/22 13:00	04/14/22 23:36	91-20-3	
n-Propylbenzene	**<18.2**	ug/kg	76.0	18.2	1	04/14/22 13:00	04/14/22 23:36	103-65-1	
Styrene	**<19.5**	ug/kg	76.0	19.5	1	04/14/22 13:00	04/14/22 23:36	100-42-5	
1,1,1,2-Tetrachloroethane	**<18.2**	ug/kg	76.0	18.2	1	04/14/22 13:00	04/14/22 23:36	630-20-6	
1,1,2,2-Tetrachloroethane	**<27.5**	ug/kg	76.0	27.5	1	04/14/22 13:00	04/14/22 23:36	79-34-5	
Tetrachloroethene	**<29.5**	ug/kg	76.0	29.5	1	04/14/22 13:00	04/14/22 23:36	127-18-4	
Toluene	**<19.1**	ug/kg	76.0	19.1	1	04/14/22 13:00	04/14/22 23:36	108-88-3	
1,2,3-Trichlorobenzene	**<84.7**	ug/kg	380	84.7	1	04/14/22 13:00	04/14/22 23:36	87-61-6	
1,2,4-Trichlorobenzene	**<62.6**	ug/kg	380	62.6	1	04/14/22 13:00	04/14/22 23:36	120-82-1	
1,1,1-Trichloroethane	**<19.5**	ug/kg	76.0	19.5	1	04/14/22 13:00	04/14/22 23:36	71-55-6	
1,1,2-Trichloroethane	**<27.7**	ug/kg	76.0	27.7	1	04/14/22 13:00	04/14/22 23:36	79-00-5	
Trichloroethene	**<28.4**	ug/kg	76.0	28.4	1	04/14/22 13:00	04/14/22 23:36	79-01-6	
Trichlorofluoromethane	**<22.0**	ug/kg	76.0	22.0	1	04/14/22 13:00	04/14/22 23:36	75-69-4	
1,2,3-Trichloropropane	**<36.9**	ug/kg	76.0	36.9	1	04/14/22 13:00	04/14/22 23:36	96-18-4	
1,2,4-Trimethylbenzene	**<22.6**	ug/kg	76.0	22.6	1	04/14/22 13:00	04/14/22 23:36	95-63-6	
1,3,5-Trimethylbenzene	**<24.5**	ug/kg	76.0	24.5	1	04/14/22 13:00	04/14/22 23:36	108-67-8	
Vinyl chloride	**<15.3**	ug/kg	76.0	15.3	1	04/14/22 13:00	04/14/22 23:36	75-01-4	
m&p-Xylene	**<32.1**	ug/kg	152	32.1	1	04/14/22 13:00	04/14/22 23:36	179601-23-1	
o-Xylene	**<22.8**	ug/kg	76.0	22.8	1	04/14/22 13:00	04/14/22 23:36	95-47-6	
Surrogates									
Toluene-d8 (S)	117	%	67-159		1	04/14/22 13:00	04/14/22 23:36	2037-26-5	
4-Bromofluorobenzene (S)	121	%	66-153		1	04/14/22 13:00	04/14/22 23:36	460-00-4	
1,2-Dichlorobenzene-d4 (S)	122	%	82-158		1	04/14/22 13:00	04/14/22 23:36	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**20.6**	%	0.10	0.10	1		04/13/22 13:11		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 2 **Lab ID: 40243288002** Collected: 04/08/22 10:10 Received: 04/12/22 08:25 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<19.0**	ug/kg	62.4	19.0	1	04/13/22 02:37	04/13/22 21:05	12674-11-2	
PCB-1221 (Aroclor 1221)	**<19.0**	ug/kg	62.4	19.0	1	04/13/22 02:37	04/13/22 21:05	11104-28-2	
PCB-1232 (Aroclor 1232)	**<19.0**	ug/kg	62.4	19.0	1	04/13/22 02:37	04/13/22 21:05	11141-16-5	
PCB-1242 (Aroclor 1242)	**<19.0**	ug/kg	62.4	19.0	1	04/13/22 02:37	04/13/22 21:05	53469-21-9	
PCB-1248 (Aroclor 1248)	**<19.0**	ug/kg	62.4	19.0	1	04/13/22 02:37	04/13/22 21:05	12672-29-6	
PCB-1254 (Aroclor 1254)	**95.5**	ug/kg	62.4	19.0	1	04/13/22 02:37	04/13/22 21:05	11097-69-1	
PCB-1260 (Aroclor 1260)	**50.5J**	ug/kg	62.4	19.0	1	04/13/22 02:37	04/13/22 21:05	11096-82-5	
PCB, Total	**146**	ug/kg	62.4	19.0	1	04/13/22 02:37	04/13/22 21:05	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	77	%	50-99		1	04/13/22 02:37	04/13/22 21:05	877-09-8	
Decachlorobiphenyl (S)	64	%	38-95		1	04/13/22 02:37	04/13/22 21:05	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**3.5**	mg/kg	3.0	1.8	1	04/13/22 07:26	04/13/22 16:14	7440-38-2	
Barium	**53.5**	mg/kg	0.60	0.18	1	04/13/22 07:26	04/13/22 16:14	7440-39-3	
Cadmium	**0.28J**	mg/kg	0.60	0.16	1	04/13/22 07:26	04/13/22 16:14	7440-43-9	
Chromium	**17.2**	mg/kg	1.2	0.33	1	04/13/22 07:26	04/13/22 16:14	7440-47-3	
Lead	**8.6**	mg/kg	2.4	0.72	1	04/13/22 07:26	04/13/22 16:14	7439-92-1	
Selenium	**<1.6**	mg/kg	4.8	1.6	1	04/13/22 07:26	04/13/22 16:14	7782-49-2	
Silver	**<0.37**	mg/kg	1.2	0.37	1	04/13/22 07:26	04/13/22 16:14	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**0.030J**	mg/kg	0.042	0.012	1	04/18/22 10:05	04/19/22 09:29	7439-97-6	
8270E MSSV FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<73.7**	ug/kg	246	73.7	1	04/14/22 10:23	04/18/22 14:46	83-32-9	
Acenaphthylene	**<74.2**	ug/kg	247	74.2	1	04/14/22 10:23	04/18/22 14:46	208-96-8	
Anthracene	**<33.2**	ug/kg	111	33.2	1	04/14/22 10:23	04/18/22 14:46	120-12-7	
Benzo(a)anthracene	**<32.2**	ug/kg	107	32.2	1	04/14/22 10:23	04/18/22 14:46	56-55-3	
Benzo(a)pyrene	**<31.3**	ug/kg	104	31.3	1	04/14/22 10:23	04/18/22 14:46	50-32-8	
Benzo(b)fluoranthene	**<35.7**	ug/kg	119	35.7	1	04/14/22 10:23	04/18/22 14:46	205-99-2	
Benzo(g,h,i)perylene	**<54.4**	ug/kg	181	54.4	1	04/14/22 10:23	04/18/22 14:46	191-24-2	
Benzo(k)fluoranthene	**<49.8**	ug/kg	166	49.8	1	04/14/22 10:23	04/18/22 14:46	207-08-9	
4-Bromophenylphenyl ether	**<43.6**	ug/kg	145	43.6	1	04/14/22 10:23	04/18/22 14:46	101-55-3	
Butylbenzylphthalate	**<33.3**	ug/kg	111	33.3	1	04/14/22 10:23	04/18/22 14:46	85-68-7	
Carbazole	**<32.6**	ug/kg	109	32.6	1	04/14/22 10:23	04/18/22 14:46	86-74-8	
4-Chloro-3-methylphenol	**<64.7**	ug/kg	216	64.7	1	04/14/22 10:23	04/18/22 14:46	59-50-7	
4-Chloroaniline	**<34.2**	ug/kg	114	34.2	1	04/14/22 10:23	04/18/22 14:46	106-47-8	1q
bis(2-Chloroethoxy)methane	**<56.0**	ug/kg	187	56.0	1	04/14/22 10:23	04/18/22 14:46	111-91-1	
bis(2-Chloroethyl) ether	**<64.9**	ug/kg	216	64.9	1	04/14/22 10:23	04/18/22 14:46	111-44-4	
2-Chloronaphthalene	**<26.7**	ug/kg	89.0	26.7	1	04/14/22 10:23	04/18/22 14:46	91-58-7	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 2 **Lab ID: 40243288002** Collected: 04/08/22 10:10 Received: 04/12/22 08:25 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 FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
2-Chlorophenol	**<51.9**	ug/kg	173	51.9	1	04/14/22 10:23	04/18/22 14:46	95-57-8	
4-Chlorophenylphenyl ether	**<38.7**	ug/kg	129	38.7	1	04/14/22 10:23	04/18/22 14:46	7005-72-3	
Chrysene	**<31.1**	ug/kg	104	31.1	1	04/14/22 10:23	04/18/22 14:46	218-01-9	
Dibenz(a,h)anthracene	**<56.5**	ug/kg	188	56.5	1	04/14/22 10:23	04/18/22 14:46	53-70-3	
Dibenzofuran	**<25.2**	ug/kg	83.9	25.2	1	04/14/22 10:23	04/18/22 14:46	132-64-9	
1,2-Dichlorobenzene	**<65.4**	ug/kg	218	65.4	1	04/14/22 10:23	04/18/22 14:46	95-50-1	
1,3-Dichlorobenzene	**<28.8**	ug/kg	96.0	28.8	1	04/14/22 10:23	04/18/22 14:46	541-73-1	
1,4-Dichlorobenzene	**<29.0**	ug/kg	96.6	29.0	1	04/14/22 10:23	04/18/22 14:46	106-46-7	
3,3'-Dichlorobenzidine	**<56.4**	ug/kg	188	56.4	1	04/14/22 10:23	04/18/22 14:46	91-94-1	
2,4-Dichlorophenol	**<55.6**	ug/kg	185	55.6	1	04/14/22 10:23	04/18/22 14:46	120-83-2	
Diethylphthalate	**<34.5**	ug/kg	115	34.5	1	04/14/22 10:23	04/18/22 14:46	84-66-2	
2,4-Dimethylphenol	**<41.1**	ug/kg	137	41.1	1	04/14/22 10:23	04/18/22 14:46	105-67-9	
Dimethylphthalate	**<27.1**	ug/kg	90.2	27.1	1	04/14/22 10:23	04/18/22 14:46	131-11-3	
Di-n-butylphthalate	**<31.1**	ug/kg	104	31.1	1	04/14/22 10:23	04/18/22 14:46	84-74-2	
4,6-Dinitro-2-methylphenol	**<64.1**	ug/kg	214	64.1	1	04/14/22 10:23	04/18/22 14:46	534-52-1	
2,4-Dinitrophenol	**<63.4**	ug/kg	211	63.4	1	04/14/22 10:23	04/18/22 14:46	51-28-5	
2,4-Dinitrotoluene	**<29.7**	ug/kg	99.1	29.7	1	04/14/22 10:23	04/18/22 14:46	121-14-2	
2,6-Dinitrotoluene	**<39.5**	ug/kg	132	39.5	1	04/14/22 10:23	04/18/22 14:46	606-20-2	
Di-n-octylphthalate	**<46.8**	ug/kg	156	46.8	1	04/14/22 10:23	04/18/22 14:46	117-84-0	
bis(2-Ethylhexyl)phthalate	**<34.6**	ug/kg	115	34.6	1	04/14/22 10:23	04/18/22 14:46	117-81-7	
Fluoranthene	**<29.4**	ug/kg	98.1	29.4	1	04/14/22 10:23	04/18/22 14:46	206-44-0	
Fluorene	**<24.3**	ug/kg	81.0	24.3	1	04/14/22 10:23	04/18/22 14:46	86-73-7	
Hexachloro-1,3-butadiene	**<53.0**	ug/kg	177	53.0	1	04/14/22 10:23	04/18/22 14:46	87-68-3	
Hexachlorobenzene	**<35.0**	ug/kg	117	35.0	1	04/14/22 10:23	04/18/22 14:46	118-74-1	
Hexachlorocyclopentadiene	**<49.2**	ug/kg	164	49.2	1	04/14/22 10:23	04/18/22 14:46	77-47-4	
Hexachloroethane	**<33.3**	ug/kg	111	33.3	1	04/14/22 10:23	04/18/22 14:46	67-72-1	
Indeno(1,2,3-cd)pyrene	**<45.0**	ug/kg	150	45.0	1	04/14/22 10:23	04/18/22 14:46	193-39-5	
Isophorone	**<32.0**	ug/kg	107	32.0	1	04/14/22 10:23	04/18/22 14:46	78-59-1	
2-Methylnaphthalene	**<54.0**	ug/kg	180	54.0	1	04/14/22 10:23	04/18/22 14:46	91-57-6	
2-Methylphenol(o-Cresol)	**<37.8**	ug/kg	126	37.8	1	04/14/22 10:23	04/18/22 14:46	95-48-7	
3&4-Methylphenol(m&p Cresol)	**<38.1**	ug/kg	127	38.1	1	04/14/22 10:23	04/18/22 14:46		
Naphthalene	**<72.7**	ug/kg	242	72.7	1	04/14/22 10:23	04/18/22 14:46	91-20-3	
2-Nitroaniline	**<59.3**	ug/kg	198	59.3	1	04/14/22 10:23	04/18/22 14:46	88-74-4	
3-Nitroaniline	**<35.4**	ug/kg	118	35.4	1	04/14/22 10:23	04/18/22 14:46	99-09-2	
4-Nitroaniline	**<86.3**	ug/kg	288	86.3	1	04/14/22 10:23	04/18/22 14:46	100-01-6	
Nitrobenzene	**<42.2**	ug/kg	141	42.2	1	04/14/22 10:23	04/18/22 14:46	98-95-3	
2-Nitrophenol	**<65.6**	ug/kg	219	65.6	1	04/14/22 10:23	04/18/22 14:46	88-75-5	
4-Nitrophenol	**<52.4**	ug/kg	175	52.4	1	04/14/22 10:23	04/18/22 14:46	100-02-7	
N-Nitroso-di-n-propylamine	**<33.0**	ug/kg	110	33.0	1	04/14/22 10:23	04/18/22 14:46	621-64-7	
N-Nitrosodiphenylamine	**<282**	ug/kg	941	282	1	04/14/22 10:23	04/18/22 14:46	86-30-6	
2,2'-Oxybis(1-chloropropane)	**<53.6**	ug/kg	179	53.6	1	04/14/22 10:23	04/18/22 14:46	108-60-1	
Pentachlorophenol	**<45.8**	ug/kg	153	45.8	1	04/14/22 10:23	04/18/22 14:46	87-86-5	
Phenanthrene	**<26.7**	ug/kg	88.9	26.7	1	04/14/22 10:23	04/18/22 14:46	85-01-8	
Phenol	**<49.4**	ug/kg	165	49.4	1	04/14/22 10:23	04/18/22 14:46	108-95-2	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 2 **Lab ID: 40243288002** Collected: 04/08/22 10:10 Received: 04/12/22 08:25 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 FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Pyrene	**<46.1**	ug/kg	154	46.1	1	04/14/22 10:23	04/18/22 14:46	129-00-0	
1,2,4-Trichlorobenzene	**<23.5**	ug/kg	78.4	23.5	1	04/14/22 10:23	04/18/22 14:46	120-82-1	
2,4,5-Trichlorophenol	**<36.7**	ug/kg	122	36.7	1	04/14/22 10:23	04/18/22 14:46	95-95-4	
2,4,6-Trichlorophenol	**<31.7**	ug/kg	106	31.7	1	04/14/22 10:23	04/18/22 14:46	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	79	%	10-125		1	04/14/22 10:23	04/18/22 14:46	4165-60-0	
2-Fluorobiphenyl (S)	58	%	12-118		1	04/14/22 10:23	04/18/22 14:46	321-60-8	
Terphenyl-d14 (S)	64	%	10-124		1	04/14/22 10:23	04/18/22 14:46	1718-51-0	
Phenol-d6 (S)	62	%	10-125		1	04/14/22 10:23	04/18/22 14:46	13127-88-3	
2-Fluorophenol (S)	70	%	10-130		1	04/14/22 10:23	04/18/22 14:46	367-12-4	
2,4,6-Tribromophenol (S)	66	%	10-144		1	04/14/22 10:23	04/18/22 14:46	118-79-6	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Benzene	**<17.8**	ug/kg	29.9	17.8	1	04/14/22 13:00	04/14/22 23:57	71-43-2	
Bromobenzene	**<29.1**	ug/kg	74.7	29.1	1	04/14/22 13:00	04/14/22 23:57	108-86-1	
Bromochloromethane	**<20.5**	ug/kg	74.7	20.5	1	04/14/22 13:00	04/14/22 23:57	74-97-5	
Bromodichloromethane	**<17.8**	ug/kg	74.7	17.8	1	04/14/22 13:00	04/14/22 23:57	75-27-4	
Bromoform	**<329**	ug/kg	374	329	1	04/14/22 13:00	04/14/22 23:57	75-25-2	
Bromomethane	**<105**	ug/kg	374	105	1	04/14/22 13:00	04/14/22 23:57	74-83-9	
n-Butylbenzene	**<34.2**	ug/kg	74.7	34.2	1	04/14/22 13:00	04/14/22 23:57	104-51-8	
sec-Butylbenzene	**<18.2**	ug/kg	74.7	18.2	1	04/14/22 13:00	04/14/22 23:57	135-98-8	
tert-Butylbenzene	**<23.5**	ug/kg	74.7	23.5	1	04/14/22 13:00	04/14/22 23:57	98-06-6	
Carbon tetrachloride	**<16.4**	ug/kg	74.7	16.4	1	04/14/22 13:00	04/14/22 23:57	56-23-5	
Chlorobenzene	**<9.0**	ug/kg	74.7	9.0	1	04/14/22 13:00	04/14/22 23:57	108-90-7	
Chloroethane	**<31.5**	ug/kg	374	31.5	1	04/14/22 13:00	04/14/22 23:57	75-00-3	
Chloroform	**<53.5**	ug/kg	374	53.5	1	04/14/22 13:00	04/14/22 23:57	67-66-3	
Chloromethane	**<28.4**	ug/kg	74.7	28.4	1	04/14/22 13:00	04/14/22 23:57	74-87-3	
2-Chlorotoluene	**<24.2**	ug/kg	74.7	24.2	1	04/14/22 13:00	04/14/22 23:57	95-49-8	
4-Chlorotoluene	**<28.4**	ug/kg	74.7	28.4	1	04/14/22 13:00	04/14/22 23:57	106-43-4	
1,2-Dibromo-3-chloropropane	**<58.0**	ug/kg	374	58.0	1	04/14/22 13:00	04/14/22 23:57	96-12-8	
Dibromochloromethane	**<255**	ug/kg	374	255	1	04/14/22 13:00	04/14/22 23:57	124-48-1	
1,2-Dibromoethane (EDB)	**<20.5**	ug/kg	74.7	20.5	1	04/14/22 13:00	04/14/22 23:57	106-93-4	
Dibromomethane	**<22.1**	ug/kg	74.7	22.1	1	04/14/22 13:00	04/14/22 23:57	74-95-3	
1,2-Dichlorobenzene	**<23.2**	ug/kg	74.7	23.2	1	04/14/22 13:00	04/14/22 23:57	95-50-1	
1,3-Dichlorobenzene	**<20.5**	ug/kg	74.7	20.5	1	04/14/22 13:00	04/14/22 23:57	541-73-1	
1,4-Dichlorobenzene	**<20.5**	ug/kg	74.7	20.5	1	04/14/22 13:00	04/14/22 23:57	106-46-7	
Dichlorodifluoromethane	**<32.1**	ug/kg	74.7	32.1	1	04/14/22 13:00	04/14/22 23:57	75-71-8	
1,1-Dichloroethane	**<19.1**	ug/kg	74.7	19.1	1	04/14/22 13:00	04/14/22 23:57	75-34-3	
1,2-Dichloroethane	**<17.2**	ug/kg	74.7	17.2	1	04/14/22 13:00	04/14/22 23:57	107-06-2	
1,1-Dichloroethene	**<24.8**	ug/kg	74.7	24.8	1	04/14/22 13:00	04/14/22 23:57	75-35-4	
cis-1,2-Dichloroethene	**<16.0**	ug/kg	74.7	16.0	1	04/14/22 13:00	04/14/22 23:57	156-59-2	
trans-1,2-Dichloroethene	**<16.1**	ug/kg	74.7	16.1	1	04/14/22 13:00	04/14/22 23:57	156-60-5	
1,2-Dichloropropane	**<17.8**	ug/kg	74.7	17.8	1	04/14/22 13:00	04/14/22 23:57	78-87-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 2 **Lab ID: 40243288002** Collected: 04/08/22 10:10 Received: 04/12/22 08:25 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								
1,3-Dichloropropane	**<16.3**	ug/kg	74.7	16.3	1	04/14/22 13:00	04/14/22 23:57	142-28-9	
2,2-Dichloropropane	**<20.2**	ug/kg	74.7	20.2	1	04/14/22 13:00	04/14/22 23:57	594-20-7	
1,1-Dichloropropene	**<24.2**	ug/kg	74.7	24.2	1	04/14/22 13:00	04/14/22 23:57	563-58-6	
cis-1,3-Dichloropropene	**<49.3**	ug/kg	374	49.3	1	04/14/22 13:00	04/14/22 23:57	10061-01-5	
trans-1,3-Dichloropropene	**<214**	ug/kg	374	214	1	04/14/22 13:00	04/14/22 23:57	10061-02-6	
Diisopropyl ether	**<18.5**	ug/kg	74.7	18.5	1	04/14/22 13:00	04/14/22 23:57	108-20-3	
Ethylbenzene	**<17.8**	ug/kg	74.7	17.8	1	04/14/22 13:00	04/14/22 23:57	100-41-4	
Hexachloro-1,3-butadiene	**<149**	ug/kg	374	149	1	04/14/22 13:00	04/14/22 23:57	87-68-3	
Isopropylbenzene (Cumene)	**<20.2**	ug/kg	74.7	20.2	1	04/14/22 13:00	04/14/22 23:57	98-82-8	
p-Isopropyltoluene	**<22.7**	ug/kg	74.7	22.7	1	04/14/22 13:00	04/14/22 23:57	99-87-6	
Methylene Chloride	**<20.8**	ug/kg	74.7	20.8	1	04/14/22 13:00	04/14/22 23:57	75-09-2	
Methyl-tert-butyl ether	**<22.0**	ug/kg	74.7	22.0	1	04/14/22 13:00	04/14/22 23:57	1634-04-4	
Naphthalene	**<23.3**	ug/kg	374	23.3	1	04/14/22 13:00	04/14/22 23:57	91-20-3	
n-Propylbenzene	**<17.9**	ug/kg	74.7	17.9	1	04/14/22 13:00	04/14/22 23:57	103-65-1	
Styrene	**<19.1**	ug/kg	74.7	19.1	1	04/14/22 13:00	04/14/22 23:57	100-42-5	
1,1,1,2-Tetrachloroethane	**<17.9**	ug/kg	74.7	17.9	1	04/14/22 13:00	04/14/22 23:57	630-20-6	
1,1,2,2-Tetrachloroethane	**<27.0**	ug/kg	74.7	27.0	1	04/14/22 13:00	04/14/22 23:57	79-34-5	
Tetrachloroethene	**<29.0**	ug/kg	74.7	29.0	1	04/14/22 13:00	04/14/22 23:57	127-18-4	
Toluene	**<18.8**	ug/kg	74.7	18.8	1	04/14/22 13:00	04/14/22 23:57	108-88-3	
1,2,3-Trichlorobenzene	**<83.2**	ug/kg	374	83.2	1	04/14/22 13:00	04/14/22 23:57	87-61-6	
1,2,4-Trichlorobenzene	**<61.6**	ug/kg	374	61.6	1	04/14/22 13:00	04/14/22 23:57	120-82-1	
1,1,1-Trichloroethane	**<19.1**	ug/kg	74.7	19.1	1	04/14/22 13:00	04/14/22 23:57	71-55-6	
1,1,2-Trichloroethane	**<27.2**	ug/kg	74.7	27.2	1	04/14/22 13:00	04/14/22 23:57	79-00-5	
Trichloroethene	**<27.9**	ug/kg	74.7	27.9	1	04/14/22 13:00	04/14/22 23:57	79-01-6	
Trichlorofluoromethane	**<21.7**	ug/kg	74.7	21.7	1	04/14/22 13:00	04/14/22 23:57	75-69-4	
1,2,3-Trichloropropane	**<36.3**	ug/kg	74.7	36.3	1	04/14/22 13:00	04/14/22 23:57	96-18-4	
1,2,4-Trimethylbenzene	**<22.3**	ug/kg	74.7	22.3	1	04/14/22 13:00	04/14/22 23:57	95-63-6	
1,3,5-Trimethylbenzene	**<24.1**	ug/kg	74.7	24.1	1	04/14/22 13:00	04/14/22 23:57	108-67-8	
Vinyl chloride	**<15.1**	ug/kg	74.7	15.1	1	04/14/22 13:00	04/14/22 23:57	75-01-4	
m&p-Xylene	**<31.5**	ug/kg	149	31.5	1	04/14/22 13:00	04/14/22 23:57	179601-23-1	
o-Xylene	**<22.4**	ug/kg	74.7	22.4	1	04/14/22 13:00	04/14/22 23:57	95-47-6	
Surrogates									
Toluene-d8 (S)	125	%	67-159		1	04/14/22 13:00	04/14/22 23:57	2037-26-5	
4-Bromofluorobenzene (S)	130	%	66-153		1	04/14/22 13:00	04/14/22 23:57	460-00-4	
1,2-Dichlorobenzene-d4 (S)	128	%	82-158		1	04/14/22 13:00	04/14/22 23:57	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**19.8**	%	0.10	0.10	1		04/13/22 13:11		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 3 **Lab ID: 40243288003** Collected: 04/08/22 09:45 Received: 04/12/22 08:25 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<19.3**	ug/kg	63.4	19.3	1	04/13/22 02:37	04/13/22 21:29	12674-11-2	
PCB-1221 (Aroclor 1221)	**<19.3**	ug/kg	63.4	19.3	1	04/13/22 02:37	04/13/22 21:29	11104-28-2	
PCB-1232 (Aroclor 1232)	**<19.3**	ug/kg	63.4	19.3	1	04/13/22 02:37	04/13/22 21:29	11141-16-5	
PCB-1242 (Aroclor 1242)	**<19.3**	ug/kg	63.4	19.3	1	04/13/22 02:37	04/13/22 21:29	53469-21-9	
PCB-1248 (Aroclor 1248)	**<19.3**	ug/kg	63.4	19.3	1	04/13/22 02:37	04/13/22 21:29	12672-29-6	
PCB-1254 (Aroclor 1254)	**<19.3**	ug/kg	63.4	19.3	1	04/13/22 02:37	04/13/22 21:29	11097-69-1	
PCB-1260 (Aroclor 1260)	**<19.3**	ug/kg	63.4	19.3	1	04/13/22 02:37	04/13/22 21:29	11096-82-5	
PCB, Total	**<19.3**	ug/kg	63.4	19.3	1	04/13/22 02:37	04/13/22 21:29	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	75	%	50-99		1	04/13/22 02:37	04/13/22 21:29	877-09-8	
Decachlorobiphenyl (S)	72	%	38-95		1	04/13/22 02:37	04/13/22 21:29	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**9.3**	mg/kg	2.9	1.7	1	04/13/22 07:26	04/13/22 16:24	7440-38-2	
Barium	**82.0**	mg/kg	0.58	0.17	1	04/13/22 07:26	04/13/22 16:24	7440-39-3	
Cadmium	**0.18J**	mg/kg	0.58	0.15	1	04/13/22 07:26	04/13/22 16:24	7440-43-9	
Chromium	**29.5**	mg/kg	1.2	0.32	1	04/13/22 07:26	04/13/22 16:24	7440-47-3	
Lead	**17.9**	mg/kg	2.3	0.70	1	04/13/22 07:26	04/13/22 16:24	7439-92-1	
Selenium	**<1.5**	mg/kg	4.6	1.5	1	04/13/22 07:26	04/13/22 16:24	7782-49-2	
Silver	**<0.36**	mg/kg	1.2	0.36	1	04/13/22 07:26	04/13/22 16:24	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**0.016J**	mg/kg	0.043	0.012	1	04/18/22 10:05	04/19/22 09:32	7439-97-6	
8270E MSSV FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<75.1**	ug/kg	250	75.1	1	04/14/22 10:23	04/18/22 15:07	83-32-9	
Acenaphthylene	**<75.5**	ug/kg	252	75.5	1	04/14/22 10:23	04/18/22 15:07	208-96-8	
Anthracene	**<33.8**	ug/kg	113	33.8	1	04/14/22 10:23	04/18/22 15:07	120-12-7	
Benzo(a)anthracene	**<32.8**	ug/kg	109	32.8	1	04/14/22 10:23	04/18/22 15:07	56-55-3	
Benzo(a)pyrene	**<31.9**	ug/kg	106	31.9	1	04/14/22 10:23	04/18/22 15:07	50-32-8	
Benzo(b)fluoranthene	**<36.4**	ug/kg	121	36.4	1	04/14/22 10:23	04/18/22 15:07	205-99-2	
Benzo(g,h,i)perylene	**<55.4**	ug/kg	185	55.4	1	04/14/22 10:23	04/18/22 15:07	191-24-2	
Benzo(k)fluoranthene	**<50.7**	ug/kg	169	50.7	1	04/14/22 10:23	04/18/22 15:07	207-08-9	
4-Bromophenylphenyl ether	**<44.3**	ug/kg	148	44.3	1	04/14/22 10:23	04/18/22 15:07	101-55-3	
Butylbenzylphthalate	**<33.9**	ug/kg	113	33.9	1	04/14/22 10:23	04/18/22 15:07	85-68-7	
Carbazole	**<33.1**	ug/kg	110	33.1	1	04/14/22 10:23	04/18/22 15:07	86-74-8	
4-Chloro-3-methylphenol	**<65.9**	ug/kg	220	65.9	1	04/14/22 10:23	04/18/22 15:07	59-50-7	
4-Chloroaniline	**<34.8**	ug/kg	116	34.8	1	04/14/22 10:23	04/18/22 15:07	106-47-8	1q
bis(2-Chloroethoxy)methane	**<57.0**	ug/kg	190	57.0	1	04/14/22 10:23	04/18/22 15:07	111-91-1	
bis(2-Chloroethyl) ether	**<66.1**	ug/kg	220	66.1	1	04/14/22 10:23	04/18/22 15:07	111-44-4	
2-Chloronaphthalene	**<27.2**	ug/kg	90.6	27.2	1	04/14/22 10:23	04/18/22 15:07	91-58-7	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 3 **Lab ID: 40243288003** Collected: 04/08/22 09:45 Received: 04/12/22 08:25 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 FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
2-Chlorophenol	**<52.8**	ug/kg	176	52.8	1	04/14/22 10:23	04/18/22 15:07	95-57-8	
4-Chlorophenylphenyl ether	**<39.4**	ug/kg	131	39.4	1	04/14/22 10:23	04/18/22 15:07	7005-72-3	
Chrysene	**<31.7**	ug/kg	106	31.7	1	04/14/22 10:23	04/18/22 15:07	218-01-9	
Dibenz(a,h)anthracene	**<57.5**	ug/kg	192	57.5	1	04/14/22 10:23	04/18/22 15:07	53-70-3	
Dibenzofuran	**<25.6**	ug/kg	85.4	25.6	1	04/14/22 10:23	04/18/22 15:07	132-64-9	
1,2-Dichlorobenzene	**<66.6**	ug/kg	222	66.6	1	04/14/22 10:23	04/18/22 15:07	95-50-1	
1,3-Dichlorobenzene	**<29.3**	ug/kg	97.7	29.3	1	04/14/22 10:23	04/18/22 15:07	541-73-1	
1,4-Dichlorobenzene	**<29.5**	ug/kg	98.3	29.5	1	04/14/22 10:23	04/18/22 15:07	106-46-7	
3,3'-Dichlorobenzidine	**<57.4**	ug/kg	191	57.4	1	04/14/22 10:23	04/18/22 15:07	91-94-1	
2,4-Dichlorophenol	**<56.6**	ug/kg	189	56.6	1	04/14/22 10:23	04/18/22 15:07	120-83-2	
Diethylphthalate	**<35.1**	ug/kg	117	35.1	1	04/14/22 10:23	04/18/22 15:07	84-66-2	
2,4-Dimethylphenol	**<41.9**	ug/kg	140	41.9	1	04/14/22 10:23	04/18/22 15:07	105-67-9	
Dimethylphthalate	**<27.5**	ug/kg	91.8	27.5	1	04/14/22 10:23	04/18/22 15:07	131-11-3	
Di-n-butylphthalate	**<31.6**	ug/kg	105	31.6	1	04/14/22 10:23	04/18/22 15:07	84-74-2	
4,6-Dinitro-2-methylphenol	**<65.3**	ug/kg	218	65.3	1	04/14/22 10:23	04/18/22 15:07	534-52-1	
2,4-Dinitrophenol	**<64.5**	ug/kg	215	64.5	1	04/14/22 10:23	04/18/22 15:07	51-28-5	
2,4-Dinitrotoluene	**<30.3**	ug/kg	101	30.3	1	04/14/22 10:23	04/18/22 15:07	121-14-2	
2,6-Dinitrotoluene	**<40.2**	ug/kg	134	40.2	1	04/14/22 10:23	04/18/22 15:07	606-20-2	
Di-n-octylphthalate	**<47.6**	ug/kg	159	47.6	1	04/14/22 10:23	04/18/22 15:07	117-84-0	
bis(2-Ethylhexyl)phthalate	**<35.2**	ug/kg	117	35.2	1	04/14/22 10:23	04/18/22 15:07	117-81-7	
Fluoranthene	**<30.0**	ug/kg	99.9	30.0	1	04/14/22 10:23	04/18/22 15:07	206-44-0	
Fluorene	**<24.7**	ug/kg	82.5	24.7	1	04/14/22 10:23	04/18/22 15:07	86-73-7	
Hexachloro-1,3-butadiene	**<53.9**	ug/kg	180	53.9	1	04/14/22 10:23	04/18/22 15:07	87-68-3	
Hexachlorobenzene	**<35.6**	ug/kg	119	35.6	1	04/14/22 10:23	04/18/22 15:07	118-74-1	
Hexachlorocyclopentadiene	**<50.1**	ug/kg	167	50.1	1	04/14/22 10:23	04/18/22 15:07	77-47-4	
Hexachloroethane	**<33.9**	ug/kg	113	33.9	1	04/14/22 10:23	04/18/22 15:07	67-72-1	
Indeno(1,2,3-cd)pyrene	**<45.8**	ug/kg	153	45.8	1	04/14/22 10:23	04/18/22 15:07	193-39-5	
Isophorone	**<32.5**	ug/kg	108	32.5	1	04/14/22 10:23	04/18/22 15:07	78-59-1	
2-Methylnaphthalene	**<55.0**	ug/kg	183	55.0	1	04/14/22 10:23	04/18/22 15:07	91-57-6	
2-Methylphenol(o-Cresol)	**<38.5**	ug/kg	128	38.5	1	04/14/22 10:23	04/18/22 15:07	95-48-7	
3&4-Methylphenol(m&p Cresol)	**<38.8**	ug/kg	129	38.8	1	04/14/22 10:23	04/18/22 15:07		
Naphthalene	**<74.0**	ug/kg	247	74.0	1	04/14/22 10:23	04/18/22 15:07	91-20-3	
2-Nitroaniline	**<60.3**	ug/kg	201	60.3	1	04/14/22 10:23	04/18/22 15:07	88-74-4	
3-Nitroaniline	**<36.0**	ug/kg	120	36.0	1	04/14/22 10:23	04/18/22 15:07	99-09-2	
4-Nitroaniline	**<87.9**	ug/kg	293	87.9	1	04/14/22 10:23	04/18/22 15:07	100-01-6	
Nitrobenzene	**<42.9**	ug/kg	143	42.9	1	04/14/22 10:23	04/18/22 15:07	98-95-3	
2-Nitrophenol	**<66.8**	ug/kg	223	66.8	1	04/14/22 10:23	04/18/22 15:07	88-75-5	
4-Nitrophenol	**<53.3**	ug/kg	178	53.3	1	04/14/22 10:23	04/18/22 15:07	100-02-7	
N-Nitroso-di-n-propylamine	**<33.6**	ug/kg	112	33.6	1	04/14/22 10:23	04/18/22 15:07	621-64-7	
N-Nitrosodiphenylamine	**<287**	ug/kg	958	287	1	04/14/22 10:23	04/18/22 15:07	86-30-6	
2,2'-Oxybis(1-chloropropane)	**<54.6**	ug/kg	182	54.6	1	04/14/22 10:23	04/18/22 15:07	108-60-1	
Pentachlorophenol	**<46.6**	ug/kg	155	46.6	1	04/14/22 10:23	04/18/22 15:07	87-86-5	
Phenanthrene	**<27.2**	ug/kg	90.5	27.2	1	04/14/22 10:23	04/18/22 15:07	85-01-8	
Phenol	**<50.2**	ug/kg	167	50.2	1	04/14/22 10:23	04/18/22 15:07	108-95-2	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 3 **Lab ID: 40243288003** Collected: 04/08/22 09:45 Received: 04/12/22 08:25 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 FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Pyrene	**<46.9**	ug/kg	156	46.9	1	04/14/22 10:23	04/18/22 15:07	129-00-0	
1,2,4-Trichlorobenzene	**<23.9**	ug/kg	79.8	23.9	1	04/14/22 10:23	04/18/22 15:07	120-82-1	
2,4,5-Trichlorophenol	**<37.4**	ug/kg	125	37.4	1	04/14/22 10:23	04/18/22 15:07	95-95-4	
2,4,6-Trichlorophenol	**<32.3**	ug/kg	108	32.3	1	04/14/22 10:23	04/18/22 15:07	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	67	%	10-125		1	04/14/22 10:23	04/18/22 15:07	4165-60-0	
2-Fluorobiphenyl (S)	48	%	12-118		1	04/14/22 10:23	04/18/22 15:07	321-60-8	
Terphenyl-d14 (S)	50	%	10-124		1	04/14/22 10:23	04/18/22 15:07	1718-51-0	
Phenol-d6 (S)	54	%	10-125		1	04/14/22 10:23	04/18/22 15:07	13127-88-3	
2-Fluorophenol (S)	58	%	10-130		1	04/14/22 10:23	04/18/22 15:07	367-12-4	
2,4,6-Tribromophenol (S)	51	%	10-144		1	04/14/22 10:23	04/18/22 15:07	118-79-6	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Benzene	**<18.3**	ug/kg	30.7	18.3	1	04/14/22 13:00	04/15/22 00:17	71-43-2	
Bromobenzene	**<29.9**	ug/kg	76.7	29.9	1	04/14/22 13:00	04/15/22 00:17	108-86-1	
Bromochloromethane	**<21.0**	ug/kg	76.7	21.0	1	04/14/22 13:00	04/15/22 00:17	74-97-5	
Bromodichloromethane	**<18.3**	ug/kg	76.7	18.3	1	04/14/22 13:00	04/15/22 00:17	75-27-4	
Bromoform	**<338**	ug/kg	384	338	1	04/14/22 13:00	04/15/22 00:17	75-25-2	
Bromomethane	**<108**	ug/kg	384	108	1	04/14/22 13:00	04/15/22 00:17	74-83-9	
n-Butylbenzene	**<35.2**	ug/kg	76.7	35.2	1	04/14/22 13:00	04/15/22 00:17	104-51-8	
sec-Butylbenzene	**<18.7**	ug/kg	76.7	18.7	1	04/14/22 13:00	04/15/22 00:17	135-98-8	
tert-Butylbenzene	**<24.1**	ug/kg	76.7	24.1	1	04/14/22 13:00	04/15/22 00:17	98-06-6	
Carbon tetrachloride	**<16.9**	ug/kg	76.7	16.9	1	04/14/22 13:00	04/15/22 00:17	56-23-5	
Chlorobenzene	**<9.2**	ug/kg	76.7	9.2	1	04/14/22 13:00	04/15/22 00:17	108-90-7	
Chloroethane	**<32.4**	ug/kg	384	32.4	1	04/14/22 13:00	04/15/22 00:17	75-00-3	
Chloroform	**<55.0**	ug/kg	384	55.0	1	04/14/22 13:00	04/15/22 00:17	67-66-3	
Chloromethane	**<29.2**	ug/kg	76.7	29.2	1	04/14/22 13:00	04/15/22 00:17	74-87-3	
2-Chlorotoluene	**<24.9**	ug/kg	76.7	24.9	1	04/14/22 13:00	04/15/22 00:17	95-49-8	
4-Chlorotoluene	**<29.2**	ug/kg	76.7	29.2	1	04/14/22 13:00	04/15/22 00:17	106-43-4	
1,2-Dibromo-3-chloropropane	**<59.6**	ug/kg	384	59.6	1	04/14/22 13:00	04/15/22 00:17	96-12-8	
Dibromochloromethane	**<262**	ug/kg	384	262	1	04/14/22 13:00	04/15/22 00:17	124-48-1	
1,2-Dibromoethane (EDB)	**<21.0**	ug/kg	76.7	21.0	1	04/14/22 13:00	04/15/22 00:17	106-93-4	
Dibromomethane	**<22.7**	ug/kg	76.7	22.7	1	04/14/22 13:00	04/15/22 00:17	74-95-3	
1,2-Dichlorobenzene	**<23.8**	ug/kg	76.7	23.8	1	04/14/22 13:00	04/15/22 00:17	95-50-1	
1,3-Dichlorobenzene	**<21.0**	ug/kg	76.7	21.0	1	04/14/22 13:00	04/15/22 00:17	541-73-1	
1,4-Dichlorobenzene	**<21.0**	ug/kg	76.7	21.0	1	04/14/22 13:00	04/15/22 00:17	106-46-7	
Dichlorodifluoromethane	**<33.0**	ug/kg	76.7	33.0	1	04/14/22 13:00	04/15/22 00:17	75-71-8	
1,1-Dichloroethane	**<19.6**	ug/kg	76.7	19.6	1	04/14/22 13:00	04/15/22 00:17	75-34-3	
1,2-Dichloroethane	**<17.7**	ug/kg	76.7	17.7	1	04/14/22 13:00	04/15/22 00:17	107-06-2	
1,1-Dichloroethene	**<25.5**	ug/kg	76.7	25.5	1	04/14/22 13:00	04/15/22 00:17	75-35-4	
cis-1,2-Dichloroethene	**<16.4**	ug/kg	76.7	16.4	1	04/14/22 13:00	04/15/22 00:17	156-59-2	
trans-1,2-Dichloroethene	**<16.6**	ug/kg	76.7	16.6	1	04/14/22 13:00	04/15/22 00:17	156-60-5	
1,2-Dichloropropane	**<18.3**	ug/kg	76.7	18.3	1	04/14/22 13:00	04/15/22 00:17	78-87-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 3 **Lab ID: 40243288003** Collected: 04/08/22 09:45 Received: 04/12/22 08:25 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								
1,3-Dichloropropane	**<16.7**	ug/kg	76.7	16.7	1	04/14/22 13:00	04/15/22 00:17	142-28-9	
2,2-Dichloropropane	**<20.7**	ug/kg	76.7	20.7	1	04/14/22 13:00	04/15/22 00:17	594-20-7	
1,1-Dichloropropene	**<24.9**	ug/kg	76.7	24.9	1	04/14/22 13:00	04/15/22 00:17	563-58-6	
cis-1,3-Dichloropropene	**<50.7**	ug/kg	384	50.7	1	04/14/22 13:00	04/15/22 00:17	10061-01-5	
trans-1,3-Dichloropropene	**<220**	ug/kg	384	220	1	04/14/22 13:00	04/15/22 00:17	10061-02-6	
Diisopropyl ether	**<19.0**	ug/kg	76.7	19.0	1	04/14/22 13:00	04/15/22 00:17	108-20-3	
Ethylbenzene	**<18.3**	ug/kg	76.7	18.3	1	04/14/22 13:00	04/15/22 00:17	100-41-4	
Hexachloro-1,3-butadiene	**<153**	ug/kg	384	153	1	04/14/22 13:00	04/15/22 00:17	87-68-3	
Isopropylbenzene (Cumene)	**<20.7**	ug/kg	76.7	20.7	1	04/14/22 13:00	04/15/22 00:17	98-82-8	
p-Isopropyltoluene	**<23.3**	ug/kg	76.7	23.3	1	04/14/22 13:00	04/15/22 00:17	99-87-6	
Methylene Chloride	**<21.3**	ug/kg	76.7	21.3	1	04/14/22 13:00	04/15/22 00:17	75-09-2	
Methyl-tert-butyl ether	**<22.6**	ug/kg	76.7	22.6	1	04/14/22 13:00	04/15/22 00:17	1634-04-4	
Naphthalene	**<23.9**	ug/kg	384	23.9	1	04/14/22 13:00	04/15/22 00:17	91-20-3	
n-Propylbenzene	**<18.4**	ug/kg	76.7	18.4	1	04/14/22 13:00	04/15/22 00:17	103-65-1	
Styrene	**<19.6**	ug/kg	76.7	19.6	1	04/14/22 13:00	04/15/22 00:17	100-42-5	
1,1,1,2-Tetrachloroethane	**<18.4**	ug/kg	76.7	18.4	1	04/14/22 13:00	04/15/22 00:17	630-20-6	
1,1,2,2-Tetrachloroethane	**<27.8**	ug/kg	76.7	27.8	1	04/14/22 13:00	04/15/22 00:17	79-34-5	
Tetrachloroethene	**<29.8**	ug/kg	76.7	29.8	1	04/14/22 13:00	04/15/22 00:17	127-18-4	
Toluene	**<19.3**	ug/kg	76.7	19.3	1	04/14/22 13:00	04/15/22 00:17	108-88-3	
1,2,3-Trichlorobenzene	**<85.5**	ug/kg	384	85.5	1	04/14/22 13:00	04/15/22 00:17	87-61-6	
1,2,4-Trichlorobenzene	**<63.2**	ug/kg	384	63.2	1	04/14/22 13:00	04/15/22 00:17	120-82-1	
1,1,1-Trichloroethane	**<19.6**	ug/kg	76.7	19.6	1	04/14/22 13:00	04/15/22 00:17	71-55-6	
1,1,2-Trichloroethane	**<27.9**	ug/kg	76.7	27.9	1	04/14/22 13:00	04/15/22 00:17	79-00-5	
Trichloroethene	**<28.7**	ug/kg	76.7	28.7	1	04/14/22 13:00	04/15/22 00:17	79-01-6	
Trichlorofluoromethane	**<22.3**	ug/kg	76.7	22.3	1	04/14/22 13:00	04/15/22 00:17	75-69-4	
1,2,3-Trichloropropane	**<37.3**	ug/kg	76.7	37.3	1	04/14/22 13:00	04/15/22 00:17	96-18-4	
1,2,4-Trimethylbenzene	**<22.9**	ug/kg	76.7	22.9	1	04/14/22 13:00	04/15/22 00:17	95-63-6	
1,3,5-Trimethylbenzene	**<24.7**	ug/kg	76.7	24.7	1	04/14/22 13:00	04/15/22 00:17	108-67-8	
Vinyl chloride	**<15.5**	ug/kg	76.7	15.5	1	04/14/22 13:00	04/15/22 00:17	75-01-4	
m&p-Xylene	**<32.4**	ug/kg	153	32.4	1	04/14/22 13:00	04/15/22 00:17	179601-23-1	
o-Xylene	**<23.0**	ug/kg	76.7	23.0	1	04/14/22 13:00	04/15/22 00:17	95-47-6	
Surrogates									
Toluene-d8 (S)	107	%	67-159		1	04/14/22 13:00	04/15/22 00:17	2037-26-5	
4-Bromofluorobenzene (S)	106	%	66-153		1	04/14/22 13:00	04/15/22 00:17	460-00-4	
1,2-Dichlorobenzene-d4 (S)	107	%	82-158		1	04/14/22 13:00	04/15/22 00:17	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**21.1**	%	0.10	0.10	1		04/13/22 13:11		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 4 **Lab ID: 40243288004** Collected: 04/08/22 11:00 Received: 04/12/22 08:25 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8082A GCS PCB	Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay								
PCB-1016 (Aroclor 1016)	**<19.4**	ug/kg	63.7	19.4	1	04/15/22 08:59	04/16/22 00:42	12674-11-2	
PCB-1221 (Aroclor 1221)	**<19.4**	ug/kg	63.7	19.4	1	04/15/22 08:59	04/16/22 00:42	11104-28-2	
PCB-1232 (Aroclor 1232)	**<19.4**	ug/kg	63.7	19.4	1	04/15/22 08:59	04/16/22 00:42	11141-16-5	
PCB-1242 (Aroclor 1242)	**<19.4**	ug/kg	63.7	19.4	1	04/15/22 08:59	04/16/22 00:42	53469-21-9	
PCB-1248 (Aroclor 1248)	**<19.4**	ug/kg	63.7	19.4	1	04/15/22 08:59	04/16/22 00:42	12672-29-6	
PCB-1254 (Aroclor 1254)	**<19.4**	ug/kg	63.7	19.4	1	04/15/22 08:59	04/16/22 00:42	11097-69-1	
PCB-1260 (Aroclor 1260)	**<19.4**	ug/kg	63.7	19.4	1	04/15/22 08:59	04/16/22 00:42	11096-82-5	
PCB, Total	**<19.4**	ug/kg	63.7	19.4	1	04/15/22 08:59	04/16/22 00:42	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	93	%	50-99		1	04/15/22 08:59	04/16/22 00:42	877-09-8	
Decachlorobiphenyl (S)	87	%	38-95		1	04/15/22 08:59	04/16/22 00:42	2051-24-3	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Green Bay								
Arsenic	**5.9J**	mg/kg	6.0	3.5	2	04/13/22 07:26	04/14/22 12:05	7440-38-2	D3
Barium	**62.4**	mg/kg	1.2	0.36	2	04/13/22 07:26	04/14/22 12:05	7440-39-3	
Cadmium	**<0.32**	mg/kg	1.2	0.32	2	04/13/22 07:26	04/14/22 12:05	7440-43-9	D3
Chromium	**12.4**	mg/kg	2.4	0.67	2	04/13/22 07:26	04/14/22 12:05	7440-47-3	
Lead	**17.8**	mg/kg	4.8	1.4	2	04/13/22 07:26	04/14/22 12:05	7439-92-1	
Selenium	**<3.2**	mg/kg	9.6	3.2	2	04/13/22 07:26	04/14/22 12:05	7782-49-2	D3
Silver	**<0.74**	mg/kg	2.4	0.74	2	04/13/22 07:26	04/14/22 12:05	7440-22-4	D3
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471 Pace Analytical Services - Green Bay								
Mercury	**0.019J**	mg/kg	0.040	0.011	1	04/18/22 10:05	04/19/22 09:34	7439-97-6	
8270E MSSV FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<301**	ug/kg	1000	301	4	04/14/22 10:23	04/18/22 20:23	83-32-9	
Acenaphthylene	**<303**	ug/kg	1010	303	4	04/14/22 10:23	04/18/22 20:23	208-96-8	
Anthracene	**955**	ug/kg	452	136	4	04/14/22 10:23	04/18/22 20:23	120-12-7	
Benzo(a)anthracene	**1430**	ug/kg	438	131	4	04/14/22 10:23	04/18/22 20:23	56-55-3	
Benzo(a)pyrene	**1010**	ug/kg	426	128	4	04/14/22 10:23	04/18/22 20:23	50-32-8	
Benzo(b)fluoranthene	**1350**	ug/kg	486	146	4	04/14/22 10:23	04/18/22 20:23	205-99-2	
Benzo(g,h,i)perylene	**601J**	ug/kg	740	222	4	04/14/22 10:23	04/18/22 20:23	191-24-2	
Benzo(k)fluoranthene	**508J**	ug/kg	677	203	4	04/14/22 10:23	04/18/22 20:23	207-08-9	
4-Bromophenylphenyl ether	**<178**	ug/kg	592	178	4	04/14/22 10:23	04/18/22 20:23	101-55-3	
Butylbenzylphthalate	**<136**	ug/kg	453	136	4	04/14/22 10:23	04/18/22 20:23	85-68-7	
Carbazole	**222J**	ug/kg	443	133	4	04/14/22 10:23	04/18/22 20:23	86-74-8	
4-Chloro-3-methylphenol	**<264**	ug/kg	880	264	4	04/14/22 10:23	04/18/22 20:23	59-50-7	
4-Chloroaniline	**<139**	ug/kg	465	139	4	04/14/22 10:23	04/18/22 20:23	106-47-8	1q
bis(2-Chloroethoxy)methane	**<228**	ug/kg	762	228	4	04/14/22 10:23	04/18/22 20:23	111-91-1	
bis(2-Chloroethyl) ether	**<265**	ug/kg	883	265	4	04/14/22 10:23	04/18/22 20:23	111-44-4	
2-Chloronaphthalene	**<109**	ug/kg	363	109	4	04/14/22 10:23	04/18/22 20:23	91-58-7	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 4 **Lab ID: 40243288004** Collected: 04/08/22 11:00 Received: 04/12/22 08:25 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 FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
2-Chlorophenol	**<212**	ug/kg	706	212	4	04/14/22 10:23	04/18/22 20:23	95-57-8	
4-Chlorophenylphenyl ether	**<158**	ug/kg	527	158	4	04/14/22 10:23	04/18/22 20:23	7005-72-3	
Chrysene	**1310**	ug/kg	423	127	4	04/14/22 10:23	04/18/22 20:23	218-01-9	
Dibenz(a,h)anthracene	**<230**	ug/kg	768	230	4	04/14/22 10:23	04/18/22 20:23	53-70-3	
Dibenzofuran	**307J**	ug/kg	342	103	4	04/14/22 10:23	04/18/22 20:23	132-64-9	
1,2-Dichlorobenzene	**<267**	ug/kg	889	267	4	04/14/22 10:23	04/18/22 20:23	95-50-1	
1,3-Dichlorobenzene	**<117**	ug/kg	392	117	4	04/14/22 10:23	04/18/22 20:23	541-73-1	
1,4-Dichlorobenzene	**<118**	ug/kg	394	118	4	04/14/22 10:23	04/18/22 20:23	106-46-7	
3,3'-Dichlorobenzidine	**<230**	ug/kg	767	230	4	04/14/22 10:23	04/18/22 20:23	91-94-1	
2,4-Dichlorophenol	**<227**	ug/kg	756	227	4	04/14/22 10:23	04/18/22 20:23	120-83-2	
Diethylphthalate	**<141**	ug/kg	469	141	4	04/14/22 10:23	04/18/22 20:23	84-66-2	
2,4-Dimethylphenol	**<168**	ug/kg	559	168	4	04/14/22 10:23	04/18/22 20:23	105-67-9	
Dimethylphthalate	**<110**	ug/kg	368	110	4	04/14/22 10:23	04/18/22 20:23	131-11-3	
Di-n-butylphthalate	**<127**	ug/kg	423	127	4	04/14/22 10:23	04/18/22 20:23	84-74-2	
4,6-Dinitro-2-methylphenol	**<262**	ug/kg	872	262	4	04/14/22 10:23	04/18/22 20:23	534-52-1	
2,4-Dinitrophenol	**<258**	ug/kg	861	258	4	04/14/22 10:23	04/18/22 20:23	51-28-5	
2,4-Dinitrotoluene	**<121**	ug/kg	404	121	4	04/14/22 10:23	04/18/22 20:23	121-14-2	
2,6-Dinitrotoluene	**<161**	ug/kg	537	161	4	04/14/22 10:23	04/18/22 20:23	606-20-2	
Di-n-octylphthalate	**<191**	ug/kg	636	191	4	04/14/22 10:23	04/18/22 20:23	117-84-0	
bis(2-Ethylhexyl)phthalate	**<141**	ug/kg	470	141	4	04/14/22 10:23	04/18/22 20:23	117-81-7	
Fluoranthene	**3710**	ug/kg	400	120	4	04/14/22 10:23	04/18/22 20:23	206-44-0	
Fluorene	**522**	ug/kg	331	99.2	4	04/14/22 10:23	04/18/22 20:23	86-73-7	
Hexachloro-1,3-butadiene	**<216**	ug/kg	720	216	4	04/14/22 10:23	04/18/22 20:23	87-68-3	
Hexachlorobenzene	**<143**	ug/kg	476	143	4	04/14/22 10:23	04/18/22 20:23	118-74-1	
Hexachlorocyclopentadiene	**<201**	ug/kg	669	201	4	04/14/22 10:23	04/18/22 20:23	77-47-4	
Hexachloroethane	**<136**	ug/kg	453	136	4	04/14/22 10:23	04/18/22 20:23	67-72-1	
Indeno(1,2,3-cd)pyrene	**706**	ug/kg	612	184	4	04/14/22 10:23	04/18/22 20:23	193-39-5	
Isophorone	**<130**	ug/kg	435	130	4	04/14/22 10:23	04/18/22 20:23	78-59-1	
2-Methylnaphthalene	**<220**	ug/kg	734	220	4	04/14/22 10:23	04/18/22 20:23	91-57-6	
2-Methylphenol(o-Cresol)	**<154**	ug/kg	514	154	4	04/14/22 10:23	04/18/22 20:23	95-48-7	
3&4-Methylphenol(m&p Cresol)	**<155**	ug/kg	518	155	4	04/14/22 10:23	04/18/22 20:23		
Naphthalene	**<297**	ug/kg	989	297	4	04/14/22 10:23	04/18/22 20:23	91-20-3	
2-Nitroaniline	**<242**	ug/kg	806	242	4	04/14/22 10:23	04/18/22 20:23	88-74-4	
3-Nitroaniline	**<144**	ug/kg	481	144	4	04/14/22 10:23	04/18/22 20:23	99-09-2	
4-Nitroaniline	**<352**	ug/kg	1170	352	4	04/14/22 10:23	04/18/22 20:23	100-01-6	
Nitrobenzene	**<172**	ug/kg	573	172	4	04/14/22 10:23	04/18/22 20:23	98-95-3	
2-Nitrophenol	**<268**	ug/kg	893	268	4	04/14/22 10:23	04/18/22 20:23	88-75-5	
4-Nitrophenol	**<214**	ug/kg	712	214	4	04/14/22 10:23	04/18/22 20:23	100-02-7	
N-Nitroso-di-n-propylamine	**<135**	ug/kg	449	135	4	04/14/22 10:23	04/18/22 20:23	621-64-7	
N-Nitrosodiphenylamine	**<1150**	ug/kg	3840	1150	4	04/14/22 10:23	04/18/22 20:23	86-30-6	
2,2'-Oxybis(1-chloropropane)	**<219**	ug/kg	729	219	4	04/14/22 10:23	04/18/22 20:23	108-60-1	
Pentachlorophenol	**<187**	ug/kg	623	187	4	04/14/22 10:23	04/18/22 20:23	87-86-5	
Phenanthrene	**3230**	ug/kg	363	109	4	04/14/22 10:23	04/18/22 20:23	85-01-8	
Phenol	**<201**	ug/kg	671	201	4	04/14/22 10:23	04/18/22 20:23	108-95-2	D3

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 4 **Lab ID: 40243288004** Collected: 04/08/22 11:00 Received: 04/12/22 08:25 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 FULL LIST MICROWAVE	Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Pyrene	**2600**	ug/kg	627	188	4	04/14/22 10:23	04/18/22 20:23	129-00-0	
1,2,4-Trichlorobenzene	**<95.9**	ug/kg	320	95.9	4	04/14/22 10:23	04/18/22 20:23	120-82-1	
2,4,5-Trichlorophenol	**<150**	ug/kg	500	150	4	04/14/22 10:23	04/18/22 20:23	95-95-4	
2,4,6-Trichlorophenol	**<129**	ug/kg	431	129	4	04/14/22 10:23	04/18/22 20:23	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	68	%	10-125		4	04/14/22 10:23	04/18/22 20:23	4165-60-0	
2-Fluorobiphenyl (S)	57	%	12-118		4	04/14/22 10:23	04/18/22 20:23	321-60-8	
Terphenyl-d14 (S)	58	%	10-124		4	04/14/22 10:23	04/18/22 20:23	1718-51-0	
Phenol-d6 (S)	52	%	10-125		4	04/14/22 10:23	04/18/22 20:23	13127-88-3	
2-Fluorophenol (S)	40	%	10-130		4	04/14/22 10:23	04/18/22 20:23	367-12-4	
2,4,6-Tribromophenol (S)	22	%	10-144		4	04/14/22 10:23	04/18/22 20:23	118-79-6	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Benzene	**<18.4**	ug/kg	30.9	18.4	1	04/13/22 08:00	04/14/22 12:34	71-43-2	
Bromobenzene	**<30.1**	ug/kg	77.2	30.1	1	04/13/22 08:00	04/14/22 12:34	108-86-1	
Bromochloromethane	**<21.2**	ug/kg	77.2	21.2	1	04/13/22 08:00	04/14/22 12:34	74-97-5	
Bromodichloromethane	**<18.4**	ug/kg	77.2	18.4	1	04/13/22 08:00	04/14/22 12:34	75-27-4	
Bromoform	**<340**	ug/kg	386	340	1	04/13/22 08:00	04/14/22 12:34	75-25-2	
Bromomethane	**<108**	ug/kg	386	108	1	04/13/22 08:00	04/14/22 12:34	74-83-9	
n-Butylbenzene	**<35.4**	ug/kg	77.2	35.4	1	04/13/22 08:00	04/14/22 12:34	104-51-8	
sec-Butylbenzene	**<18.8**	ug/kg	77.2	18.8	1	04/13/22 08:00	04/14/22 12:34	135-98-8	
tert-Butylbenzene	**<24.3**	ug/kg	77.2	24.3	1	04/13/22 08:00	04/14/22 12:34	98-06-6	
Carbon tetrachloride	**<17.0**	ug/kg	77.2	17.0	1	04/13/22 08:00	04/14/22 12:34	56-23-5	
Chlorobenzene	**<9.3**	ug/kg	77.2	9.3	1	04/13/22 08:00	04/14/22 12:34	108-90-7	
Chloroethane	**<32.6**	ug/kg	386	32.6	1	04/13/22 08:00	04/14/22 12:34	75-00-3	
Chloroform	**<55.3**	ug/kg	386	55.3	1	04/13/22 08:00	04/14/22 12:34	67-66-3	
Chloromethane	**<29.4**	ug/kg	77.2	29.4	1	04/13/22 08:00	04/14/22 12:34	74-87-3	
2-Chlorotoluene	**<25.0**	ug/kg	77.2	25.0	1	04/13/22 08:00	04/14/22 12:34	95-49-8	
4-Chlorotoluene	**<29.4**	ug/kg	77.2	29.4	1	04/13/22 08:00	04/14/22 12:34	106-43-4	
1,2-Dibromo-3-chloropropane	**<59.9**	ug/kg	386	59.9	1	04/13/22 08:00	04/14/22 12:34	96-12-8	
Dibromochloromethane	**<264**	ug/kg	386	264	1	04/13/22 08:00	04/14/22 12:34	124-48-1	
1,2-Dibromoethane (EDB)	**<21.2**	ug/kg	77.2	21.2	1	04/13/22 08:00	04/14/22 12:34	106-93-4	
Dibromomethane	**<22.9**	ug/kg	77.2	22.9	1	04/13/22 08:00	04/14/22 12:34	74-95-3	
1,2-Dichlorobenzene	**<23.9**	ug/kg	77.2	23.9	1	04/13/22 08:00	04/14/22 12:34	95-50-1	
1,3-Dichlorobenzene	**<21.2**	ug/kg	77.2	21.2	1	04/13/22 08:00	04/14/22 12:34	541-73-1	
1,4-Dichlorobenzene	**<21.2**	ug/kg	77.2	21.2	1	04/13/22 08:00	04/14/22 12:34	106-46-7	
Dichlorodifluoromethane	**<33.2**	ug/kg	77.2	33.2	1	04/13/22 08:00	04/14/22 12:34	75-71-8	
1,1-Dichloroethane	**<19.8**	ug/kg	77.2	19.8	1	04/13/22 08:00	04/14/22 12:34	75-34-3	
1,2-Dichloroethane	**<17.8**	ug/kg	77.2	17.8	1	04/13/22 08:00	04/14/22 12:34	107-06-2	
1,1-Dichloroethene	**<25.6**	ug/kg	77.2	25.6	1	04/13/22 08:00	04/14/22 12:34	75-35-4	
cis-1,2-Dichloroethene	**<16.5**	ug/kg	77.2	16.5	1	04/13/22 08:00	04/14/22 12:34	156-59-2	
trans-1,2-Dichloroethene	**<16.7**	ug/kg	77.2	16.7	1	04/13/22 08:00	04/14/22 12:34	156-60-5	
1,2-Dichloropropane	**<18.4**	ug/kg	77.2	18.4	1	04/13/22 08:00	04/14/22 12:34	78-87-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Sample: 4 **Lab ID: 40243288004** Collected: 04/08/22 11:00 Received: 04/12/22 08:25 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								
1,3-Dichloropropane	**<16.8**	ug/kg	77.2	16.8	1	04/13/22 08:00	04/14/22 12:34	142-28-9	
2,2-Dichloropropane	**<20.9**	ug/kg	77.2	20.9	1	04/13/22 08:00	04/14/22 12:34	594-20-7	
1,1-Dichloropropene	**<25.0**	ug/kg	77.2	25.0	1	04/13/22 08:00	04/14/22 12:34	563-58-6	
cis-1,3-Dichloropropene	**<51.0**	ug/kg	386	51.0	1	04/13/22 08:00	04/14/22 12:34	10061-01-5	
trans-1,3-Dichloropropene	**<221**	ug/kg	386	221	1	04/13/22 08:00	04/14/22 12:34	10061-02-6	
Diisopropyl ether	**<19.2**	ug/kg	77.2	19.2	1	04/13/22 08:00	04/14/22 12:34	108-20-3	
Ethylbenzene	**<18.4**	ug/kg	77.2	18.4	1	04/13/22 08:00	04/14/22 12:34	100-41-4	
Hexachloro-1,3-butadiene	**<154**	ug/kg	386	154	1	04/13/22 08:00	04/14/22 12:34	87-68-3	
Isopropylbenzene (Cumene)	**<20.9**	ug/kg	77.2	20.9	1	04/13/22 08:00	04/14/22 12:34	98-82-8	
p-Isopropyltoluene	**<23.5**	ug/kg	77.2	23.5	1	04/13/22 08:00	04/14/22 12:34	99-87-6	
Methylene Chloride	**<21.5**	ug/kg	77.2	21.5	1	04/13/22 08:00	04/14/22 12:34	75-09-2	
Methyl-tert-butyl ether	**<22.7**	ug/kg	77.2	22.7	1	04/13/22 08:00	04/14/22 12:34	1634-04-4	
Naphthalene	**72.4J**	ug/kg	386	24.1	1	04/13/22 08:00	04/14/22 12:34	91-20-3	
n-Propylbenzene	**<18.5**	ug/kg	77.2	18.5	1	04/13/22 08:00	04/14/22 12:34	103-65-1	
Styrene	**<19.8**	ug/kg	77.2	19.8	1	04/13/22 08:00	04/14/22 12:34	100-42-5	
1,1,1,2-Tetrachloroethane	**<18.5**	ug/kg	77.2	18.5	1	04/13/22 08:00	04/14/22 12:34	630-20-6	
1,1,2,2-Tetrachloroethane	**<28.0**	ug/kg	77.2	28.0	1	04/13/22 08:00	04/14/22 12:34	79-34-5	
Tetrachloroethene	**<30.0**	ug/kg	77.2	30.0	1	04/13/22 08:00	04/14/22 12:34	127-18-4	
Toluene	**<19.5**	ug/kg	77.2	19.5	1	04/13/22 08:00	04/14/22 12:34	108-88-3	
1,2,3-Trichlorobenzene	**<86.0**	ug/kg	386	86.0	1	04/13/22 08:00	04/14/22 12:34	87-61-6	
1,2,4-Trichlorobenzene	**<63.6**	ug/kg	386	63.6	1	04/13/22 08:00	04/14/22 12:34	120-82-1	
1,1,1-Trichloroethane	**<19.8**	ug/kg	77.2	19.8	1	04/13/22 08:00	04/14/22 12:34	71-55-6	
1,1,2-Trichloroethane	**<28.1**	ug/kg	77.2	28.1	1	04/13/22 08:00	04/14/22 12:34	79-00-5	
Trichloroethene	**<28.9**	ug/kg	77.2	28.9	1	04/13/22 08:00	04/14/22 12:34	79-01-6	
Trichlorofluoromethane	**<22.4**	ug/kg	77.2	22.4	1	04/13/22 08:00	04/14/22 12:34	75-69-4	
1,2,3-Trichloropropane	**<37.5**	ug/kg	77.2	37.5	1	04/13/22 08:00	04/14/22 12:34	96-18-4	
1,2,4-Trimethylbenzene	**<23.0**	ug/kg	77.2	23.0	1	04/13/22 08:00	04/14/22 12:34	95-63-6	
1,3,5-Trimethylbenzene	**<24.9**	ug/kg	77.2	24.9	1	04/13/22 08:00	04/14/22 12:34	108-67-8	
Vinyl chloride	**<15.6**	ug/kg	77.2	15.6	1	04/13/22 08:00	04/14/22 12:34	75-01-4	
m&p-Xylene	**<32.6**	ug/kg	154	32.6	1	04/13/22 08:00	04/14/22 12:34	179601-23-1	
o-Xylene	**<23.2**	ug/kg	77.2	23.2	1	04/13/22 08:00	04/14/22 12:34	95-47-6	
Surrogates									
Toluene-d8 (S)	118	%	67-159		1	04/13/22 08:00	04/14/22 12:34	2037-26-5	
4-Bromofluorobenzene (S)	119	%	66-153		1	04/13/22 08:00	04/14/22 12:34	460-00-4	
1,2-Dichlorobenzene-d4 (S)	120	%	82-158		1	04/13/22 08:00	04/14/22 12:34	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**21.4**	%	0.10	0.10	1		04/13/22 13:11		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

QC Batch: 413398 | Analysis Method: EPA 7471
QC Batch Method: EPA 7471 | Analysis Description: 7471 Mercury
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40243288001, 40243288002, 40243288003, 40243288004

METHOD BLANK: 2380665 Matrix: Solid
Associated Lab Samples: 40243288001, 40243288002, 40243288003, 40243288004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.010	0.035	04/19/22 08:36	

LABORATORY CONTROL SAMPLE: 2380666

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.83	0.84	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2380667 2380668

Parameter	Units	40243410001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	<0.011	0.93	0.93	0.95	0.97	103	104	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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

QC Batch: 412994
QC Batch Method: EPA 3050B
Analysis Method: EPA 6010D
Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40243288001, 40243288002, 40243288003, 40243288004

METHOD BLANK: 2377991 Matrix: Solid
Associated Lab Samples: 40243288001, 40243288002, 40243288003, 40243288004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.5	2.5	04/13/22 16:00	
Barium	mg/kg	<0.15	0.50	04/13/22 16:00	
Cadmium	mg/kg	<0.13	0.50	04/13/22 16:00	
Chromium	mg/kg	<0.28	1.0	04/13/22 16:00	
Lead	mg/kg	<0.60	2.0	04/13/22 16:00	
Selenium	mg/kg	<1.3	4.0	04/13/22 16:00	
Silver	mg/kg	<0.31	1.0	04/13/22 16:00	

LABORATORY CONTROL SAMPLE: 2377992

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	25	24.8	99	80-120	
Barium	mg/kg	25	26.6	106	80-120	
Cadmium	mg/kg	25	26.5	106	80-120	
Chromium	mg/kg	25	25.8	103	80-120	
Lead	mg/kg	25	26.6	107	80-120	
Selenium	mg/kg	25	26.6	106	80-120	
Silver	mg/kg	12.5	13.4	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2377993 2377994

Parameter	Units	40243288001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	5.7J	31.4	31.5	36.2	34.0	97	90	75-125	6	20	
Barium	mg/kg	68.1	31.4	31.5	150	138	262	223	75-125	8	20	M0
Cadmium	mg/kg	<0.33	31.4	31.5	32.3	32.1	102	101	75-125	0	20	
Chromium	mg/kg	25.2	31.4	31.5	70.3	69.4	143	140	75-125	1	20	M0
Lead	mg/kg	12.8	31.4	31.5	47.2	43.7	109	98	75-125	8	20	
Selenium	mg/kg	<3.3	31.4	31.5	32.0	30.6	102	97	75-125	5	20	
Silver	mg/kg	<0.77	15.7	15.7	16.1	16.4	102	104	75-125	2	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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

QC Batch: 413056
QC Batch Method: EPA 5035/5030B
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Med Level Normal List
Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40243288004

METHOD BLANK: 2378290 Matrix: Solid
Associated Lab Samples: 40243288004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<12.0	50.0	04/14/22 10:12	
1,1,1-Trichloroethane	ug/kg	<12.8	50.0	04/14/22 10:12	
1,1,2,2-Tetrachloroethane	ug/kg	<18.1	50.0	04/14/22 10:12	
1,1,2-Trichloroethane	ug/kg	<18.2	50.0	04/14/22 10:12	
1,1-Dichloroethane	ug/kg	<12.8	50.0	04/14/22 10:12	
1,1-Dichloroethene	ug/kg	<16.6	50.0	04/14/22 10:12	
1,1-Dichloropropene	ug/kg	<16.2	50.0	04/14/22 10:12	
1,2,3-Trichlorobenzene	ug/kg	<55.7	250	04/14/22 10:12	
1,2,3-Trichloropropane	ug/kg	<24.3	50.0	04/14/22 10:12	
1,2,4-Trichlorobenzene	ug/kg	<41.2	250	04/14/22 10:12	
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	04/14/22 10:12	
1,2-Dibromo-3-chloropropane	ug/kg	<38.8	250	04/14/22 10:12	
1,2-Dibromoethane (EDB)	ug/kg	<13.7	50.0	04/14/22 10:12	
1,2-Dichlorobenzene	ug/kg	<15.5	50.0	04/14/22 10:12	
1,2-Dichloroethane	ug/kg	<11.5	50.0	04/14/22 10:12	
1,2-Dichloropropane	ug/kg	<11.9	50.0	04/14/22 10:12	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	04/14/22 10:12	
1,3-Dichlorobenzene	ug/kg	<13.7	50.0	04/14/22 10:12	
1,3-Dichloropropane	ug/kg	<10.9	50.0	04/14/22 10:12	
1,4-Dichlorobenzene	ug/kg	<13.7	50.0	04/14/22 10:12	
2,2-Dichloropropane	ug/kg	<13.5	50.0	04/14/22 10:12	
2-Chlorotoluene	ug/kg	<16.2	50.0	04/14/22 10:12	
4-Chlorotoluene	ug/kg	<19.0	50.0	04/14/22 10:12	
Benzene	ug/kg	<11.9	20.0	04/14/22 10:12	
Bromobenzene	ug/kg	<19.5	50.0	04/14/22 10:12	
Bromochloromethane	ug/kg	<13.7	50.0	04/14/22 10:12	
Bromodichloromethane	ug/kg	<11.9	50.0	04/14/22 10:12	
Bromoform	ug/kg	<220	250	04/14/22 10:12	
Bromomethane	ug/kg	<70.1	250	04/14/22 10:12	
Carbon tetrachloride	ug/kg	<11.0	50.0	04/14/22 10:12	
Chlorobenzene	ug/kg	<6.0	50.0	04/14/22 10:12	
Chloroethane	ug/kg	<21.1	250	04/14/22 10:12	
Chloroform	ug/kg	<35.8	250	04/14/22 10:12	
Chloromethane	ug/kg	<19.0	50.0	04/14/22 10:12	
cis-1,2-Dichloroethene	ug/kg	<10.7	50.0	04/14/22 10:12	
cis-1,3-Dichloropropene	ug/kg	<33.0	250	04/14/22 10:12	
Dibromochloromethane	ug/kg	<171	250	04/14/22 10:12	
Dibromomethane	ug/kg	<14.8	50.0	04/14/22 10:12	
Dichlorodifluoromethane	ug/kg	<21.5	50.0	04/14/22 10:12	
Diisopropyl ether	ug/kg	<12.4	50.0	04/14/22 10:12	

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

METHOD BLANK: 2378290 Matrix: Solid
Associated Lab Samples: 40243288004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/kg	<11.9	50.0	04/14/22 10:12	
Hexachloro-1,3-butadiene	ug/kg	<99.4	250	04/14/22 10:12	
Isopropylbenzene (Cumene)	ug/kg	<13.5	50.0	04/14/22 10:12	
m&p-Xylene	ug/kg	<21.1	100	04/14/22 10:12	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	04/14/22 10:12	
Methylene Chloride	ug/kg	<13.9	50.0	04/14/22 10:12	
n-Butylbenzene	ug/kg	<22.9	50.0	04/14/22 10:12	
n-Propylbenzene	ug/kg	<12.0	50.0	04/14/22 10:12	
Naphthalene	ug/kg	<15.6	250	04/14/22 10:12	
o-Xylene	ug/kg	<15.0	50.0	04/14/22 10:12	
p-Isopropyltoluene	ug/kg	<15.2	50.0	04/14/22 10:12	
sec-Butylbenzene	ug/kg	<12.2	50.0	04/14/22 10:12	
Styrene	ug/kg	<12.8	50.0	04/14/22 10:12	
tert-Butylbenzene	ug/kg	<15.7	50.0	04/14/22 10:12	
Tetrachloroethene	ug/kg	<19.4	50.0	04/14/22 10:12	
Toluene	ug/kg	<12.6	50.0	04/14/22 10:12	
trans-1,2-Dichloroethene	ug/kg	<10.8	50.0	04/14/22 10:12	
trans-1,3-Dichloropropene	ug/kg	<143	250	04/14/22 10:12	
Trichloroethene	ug/kg	<18.7	50.0	04/14/22 10:12	
Trichlorofluoromethane	ug/kg	<14.5	50.0	04/14/22 10:12	
Vinyl chloride	ug/kg	<10.1	50.0	04/14/22 10:12	
1,2-Dichlorobenzene-d4 (S)	%	110	82-158	04/14/22 10:12	
4-Bromofluorobenzene (S)	%	109	66-153	04/14/22 10:12	
Toluene-d8 (S)	%	103	67-159	04/14/22 10:12	

LABORATORY CONTROL SAMPLE: 2378291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2360	94	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2420	97	65-129	
1,1,2-Trichloroethane	ug/kg	2500	2290	92	70-130	
1,1-Dichloroethane	ug/kg	2500	2220	89	70-130	
1,1-Dichloroethene	ug/kg	2500	2160	86	67-120	
1,2,4-Trichlorobenzene	ug/kg	2500	2300	92	64-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2270	91	57-119	
1,2-Dibromoethane (EDB)	ug/kg	2500	2250	90	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2340	94	70-130	
1,2-Dichloroethane	ug/kg	2500	2320	93	70-130	
1,2-Dichloropropane	ug/kg	2500	2180	87	72-118	
1,3-Dichlorobenzene	ug/kg	2500	2330	93	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2290	91	70-130	
Benzene	ug/kg	2500	2230	89	70-130	
Bromodichloromethane	ug/kg	2500	2310	92	70-130	
Bromoform	ug/kg	2500	2080	83	66-130	

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

LABORATORY CONTROL SAMPLE: 2378291

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/kg	2500	1990	79	13-153	
Carbon tetrachloride	ug/kg	2500	2370	95	73-134	
Chlorobenzene	ug/kg	2500	2350	94	70-130	
Chloroethane	ug/kg	2500	2210	88	19-170	
Chloroform	ug/kg	2500	2290	91	79-120	
Chloromethane	ug/kg	2500	1910	76	45-117	
cis-1,2-Dichloroethene	ug/kg	2500	2210	88	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2180	87	68-130	
Dibromochloromethane	ug/kg	2500	2360	95	70-130	
Dichlorodifluoromethane	ug/kg	2500	1280	51	15-135	
Ethylbenzene	ug/kg	2500	2270	91	78-120	
Isopropylbenzene (Cumene)	ug/kg	2500	2230	89	70-130	
m&p-Xylene	ug/kg	5000	4480	90	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2190	88	65-130	
Methylene Chloride	ug/kg	2500	2300	92	70-130	
o-Xylene	ug/kg	2500	2240	90	70-130	
Styrene	ug/kg	2500	2320	93	70-130	
Tetrachloroethene	ug/kg	2500	2270	91	70-130	
Toluene	ug/kg	2500	2300	92	76-120	
trans-1,2-Dichloroethene	ug/kg	2500	2320	93	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2200	88	70-130	
Trichloroethene	ug/kg	2500	2280	91	70-130	
Trichlorofluoromethane	ug/kg	2500	2010	80	49-153	
Vinyl chloride	ug/kg	2500	2090	84	58-121	
1,2-Dichlorobenzene-d4 (S)	%			93	82-158	
4-Bromofluorobenzene (S)	%			93	66-153	
Toluene-d8 (S)	%			94	67-159	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2378292 2378293

Parameter	Units	40243307012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/kg	<16.8	1320	1320	1240	1150	94	88	70-130	7	20	
1,1,2,2-Tetrachloroethane	ug/kg	<23.8	1320	1320	1430	1440	109	110	65-129	1	20	
1,1,2-Trichloroethane	ug/kg	<23.9	1320	1320	1360	1360	104	103	70-130	0	20	
1,1-Dichloroethane	ug/kg	<16.8	1320	1320	1270	1230	97	94	70-130	3	20	
1,1-Dichloroethene	ug/kg	<21.8	1320	1320	1170	1100	89	84	64-120	6	20	
1,2,4-Trichlorobenzene	ug/kg	<54.1	1320	1320	1440	1360	109	104	64-130	5	20	
1,2-Dibromo-3-chloropropane	ug/kg	<51.0	1320	1320	1310	1300	100	99	57-130	0	21	
1,2-Dibromoethane (EDB)	ug/kg	<18.0	1320	1320	1270	1280	97	97	70-130	1	20	
1,2-Dichlorobenzene	ug/kg	<20.4	1320	1320	1410	1380	108	105	70-130	2	20	
1,2-Dichloroethane	ug/kg	<15.1	1320	1320	1350	1330	103	101	70-130	1	20	
1,2-Dichloropropane	ug/kg	<15.6	1320	1320	1260	1250	96	95	72-122	1	20	
1,3-Dichlorobenzene	ug/kg	<18.0	1320	1320	1380	1340	105	102	70-130	3	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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2378292 2378293

Parameter	Units	40243307012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/kg	<18.0	1320	1320	1370	1350	104	103	70-130	2	20	
Benzene	ug/kg	<15.6	1320	1320	1280	1230	97	94	70-130	3	20	
Bromodichloromethane	ug/kg	<15.6	1320	1320	1300	1290	99	98	70-130	1	20	
Bromoform	ug/kg	<289	1320	1320	1310	1270	100	96	66-130	3	20	
Bromomethane	ug/kg	<92.1	1320	1320	1140	1150	87	87	13-153	1	20	
Carbon tetrachloride	ug/kg	<14.4	1320	1320	1230	1120	94	85	67-134	10	20	
Chlorobenzene	ug/kg	<7.9	1320	1320	1340	1320	102	101	70-130	1	20	
Chloroethane	ug/kg	<27.7	1320	1320	1180	1180	90	90	11-195	0	20	
Chloroform	ug/kg	<47.0	1320	1320	1300	1280	99	98	79-120	1	20	
Chloromethane	ug/kg	<25.0	1320	1320	985	970	75	74	30-136	2	20	
cis-1,2-Dichloroethene	ug/kg	<14.1	1320	1320	1280	1230	98	93	70-130	5	20	
cis-1,3-Dichloropropene	ug/kg	<43.3	1320	1320	1220	1190	93	91	68-130	2	20	
Dibromochloromethane	ug/kg	<224	1320	1320	1280	1290	97	98	70-130	1	20	
Dichlorodifluoromethane	ug/kg	<28.2	1320	1320	522	455	40	35	10-158	14	25	
Ethylbenzene	ug/kg	<15.6	1320	1320	1260	1240	96	94	78-120	2	20	
Isopropylbenzene (Cumene)	ug/kg	<17.7	1320	1320	1220	1210	93	92	70-130	1	20	
m&p-Xylene	ug/kg	<27.7	2630	2630	2490	2450	95	93	70-130	2	20	
Methyl-tert-butyl ether	ug/kg	<19.3	1320	1320	1320	1280	100	97	65-130	3	20	
Methylene Chloride	ug/kg	<18.3	1320	1320	1330	1340	101	102	70-130	1	20	
o-Xylene	ug/kg	<19.7	1320	1320	1270	1250	97	95	70-130	2	20	
Styrene	ug/kg	<16.8	1320	1320	1310	1300	99	99	70-130	1	20	
Tetrachloroethene	ug/kg	<25.5	1320	1320	1230	1200	94	92	70-130	2	20	
Toluene	ug/kg	<16.5	1320	1320	1300	1300	99	99	76-120	0	20	
trans-1,2-Dichloroethene	ug/kg	<14.2	1320	1320	1290	1250	99	96	70-130	3	20	
trans-1,3-Dichloropropene	ug/kg	<188	1320	1320	1200	1200	91	91	70-130	0	20	
Trichloroethene	ug/kg	<24.6	1320	1320	1250	1250	95	95	70-130	0	20	
Trichlorofluoromethane	ug/kg	<19.0	1320	1320	1020	915	78	70	42-159	11	21	
Vinyl chloride	ug/kg	<13.3	1320	1320	1040	984	79	75	43-137	5	20	
1,2-Dichlorobenzene-d4 (S)	%						116	117	82-158			
4-Bromofluorobenzene (S)	%						118	118	66-153			
Toluene-d8 (S)	%						114	113	67-159			

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

QC Batch: 413206
QC Batch Method: EPA 5035/5030B
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Med Level Normal List
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40243288001, 40243288002, 40243288003

METHOD BLANK: 2379198 Matrix: Solid
Associated Lab Samples: 40243288001, 40243288002, 40243288003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<12.0	50.0	04/14/22 18:33	
1,1,1-Trichloroethane	ug/kg	<12.8	50.0	04/14/22 18:33	
1,1,2,2-Tetrachloroethane	ug/kg	<18.1	50.0	04/14/22 18:33	
1,1,2-Trichloroethane	ug/kg	<18.2	50.0	04/14/22 18:33	
1,1-Dichloroethane	ug/kg	<12.8	50.0	04/14/22 18:33	
1,1-Dichloroethene	ug/kg	<16.6	50.0	04/14/22 18:33	
1,1-Dichloropropene	ug/kg	<16.2	50.0	04/14/22 18:33	
1,2,3-Trichlorobenzene	ug/kg	<55.7	250	04/14/22 18:33	
1,2,3-Trichloropropane	ug/kg	<24.3	50.0	04/14/22 18:33	
1,2,4-Trichlorobenzene	ug/kg	<41.2	250	04/14/22 18:33	
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	04/14/22 18:33	
1,2-Dibromo-3-chloropropane	ug/kg	<38.8	250	04/14/22 18:33	
1,2-Dibromoethane (EDB)	ug/kg	<13.7	50.0	04/14/22 18:33	
1,2-Dichlorobenzene	ug/kg	<15.5	50.0	04/14/22 18:33	
1,2-Dichloroethane	ug/kg	<11.5	50.0	04/14/22 18:33	
1,2-Dichloropropane	ug/kg	<11.9	50.0	04/14/22 18:33	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	04/14/22 18:33	
1,3-Dichlorobenzene	ug/kg	<13.7	50.0	04/14/22 18:33	
1,3-Dichloropropane	ug/kg	<10.9	50.0	04/14/22 18:33	
1,4-Dichlorobenzene	ug/kg	<13.7	50.0	04/14/22 18:33	
2,2-Dichloropropane	ug/kg	<13.5	50.0	04/14/22 18:33	
2-Chlorotoluene	ug/kg	<16.2	50.0	04/14/22 18:33	
4-Chlorotoluene	ug/kg	<19.0	50.0	04/14/22 18:33	
Benzene	ug/kg	<11.9	20.0	04/14/22 18:33	
Bromobenzene	ug/kg	<19.5	50.0	04/14/22 18:33	
Bromochloromethane	ug/kg	<13.7	50.0	04/14/22 18:33	
Bromodichloromethane	ug/kg	<11.9	50.0	04/14/22 18:33	
Bromoform	ug/kg	<220	250	04/14/22 18:33	
Bromomethane	ug/kg	<70.1	250	04/14/22 18:33	
Carbon tetrachloride	ug/kg	<11.0	50.0	04/14/22 18:33	
Chlorobenzene	ug/kg	<6.0	50.0	04/14/22 18:33	
Chloroethane	ug/kg	<21.1	250	04/14/22 18:33	
Chloroform	ug/kg	<35.8	250	04/14/22 18:33	
Chloromethane	ug/kg	<19.0	50.0	04/14/22 18:33	
cis-1,2-Dichloroethene	ug/kg	<10.7	50.0	04/14/22 18:33	
cis-1,3-Dichloropropene	ug/kg	<33.0	250	04/14/22 18:33	
Dibromochloromethane	ug/kg	<171	250	04/14/22 18:33	
Dibromomethane	ug/kg	<14.8	50.0	04/14/22 18:33	
Dichlorodifluoromethane	ug/kg	<21.5	50.0	04/14/22 18:33	
Diisopropyl ether	ug/kg	<12.4	50.0	04/14/22 18:33	

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

METHOD BLANK: 2379198 Matrix: Solid
Associated Lab Samples: 40243288001, 40243288002, 40243288003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/kg	<11.9	50.0	04/14/22 18:33	
Hexachloro-1,3-butadiene	ug/kg	<99.4	250	04/14/22 18:33	
Isopropylbenzene (Cumene)	ug/kg	<13.5	50.0	04/14/22 18:33	
m&p-Xylene	ug/kg	<21.1	100	04/14/22 18:33	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	04/14/22 18:33	
Methylene Chloride	ug/kg	<13.9	50.0	04/14/22 18:33	
n-Butylbenzene	ug/kg	<22.9	50.0	04/14/22 18:33	
n-Propylbenzene	ug/kg	<12.0	50.0	04/14/22 18:33	
Naphthalene	ug/kg	<15.6	250	04/14/22 18:33	
o-Xylene	ug/kg	<15.0	50.0	04/14/22 18:33	
p-Isopropyltoluene	ug/kg	<15.2	50.0	04/14/22 18:33	
sec-Butylbenzene	ug/kg	<12.2	50.0	04/14/22 18:33	
Styrene	ug/kg	<12.8	50.0	04/14/22 18:33	
tert-Butylbenzene	ug/kg	<15.7	50.0	04/14/22 18:33	
Tetrachloroethene	ug/kg	<19.4	50.0	04/14/22 18:33	
Toluene	ug/kg	<12.6	50.0	04/14/22 18:33	
trans-1,2-Dichloroethene	ug/kg	<10.8	50.0	04/14/22 18:33	
trans-1,3-Dichloropropene	ug/kg	<143	250	04/14/22 18:33	
Trichloroethene	ug/kg	<18.7	50.0	04/14/22 18:33	
Trichlorofluoromethane	ug/kg	<14.5	50.0	04/14/22 18:33	
Vinyl chloride	ug/kg	<10.1	50.0	04/14/22 18:33	
1,2-Dichlorobenzene-d4 (S)	%	103	82-158	04/14/22 18:33	
4-Bromofluorobenzene (S)	%	102	66-153	04/14/22 18:33	
Toluene-d8 (S)	%	101	67-159	04/14/22 18:33	

LABORATORY CONTROL SAMPLE: 2379199

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2460	98	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2710	109	65-129	
1,1,2-Trichloroethane	ug/kg	2500	2650	106	70-130	
1,1-Dichloroethane	ug/kg	2500	2460	99	70-130	
1,1-Dichloroethene	ug/kg	2500	2350	94	67-120	
1,2,4-Trichlorobenzene	ug/kg	2500	2470	99	64-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2500	100	57-119	
1,2-Dibromoethane (EDB)	ug/kg	2500	2520	101	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2540	102	70-130	
1,2-Dichloroethane	ug/kg	2500	2600	104	70-130	
1,2-Dichloropropane	ug/kg	2500	2440	97	72-118	
1,3-Dichlorobenzene	ug/kg	2500	2520	101	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2510	100	70-130	
Benzene	ug/kg	2500	2430	97	70-130	
Bromodichloromethane	ug/kg	2500	2520	101	70-130	
Bromoform	ug/kg	2500	2180	87	66-130	

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

LABORATORY CONTROL SAMPLE: 2379199

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/kg	2500	2170	87	13-153	
Carbon tetrachloride	ug/kg	2500	2490	99	73-134	
Chlorobenzene	ug/kg	2500	2570	103	70-130	
Chloroethane	ug/kg	2500	2250	90	19-170	
Chloroform	ug/kg	2500	2500	100	79-120	
Chloromethane	ug/kg	2500	2090	84	45-117	
cis-1,2-Dichloroethene	ug/kg	2500	2410	96	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2410	96	68-130	
Dibromochloromethane	ug/kg	2500	2600	104	70-130	
Dichlorodifluoromethane	ug/kg	2500	1270	51	15-135	
Ethylbenzene	ug/kg	2500	2550	102	78-120	
Isopropylbenzene (Cumene)	ug/kg	2500	2540	101	70-130	
m&p-Xylene	ug/kg	5000	5140	103	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2400	96	65-130	
Methylene Chloride	ug/kg	2500	2510	100	70-130	
o-Xylene	ug/kg	2500	2600	104	70-130	
Styrene	ug/kg	2500	2710	108	70-130	
Tetrachloroethene	ug/kg	2500	2460	98	70-130	
Toluene	ug/kg	2500	2480	99	76-120	
trans-1,2-Dichloroethene	ug/kg	2500	2530	101	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2460	98	70-130	
Trichloroethene	ug/kg	2500	2510	100	70-130	
Trichlorofluoromethane	ug/kg	2500	2060	82	49-153	
Vinyl chloride	ug/kg	2500	2210	88	58-121	
1,2-Dichlorobenzene-d4 (S)	%			105	82-158	
4-Bromofluorobenzene (S)	%			109	66-153	
Toluene-d8 (S)	%			104	67-159	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2379200 2379201

Parameter	Units	40243320001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/kg	76.1	1300	1300	1140	1210	82	87	70-130	6	20	
1,1,2,2-Tetrachloroethane	ug/kg	<23.6	1300	1300	1340	1350	103	104	65-129	1	20	
1,1,2-Trichloroethane	ug/kg	<23.7	1300	1300	1240	1300	95	100	70-130	5	20	
1,1-Dichloroethane	ug/kg	48.1J	1300	1300	1190	1220	88	90	70-130	3	20	
1,1-Dichloroethene	ug/kg	<21.7	1300	1300	996	1090	76	83	64-120	9	20	
1,2,4-Trichlorobenzene	ug/kg	<53.7	1300	1300	1340	1290	101	98	64-130	4	20	
1,2-Dibromo-3-chloropropane	ug/kg	<50.6	1300	1300	1230	1200	94	92	57-130	3	21	
1,2-Dibromoethane (EDB)	ug/kg	<17.9	1300	1300	1140	1180	87	91	70-130	4	20	
1,2-Dichlorobenzene	ug/kg	<20.2	1300	1300	1300	1320	99	101	70-130	2	20	
1,2-Dichloroethane	ug/kg	<15.0	1300	1300	1220	1300	94	100	70-130	6	20	
1,2-Dichloropropane	ug/kg	<15.5	1300	1300	1150	1210	88	93	72-122	5	20	
1,3-Dichlorobenzene	ug/kg	<17.9	1300	1300	1240	1260	95	97	70-130	2	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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2379200 2379201

Parameter	Units	40243320001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/kg	<17.9	1300	1300	1260	1250	96	96	70-130	0	20	
Benzene	ug/kg	<15.5	1300	1300	1150	1210	87	91	70-130	5	20	
Bromodichloromethane	ug/kg	<15.5	1300	1300	1170	1200	90	92	70-130	3	20	
Bromoform	ug/kg	<287	1300	1300	1160	1180	89	91	66-130	2	20	
Bromomethane	ug/kg	<91.5	1300	1300	1010	1040	77	80	13-153	3	20	
Carbon tetrachloride	ug/kg	<14.4	1300	1300	1040	1110	80	85	67-134	6	20	
Chlorobenzene	ug/kg	<7.8	1300	1300	1250	1280	96	98	70-130	2	20	
Chloroethane	ug/kg	<27.5	1300	1300	1040	1050	80	81	11-195	1	20	
Chloroform	ug/kg	<46.7	1300	1300	1160	1210	89	93	79-120	4	20	
Chloromethane	ug/kg	<24.8	1300	1300	764	831	59	64	30-136	8	20	
cis-1,2-Dichloroethene	ug/kg	<14.0	1300	1300	1150	1210	88	92	70-130	5	20	
cis-1,3-Dichloropropene	ug/kg	<43.1	1300	1300	1040	1120	79	86	68-130	8	20	
Dibromochloromethane	ug/kg	<223	1300	1300	1190	1180	91	90	70-130	1	20	
Dichlorodifluoromethane	ug/kg	<28.0	1300	1300	358	384	27	29	10-158	7	25	
Ethylbenzene	ug/kg	20.3J	1300	1300	1150	1200	87	90	78-120	4	20	
Isopropylbenzene (Cumene)	ug/kg	<17.6	1300	1300	1110	1160	85	89	70-130	4	20	
m&p-Xylene	ug/kg	44.6J	2600	2600	2300	2420	87	91	70-130	5	20	
Methyl-tert-butyl ether	ug/kg	<19.2	1300	1300	1130	1160	87	89	65-130	3	20	
Methylene Chloride	ug/kg	<18.1	1300	1300	1190	1250	91	96	70-130	5	20	
o-Xylene	ug/kg	27.6J	1300	1300	1170	1240	88	93	70-130	6	20	
Styrene	ug/kg	<16.7	1300	1300	1190	1230	92	94	70-130	3	20	
Tetrachloroethene	ug/kg	<25.3	1300	1300	1130	1160	86	89	70-130	3	20	
Toluene	ug/kg	44.1J	1300	1300	1230	1240	91	92	76-120	1	20	
trans-1,2-Dichloroethene	ug/kg	<14.1	1300	1300	1150	1210	88	92	70-130	5	20	
trans-1,3-Dichloropropene	ug/kg	<187	1300	1300	1090	1110	84	85	70-130	1	20	
Trichloroethene	ug/kg	<24.4	1300	1300	1120	1170	86	90	70-130	4	20	
Trichlorofluoromethane	ug/kg	<18.9	1300	1300	875	930	67	71	42-159	6	21	
Vinyl chloride	ug/kg	<13.2	1300	1300	857	889	66	68	43-137	4	20	
1,2-Dichlorobenzene-d4 (S)	%						106	106	82-158			
4-Bromofluorobenzene (S)	%						108	109	66-153			
Toluene-d8 (S)	%						107	105	67-159			

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

QC Batch: 413032
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40243288001, 40243288002, 40243288003

METHOD BLANK: 2378115 Matrix: Solid
Associated Lab Samples: 40243288001, 40243288002, 40243288003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<15.2	50.0	04/13/22 14:41	
PCB-1221 (Aroclor 1221)	ug/kg	<15.2	50.0	04/13/22 14:41	
PCB-1232 (Aroclor 1232)	ug/kg	<15.2	50.0	04/13/22 14:41	
PCB-1242 (Aroclor 1242)	ug/kg	<15.2	50.0	04/13/22 14:41	
PCB-1248 (Aroclor 1248)	ug/kg	<15.2	50.0	04/13/22 14:41	
PCB-1254 (Aroclor 1254)	ug/kg	<15.2	50.0	04/13/22 14:41	
PCB-1260 (Aroclor 1260)	ug/kg	<15.2	50.0	04/13/22 14:41	
Decachlorobiphenyl (S)	%	77	38-95	04/13/22 14:41	
Tetrachloro-m-xylene (S)	%	90	50-99	04/13/22 14:41	

LABORATORY CONTROL SAMPLE: 2378116

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	446	89	71-104	
Decachlorobiphenyl (S)	%			86	38-95	
Tetrachloro-m-xylene (S)	%			88	50-99	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2378117 2378118

Parameter	Units	40243292003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<0.019 mg/kg			<19.0	<18.9					20	
PCB-1221 (Aroclor 1221)	ug/kg	<0.019 mg/kg			<19.0	<18.9					20	
PCB-1232 (Aroclor 1232)	ug/kg	<0.019 mg/kg			<19.0	<18.9					20	
PCB-1242 (Aroclor 1242)	ug/kg	<0.019 mg/kg			<19.0	<18.9					20	
PCB-1248 (Aroclor 1248)	ug/kg	<0.019 mg/kg			<19.0	<18.9					20	
PCB-1254 (Aroclor 1254)	ug/kg	<0.019 mg/kg			<19.0	<18.9					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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2378117 2378118

Parameter	Units	40243292003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1260 (Aroclor 1260)	ug/kg	<0.019 mg/kg	623	621	490	445	79	72	42-109	10	20	
Decachlorobiphenyl (S)	%						79	72	38-95			
Tetrachloro-m-xylene (S)	%						81	70	50-99			

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

QC Batch: 413174
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A
Analysis Description: 8082 GCS PCB
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40243288004

METHOD BLANK: 2378890 Matrix: Solid
Associated Lab Samples: 40243288004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<15.2	50.0	04/15/22 19:15	
PCB-1221 (Aroclor 1221)	ug/kg	<15.2	50.0	04/15/22 19:15	
PCB-1232 (Aroclor 1232)	ug/kg	<15.2	50.0	04/15/22 19:15	
PCB-1242 (Aroclor 1242)	ug/kg	<15.2	50.0	04/15/22 19:15	
PCB-1248 (Aroclor 1248)	ug/kg	<15.2	50.0	04/15/22 19:15	
PCB-1254 (Aroclor 1254)	ug/kg	<15.2	50.0	04/15/22 19:15	
PCB-1260 (Aroclor 1260)	ug/kg	<15.2	50.0	04/15/22 19:15	
Decachlorobiphenyl (S)	%	92	38-95	04/15/22 19:15	
Tetrachloro-m-xylene (S)	%	94	50-99	04/15/22 19:15	

LABORATORY CONTROL SAMPLE: 2378891

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	480	96	71-104	
Decachlorobiphenyl (S)	%			91	38-95	
Tetrachloro-m-xylene (S)	%			94	50-99	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2378892 2378893

Parameter	Units	40243205001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	ND			<18.0	<18.0					20	
PCB-1221 (Aroclor 1221)	ug/kg	ND			<18.0	<18.0					20	
PCB-1232 (Aroclor 1232)	ug/kg	ND			<18.0	<18.0					20	
PCB-1242 (Aroclor 1242)	ug/kg	ND			<18.0	<18.0					20	
PCB-1248 (Aroclor 1248)	ug/kg	ND			<18.0	<18.0					20	
PCB-1254 (Aroclor 1254)	ug/kg	ND			<18.0	<18.0					20	
PCB-1260 (Aroclor 1260)	ug/kg	ND	592	592	540	529	91	89	42-109	2	20	
Decachlorobiphenyl (S)	%						89	85	38-95			
Tetrachloro-m-xylene (S)	%						92	88	50-99			

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

QC Batch: 413133
QC Batch Method: EPA 3546
Analysis Method: EPA 8270E
Analysis Description: 8270E Solid MSSV Microwave
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40243288001, 40243288002, 40243288003, 40243288004

METHOD BLANK: 2378684 Matrix: Solid
Associated Lab Samples: 40243288001, 40243288002, 40243288003, 40243288004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	<18.9	62.9	04/15/22 00:07	
1,2-Dichlorobenzene	ug/kg	<52.5	175	04/15/22 00:07	
1,3-Dichlorobenzene	ug/kg	<23.1	77.0	04/15/22 00:07	
1,4-Dichlorobenzene	ug/kg	<23.2	77.5	04/15/22 00:07	
2,2'-Oxybis(1-chloropropane)	ug/kg	<43.0	143	04/15/22 00:07	
2,4,5-Trichlorophenol	ug/kg	<29.5	98.2	04/15/22 00:07	
2,4,6-Trichlorophenol	ug/kg	<25.4	84.8	04/15/22 00:07	
2,4-Dichlorophenol	ug/kg	<44.6	149	04/15/22 00:07	
2,4-Dimethylphenol	ug/kg	<33.0	110	04/15/22 00:07	
2,4-Dinitrophenol	ug/kg	<50.8	169	04/15/22 00:07	
2,4-Dinitrotoluene	ug/kg	<23.9	79.5	04/15/22 00:07	
2,6-Dinitrotoluene	ug/kg	<31.7	106	04/15/22 00:07	
2-Chloronaphthalene	ug/kg	<21.4	71.4	04/15/22 00:07	
2-Chlorophenol	ug/kg	<41.6	139	04/15/22 00:07	
2-Methylnaphthalene	ug/kg	<43.3	144	04/15/22 00:07	
2-Methylphenol(o-Cresol)	ug/kg	<30.3	101	04/15/22 00:07	
2-Nitroaniline	ug/kg	<47.6	158	04/15/22 00:07	
2-Nitrophenol	ug/kg	<52.7	176	04/15/22 00:07	
3&4-Methylphenol(m&p Cresol)	ug/kg	<30.6	102	04/15/22 00:07	
3,3'-Dichlorobenzidine	ug/kg	<45.3	151	04/15/22 00:07	
3-Nitroaniline	ug/kg	<28.4	94.6	04/15/22 00:07	
4,6-Dinitro-2-methylphenol	ug/kg	<51.4	171	04/15/22 00:07	
4-Bromophenylphenyl ether	ug/kg	<34.9	116	04/15/22 00:07	
4-Chloro-3-methylphenol	ug/kg	<51.9	173	04/15/22 00:07	
4-Chloroaniline	ug/kg	<27.4	91.4	04/15/22 00:07	1q
4-Chlorophenylphenyl ether	ug/kg	<31.1	104	04/15/22 00:07	
4-Nitroaniline	ug/kg	<69.3	231	04/15/22 00:07	
4-Nitrophenol	ug/kg	<42.0	140	04/15/22 00:07	
Acenaphthene	ug/kg	<59.2	197	04/15/22 00:07	
Acenaphthylene	ug/kg	<59.5	198	04/15/22 00:07	
Anthracene	ug/kg	<26.7	88.9	04/15/22 00:07	
Benzo(a)anthracene	ug/kg	<25.8	86.1	04/15/22 00:07	
Benzo(a)pyrene	ug/kg	<25.1	83.7	04/15/22 00:07	
Benzo(b)fluoranthene	ug/kg	<28.7	95.6	04/15/22 00:07	
Benzo(g,h,i)perylene	ug/kg	<43.7	146	04/15/22 00:07	
Benzo(k)fluoranthene	ug/kg	<40.0	133	04/15/22 00:07	
bis(2-Chloroethoxy)methane	ug/kg	<44.9	150	04/15/22 00:07	
bis(2-Chloroethyl) ether	ug/kg	<52.1	174	04/15/22 00:07	
bis(2-Ethylhexyl)phthalate	ug/kg	<27.7	92.5	04/15/22 00:07	
Butylbenzylphthalate	ug/kg	<26.8	89.2	04/15/22 00:07	

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

METHOD BLANK: 2378684 Matrix: Solid
Associated Lab Samples: 40243288001, 40243288002, 40243288003, 40243288004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Carbazole	ug/kg	<26.1	87.1	04/15/22 00:07	
Chrysene	ug/kg	<24.9	83.2	04/15/22 00:07	
Di-n-butylphthalate	ug/kg	<24.9	83.1	04/15/22 00:07	
Di-n-octylphthalate	ug/kg	<37.5	125	04/15/22 00:07	
Dibenz(a,h)anthracene	ug/kg	<45.3	151	04/15/22 00:07	
Dibenzofuran	ug/kg	<20.2	67.3	04/15/22 00:07	
Diethylphthalate	ug/kg	<27.7	92.2	04/15/22 00:07	
Dimethylphthalate	ug/kg	<21.7	72.4	04/15/22 00:07	
Fluoranthene	ug/kg	<23.6	78.7	04/15/22 00:07	
Fluorene	ug/kg	<19.5	65.0	04/15/22 00:07	
Hexachloro-1,3-butadiene	ug/kg	<42.5	142	04/15/22 00:07	
Hexachlorobenzene	ug/kg	<28.1	93.5	04/15/22 00:07	
Hexachlorocyclopentadiene	ug/kg	<39.5	132	04/15/22 00:07	
Hexachloroethane	ug/kg	<26.7	89.0	04/15/22 00:07	
Indeno(1,2,3-cd)pyrene	ug/kg	<36.1	120	04/15/22 00:07	
Isophorone	ug/kg	<25.7	85.5	04/15/22 00:07	
N-Nitroso-di-n-propylamine	ug/kg	<26.5	88.2	04/15/22 00:07	
N-Nitrosodiphenylamine	ug/kg	<226	755	04/15/22 00:07	
Naphthalene	ug/kg	<58.3	194	04/15/22 00:07	
Nitrobenzene	ug/kg	<33.8	113	04/15/22 00:07	
Pentachlorophenol	ug/kg	<36.7	122	04/15/22 00:07	
Phenanthrene	ug/kg	<21.4	71.4	04/15/22 00:07	
Phenol	ug/kg	<39.6	132	04/15/22 00:07	
Pyrene	ug/kg	<37.0	123	04/15/22 00:07	
2,4,6-Tribromophenol (S)	%	98	10-144	04/15/22 00:07	
2-Fluorobiphenyl (S)	%	97	12-118	04/15/22 00:07	
2-Fluorophenol (S)	%	94	10-130	04/15/22 00:07	
Nitrobenzene-d5 (S)	%	100	10-125	04/15/22 00:07	
Phenol-d6 (S)	%	91	10-125	04/15/22 00:07	
Terphenyl-d14 (S)	%	99	10-124	04/15/22 00:07	

LABORATORY CONTROL SAMPLE: 2378685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1670	1480	89	70-130	
1,2-Dichlorobenzene	ug/kg	1670	1430	86	66-130	
1,3-Dichlorobenzene	ug/kg	1670	1370	82	66-130	
1,4-Dichlorobenzene	ug/kg	1670	1400	84	64-130	
2,2'-Oxybis(1-chloropropane)	ug/kg	1670	1490	89	65-130	
2,4,5-Trichlorophenol	ug/kg	1670	1720	103	70-125	
2,4,6-Trichlorophenol	ug/kg	1670	1570	94	70-124	
2,4-Dichlorophenol	ug/kg	1670	1560	94	70-121	
2,4-Dimethylphenol	ug/kg	1670	1620	97	70-130	
2,4-Dinitrophenol	ug/kg	1670	1330	80	26-103	

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

LABORATORY CONTROL SAMPLE: 2378685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrotoluene	ug/kg	1670	1730	104	70-130	
2,6-Dinitrotoluene	ug/kg	1670	1650	99	70-130	
2-Chloronaphthalene	ug/kg	1670	1590	96	70-130	
2-Chlorophenol	ug/kg	1670	1510	91	67-130	
2-Methylnaphthalene	ug/kg	1670	1580	95	70-130	
2-Methylphenol(o-Cresol)	ug/kg	1670	1640	98	69-130	
2-Nitroaniline	ug/kg	1670	1840	110	70-124	
2-Nitrophenol	ug/kg	1670	1560	94	70-130	
3&4-Methylphenol(m&p Cresol)	ug/kg	1670	1590	95	70-130	
3,3'-Dichlorobenzidine	ug/kg	1670	1330	80	48-112	
3-Nitroaniline	ug/kg	1670	1520	91	57-121	
4,6-Dinitro-2-methylphenol	ug/kg	1670	1370	82	59-115	
4-Bromophenylphenyl ether	ug/kg	1670	1660	99	70-130	
4-Chloro-3-methylphenol	ug/kg	1670	1690	101	70-130	
4-Chloroaniline	ug/kg	1670	1110	67	45-130	1q
4-Chlorophenylphenyl ether	ug/kg	1670	1710	102	70-130	
4-Nitroaniline	ug/kg	1670	1850	111	62-127	
4-Nitrophenol	ug/kg	1670	1780	107	50-126	
Acenaphthene	ug/kg	1670	1690	101	70-130	
Acenaphthylene	ug/kg	1670	1690	101	70-130	
Anthracene	ug/kg	1670	1670	101	70-130	
Benzo(a)anthracene	ug/kg	1670	1620	97	70-130	
Benzo(a)pyrene	ug/kg	1670	1720	103	70-130	
Benzo(b)fluoranthene	ug/kg	1670	1670	100	70-130	
Benzo(g,h,i)perylene	ug/kg	1670	1640	98	65-130	
Benzo(k)fluoranthene	ug/kg	1670	1670	100	70-130	
bis(2-Chloroethoxy)methane	ug/kg	1670	1560	94	70-130	
bis(2-Chloroethyl) ether	ug/kg	1670	1420	85	68-130	
bis(2-Ethylhexyl)phthalate	ug/kg	1670	1670	100	70-130	
Butylbenzylphthalate	ug/kg	1670	1830	110	70-130	
Carbazole	ug/kg	1670	1820	109	70-130	
Chrysene	ug/kg	1670	1640	98	70-130	
Di-n-butylphthalate	ug/kg	1670	1790	107	70-130	
Di-n-octylphthalate	ug/kg	1670	1770	106	67-134	
Dibenz(a,h)anthracene	ug/kg	1670	1570	94	68-130	
Dibenzofuran	ug/kg	1670	1630	98	70-130	
Diethylphthalate	ug/kg	1670	1740	105	70-130	
Dimethylphthalate	ug/kg	1670	1670	100	70-130	
Fluoranthene	ug/kg	1670	1760	106	70-130	
Fluorene	ug/kg	1670	1720	103	70-130	
Hexachloro-1,3-butadiene	ug/kg	1670	1430	86	67-130	
Hexachlorobenzene	ug/kg	1670	1560	94	70-130	
Hexachlorocyclopentadiene	ug/kg	1670	1320	79	54-114	
Hexachloroethane	ug/kg	1670	1510	91	64-130	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1530	92	63-130	
Isophorone	ug/kg	1670	1620	97	70-130	
N-Nitroso-di-n-propylamine	ug/kg	1670	1640	98	70-130	

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

LABORATORY CONTROL SAMPLE: 2378685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
N-Nitrosodiphenylamine	ug/kg	1670	1690	101	70-130	
Naphthalene	ug/kg	1670	1500	90	70-130	
Nitrobenzene	ug/kg	1670	1550	93	70-130	
Pentachlorophenol	ug/kg	1670	1520	91	47-108	
Phenanthrene	ug/kg	1670	1680	101	70-130	
Phenol	ug/kg	1670	1540	93	67-130	
Pyrene	ug/kg	1670	1660	100	70-130	
2,4,6-Tribromophenol (S)	%			99	10-144	
2-Fluorobiphenyl (S)	%			91	12-118	
2-Fluorophenol (S)	%			86	10-130	
Nitrobenzene-d5 (S)	%			90	10-125	
Phenol-d6 (S)	%			87	10-125	
Terphenyl-d14 (S)	%			90	10-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2378686 2378687

Parameter	Units	40243334001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trichlorobenzene	ug/kg	<0.066 mg/kg	1950	1950	1500	1600	77	82	45-130	6	28	
1,2-Dichlorobenzene	ug/kg	<0.18 mg/kg	1950	1950	1570	1630	81	84	45-130	4	29	
1,3-Dichlorobenzene	ug/kg	<0.081 mg/kg	1950	1950	1460	1580	75	81	42-130	8	30	
1,4-Dichlorobenzene	ug/kg	<0.082 mg/kg	1950	1950	1540	1630	79	83	42-130	6	32	
2,2'-Oxybis(1-chloropropane)	ug/kg	<0.15 mg/kg	1950	1950	1610	1680	82	86	44-130	5	26	
2,4,5-Trichlorophenol	ug/kg	<0.10 mg/kg	1950	1950	1640	1750	84	90	11-125	6	30	
2,4,6-Trichlorophenol	ug/kg	<0.089 mg/kg	1950	1950	1530	1590	79	82	16-124	4	31	
2,4-Dichlorophenol	ug/kg	<0.16 mg/kg	1950	1950	1390	1560	71	80	19-121	11	29	
2,4-Dimethylphenol	ug/kg	<0.12 mg/kg	1950	1950	1590	1480	82	76	29-130	7	32	
2,4-Dinitrophenol	ug/kg	<0.18 mg/kg	1950	1950	859J	979J	44	50	10-103		50	
2,4-Dinitrotoluene	ug/kg	<0.084 mg/kg	1950	1950	1460	1590	75	81	38-130	8	27	
2,6-Dinitrotoluene	ug/kg	<0.11 mg/kg	1950	1950	1480	1610	76	82	41-130	8	28	
2-Chloronaphthalene	ug/kg	<0.075 mg/kg	1950	1950	1620	1620	83	83	44-130	0	24	
2-Chlorophenol	ug/kg	<0.15 mg/kg	1950	1950	1640	1610	84	83	33-130	2	30	
2-Methylnaphthalene	ug/kg	<0.15 mg/kg	1950	1950	1760	1820	90	93	46-130	4	23	
2-Methylphenol(o-Cresol)	ug/kg	<0.11 mg/kg	1950	1950	1690	1580	87	81	30-130	7	30	

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2378686 2378687

Parameter	Units	40243334001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Nitroaniline	ug/kg	<0.17 mg/kg	1950	1950	1940	1830	100	94	27-124	6	25	
2-Nitrophenol	ug/kg	<0.18 mg/kg	1950	1950	1650	1490	85	76	10-130	10	27	
3&4-Methylphenol(m&p Cresol)	ug/kg	<0.11 mg/kg	1950	1950	1590	1590	81	82	28-130	0	33	
3,3'-Dichlorobenzidine	ug/kg	<0.16 mg/kg	1950	1950	1520	1570	78	80	10-112	3	43	
3-Nitroaniline	ug/kg	<0.10 mg/kg	1950	1950	1440	1470	74	76	10-121	2	33	
4,6-Dinitro-2-methylphenol	ug/kg	<0.18 mg/kg	1950	1950	1310	1500	67	77	10-115	13	50	
4-Bromophenylphenyl ether	ug/kg	<0.12 mg/kg	1950	1950	1660	1580	85	81	40-130	5	25	
4-Chloro-3-methylphenol	ug/kg	<0.18 mg/kg	1950	1950	1920	1710	98	88	30-130	11	29	
4-Chloroaniline	ug/kg	<0.096 mg/kg	1950	1950	1140	1250	58	64	16-130	9	33	1q
4-Chlorophenylphenyl ether	ug/kg	<0.11 mg/kg	1950	1950	1840	1750	94	90	46-130	5	24	
4-Nitroaniline	ug/kg	<0.24 mg/kg	1950	1950	1730	1820	89	93	10-127	5	40	
4-Nitrophenol	ug/kg	<0.15 mg/kg	1950	1950	1440	1290	74	66	10-128	11	50	
Acenaphthene	ug/kg	<0.21 mg/kg	1950	1950	1610	1610	83	83	47-130	0	21	
Acenaphthylene	ug/kg	<0.21 mg/kg	1950	1950	1830	1770	94	91	49-130	3	22	
Anthracene	ug/kg	<0.094 mg/kg	1950	1950	1730	1770	89	91	46-130	2	27	
Benzo(a)anthracene	ug/kg	<0.091 mg/kg	1950	1950	1700	1810	85	90	45-130	6	24	
Benzo(a)pyrene	ug/kg	<0.088 mg/kg	1950	1950	1690	1690	85	84	48-130	0	27	
Benzo(b)fluoranthene	ug/kg	<0.10 mg/kg	1950	1950	1660	1660	83	83	41-130	0	31	
Benzo(g,h,i)perylene	ug/kg	<0.15 mg/kg	1950	1950	1700	1690	87	87	37-130	0	31	
Benzo(k)fluoranthene	ug/kg	<0.14 mg/kg	1950	1950	1590	1730	81	89	46-130	9	27	
bis(2-Chloroethoxy)methane	ug/kg	<0.16 mg/kg	1950	1950	1550	1570	79	80	38-130	1	26	
bis(2-Chloroethyl) ether	ug/kg	<0.18 mg/kg	1950	1950	1610	1730	83	89	42-130	7	29	
bis(2-Ethylhexyl)phthalate	ug/kg	<0.097 mg/kg	1950	1950	2480	2480	127	127	39-130	0	27	
Butylbenzylphthalate	ug/kg	<0.094 mg/kg	1950	1950	1870	2080	96	107	39-130	11	27	
Carbazole	ug/kg	<0.092 mg/kg	1950	1950	1810	1810	93	93	44-130	0	24	
Chrysene	ug/kg	<0.088 mg/kg	1950	1950	1640	1780	84	91	44-130	8	25	
Di-n-butylphthalate	ug/kg	<0.088 mg/kg	1950	1950	1840	1880	94	96	45-130	2	26	

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2378686 2378687

Parameter	Units	40243334001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Di-n-octylphthalate	ug/kg	<0.13 mg/kg	1950	1950	2580	2530	133	130	40-134	2	27	
Dibenz(a,h)anthracene	ug/kg	<0.16 mg/kg	1950	1950	1640	1570	84	80	41-130	5	33	
Dibenzofuran	ug/kg	<0.071 mg/kg	1950	1950	1710	1730	88	89	47-130	1	23	
Diethylphthalate	ug/kg	<0.097 mg/kg	1950	1950	1950	1830	100	94	46-130	7	24	
Dimethylphthalate	ug/kg	<0.076 mg/kg	1950	1950	1770	1710	91	88	47-130	3	24	
Fluoranthene	ug/kg	<0.083 mg/kg	1950	1950	1800	1810	90	91	50-130	1	27	
Fluorene	ug/kg	<0.068 mg/kg	1950	1950	1770	1730	91	89	48-130	2	25	
Hexachloro-1,3-butadiene	ug/kg	<0.15 mg/kg	1950	1950	1550	1690	79	87	42-130	9	27	
Hexachlorobenzene	ug/kg	<0.099 mg/kg	1950	1950	1480	1530	76	78	51-130	4	24	
Hexachlorocyclopentadiene	ug/kg	<0.14 mg/kg	1950	1950	744J	790	38	41	10-114		50	
Hexachloroethane	ug/kg	<0.094 mg/kg	1950	1950	1300	1570	67	81	33-130	19	35	
Indeno(1,2,3-cd)pyrene	ug/kg	<0.13 mg/kg	1950	1950	1770	1710	91	88	34-130	3	38	
Isophorone	ug/kg	<0.090 mg/kg	1950	1950	1760	1820	90	93	45-130	3	28	
N-Nitroso-di-n-propylamine	ug/kg	<0.093 mg/kg	1950	1950	1810	1710	93	88	47-130	6	27	
N-Nitrosodiphenylamine	ug/kg	<0.79 mg/kg	1950	1950	1690J	1700J	87	87	42-130		25	
Naphthalene	ug/kg	<0.20 mg/kg	1950	1950	1630	1620	84	83	48-130	0	24	
Nitrobenzene	ug/kg	<0.12 mg/kg	1950	1950	1710	1820	88	93	42-130	6	25	
Pentachlorophenol	ug/kg	<0.13 mg/kg	1950	1950	1110	1350	57	69	10-108	19	50	
Phenanthrene	ug/kg	<0.075 mg/kg	1950	1950	1660	1660	82	82	50-130	0	27	
Phenol	ug/kg	<0.14 mg/kg	1950	1950	1660	1610	85	82	37-130	3	30	D3
Pyrene	ug/kg	<0.13 mg/kg	1950	1950	1690	1740	84	86	43-130	3	29	
2,4,6-Tribromophenol (S)	%						87	91	10-144			
2-Fluorobiphenyl (S)	%						76	78	12-118			
2-Fluorophenol (S)	%						74	81	10-130			
Nitrobenzene-d5 (S)	%						80	89	10-125			
Phenol-d6 (S)	%						72	77	10-125			
Terphenyl-d14 (S)	%						78	79	10-124			

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

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

QUALITY CONTROL DATA

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

QC Batch: 413061
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40243288001, 40243288002, 40243288003, 40243288004

SAMPLE DUPLICATE: 2378360

Parameter	Units	40243253001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.7	4.5	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

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

QUALIFIERS

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

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

1q	This analyte's recovery was below secondary source verification limits. The results may be biased low.
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.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 7011 128TH BLG 522
Pace Project No.: 40243288

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40243288001	**1**	EPA 3541	413032	EPA 8082A	413054
40243288002	**2**	EPA 3541	413032	EPA 8082A	413054
40243288003	**3**	EPA 3541	413032	EPA 8082A	413054
40243288004	**4**	EPA 3541	413174	EPA 8082A	413281
40243288001	**1**	EPA 3050B	412994	EPA 6010D	413060
40243288002	**2**	EPA 3050B	412994	EPA 6010D	413060
40243288003	**3**	EPA 3050B	412994	EPA 6010D	413060
40243288004	**4**	EPA 3050B	412994	EPA 6010D	413060
40243288001	**1**	EPA 7471	413398	EPA 7471	413451
40243288002	**2**	EPA 7471	413398	EPA 7471	413451
40243288003	**3**	EPA 7471	413398	EPA 7471	413451
40243288004	**4**	EPA 7471	413398	EPA 7471	413451
40243288001	**1**	EPA 3546	413133	EPA 8270E	413167
40243288002	**2**	EPA 3546	413133	EPA 8270E	413167
40243288003	**3**	EPA 3546	413133	EPA 8270E	413167
40243288004	**4**	EPA 3546	413133	EPA 8270E	413167
40243288001	**1**	EPA 5035/5030B	413206	EPA 8260	413219
40243288002	**2**	EPA 5035/5030B	413206	EPA 8260	413219
40243288003	**3**	EPA 5035/5030B	413206	EPA 8260	413219
40243288004	**4**	EPA 5035/5030B	413056	EPA 8260	413057
40243288001	**1**	ASTM D2974-87	413061		
40243288002	**2**	ASTM D2974-87	413061		
40243288003	**3**	ASTM D2974-87	413061		
40243288004	**4**	ASTM D2974-87	413061		

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

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

402743288

(Please Print Clearly)	
Company Name:	Moraine Environmental
Branch/Location:	Fredonia
Project Contact:	Tom Sweet
Phone:	262-692-3345
Project Number:	7011
Project Name:	128th Bldg 522
Project State:	WI
Sampled By (Print):	Joe Pospichal
Sampled By (Sign):	
PO #:	Regulatory Program:

*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

Quote #:	
Mail To Contact:	Tom Sweet
Mail To Company:	Moraine Environmental
Mail To Address:	766 Tower Dr Fredonia, WI 53021
Invoice To Contact:	SAME
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

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 DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PFAS	RCRA Metals	VOCs	SVOCs	PCBs	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	1	4/9/22	1030	S	N	A	X	X	X	X	X			
002	2	4/8/22	1010	S	N	A	X	X	X	X	X			
003	3	4/8/22	0945	S	N	F	X	X	X	X	X			
004	4	4/8/22	1100	S	N	A	X	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):

Email #1:	
Email #2:	
Telephone:	
Fax:	

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
CSLogistics	4/12/22 0825		4/14/22 0825

PACE Project No.: 402743288

Receipt Temp = 0.5 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Preservation Receipt Form

Client Name: Moraine Project # 402432988

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):

	Glass							Plastic					Vials						Jars				General							
Pace Lab #	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	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001																		1				2	1			1							2.5 / 5 / 10
002																		1				2	1			1							2.5 / 5 / 10
003																		1				2	1			1							2.5 / 5 / 10
004																		1				2	1			1							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					MH 4/12/22																												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
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	125mL poly unpres

Sample Condition Upon Receipt Form (SCUR)

Project #:

WO#: 40243288

40243288

Client Name: Morani

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

Tracking #:

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 - 9 **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 0 /Corr: 0.5

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

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

Person examining contents:
Date: 4/12/22 /Initials: mH

Labeled By Initials: TP

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☑No ☐N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: S	☑Yes ☐No ☐N/A	12. No time on samples mH 4/12/22
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑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 login

Page 2 of 2

Report of Analysis

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

Project Name: 7011 128TH BLG 522

Project Number: 40243288

Lot Number:**XD13016**

Date Completed:04/19/2022

04/19/2022 3:08 PM
Approved and released by:
Project Manager II: **Edward Barnett**

Case Narrative
Pace Analytical Services, LLC
Lot Number: XD13016

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. Where sampling is conducted by the client, results relate to the accuracy of the information provided, and as the samples are received.

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.

Pace is a TNI accredited laboratory; however, the following analyses are currently not listed on our TNI scope of accreditation: Drinking Water: VOC (excluding BTEX, MTBE, Naphthalene, & 1,2-dichloroethane) EPA 524.2, E. coli and Total coliforms SM 9223 B-2004, Solid Chemical Material: TOC Walkley-Black, Biological Tissue: All, Non-Potable Water: SGT-HEM EPA 1664B, Silica EPA 200.7, Boron, Calcium, Silicon, Strontium EPA 200.8, Bicarbonate, Carbonate, and Hydroxide Alkalinity SM 2320 B-2011, SM 9221 C E-2006 & SM 9222D-2006, Strontium SW-846 6010D, VOC SM 6200 B-2011, Fecal Coliform Colilert-18.

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.

Sample Summary
Pace Analytical Services, LLC
Lot Number: XD13016
Project Name: 7011 128TH BLG 522
Project Number: 40243288

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	1	Solid	04/08/2022 1030	04/13/2022
002	2	Solid	04/08/2022 1010	04/13/2022
003	3	Solid	04/08/2022 0945	04/13/2022
004	4	Solid	04/08/2022 1100	04/13/2022

(4 samples)

Detection Summary

Pace Analytical Services, LLC

Lot Number: XD13016

Project Name: 7011 128TH BLG 522

Project Number: 40243288

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	1	Solid	6:2 FTS	PFAS by ID	1.4	J	ug/kg	5
001	1	Solid	PFHpS	PFAS by ID	0.79	J	ug/kg	5
001	1	Solid	PFHxS	PFAS by ID	4.4		ug/kg	5
001	1	Solid	PFHpA	PFAS by ID	0.47	J	ug/kg	5
001	1	Solid	PFHxA	PFAS by ID	0.95	J	ug/kg	5
001	1	Solid	PFOA	PFAS by ID	1.7		ug/kg	5
001	1	Solid	PFPeA	PFAS by ID	1.5		ug/kg	5
001	1	Solid	PFOS	PFAS by ID	11		ug/kg	5
002	2	Solid	PFBS	PFAS by ID	0.31	J	ug/kg	7
002	2	Solid	PFHpS	PFAS by ID	0.97	J	ug/kg	7
002	2	Solid	PFPeS	PFAS by ID	0.26	J	ug/kg	7
002	2	Solid	PFHxS	PFAS by ID	8.3		ug/kg	7
002	2	Solid	PFBA	PFAS by ID	0.97	J	ug/kg	7
002	2	Solid	PFHpA	PFAS by ID	1.1		ug/kg	7
002	2	Solid	PFHxA	PFAS by ID	3.2		ug/kg	7
002	2	Solid	PFNA	PFAS by ID	0.27	J	ug/kg	7
002	2	Solid	PFOA	PFAS by ID	2.7		ug/kg	7
002	2	Solid	PFPeA	PFAS by ID	2.3		ug/kg	7
002	2	Solid	PFOS	PFAS by ID	76		ug/kg	7
003	3	Solid	PFDS	PFAS by ID	0.61	J	ug/kg	9
003	3	Solid	PFHxS	PFAS by ID	1.9		ug/kg	9
003	3	Solid	PFDA	PFAS by ID	0.27	J	ug/kg	9
003	3	Solid	PFOA	PFAS by ID	0.37	J	ug/kg	9
003	3	Solid	PFOS	PFAS by ID	9.8		ug/kg	9
004	4	Solid	PFHpS	PFAS by ID	0.21	J	ug/kg	11
004	4	Solid	PFHxS	PFAS by ID	3.3		ug/kg	11
004	4	Solid	PFDA	PFAS by ID	0.56	J	ug/kg	11
004	4	Solid	PFHpA	PFAS by ID	0.57	J	ug/kg	11
004	4	Solid	PFHxA	PFAS by ID	0.89	J	ug/kg	11
004	4	Solid	PFNA	PFAS by ID	0.83	J	ug/kg	11
004	4	Solid	PFOA	PFAS by ID	1.7		ug/kg	11
004	4	Solid	PFPeA	PFAS by ID	0.42	J	ug/kg	11
004	4	Solid	PFOS	PFAS by ID	37		ug/kg	11

(33 detections)

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC** Laboratory ID: **XD13016-001**

Description: **1** Matrix: **Solid**

Date Sampled: **04/08/2022 1030** Project Name: **7011 128TH BLG 522** % Solids: **79.5** **04/15/2022 0028**

Date Received: **04/13/2022** Project Number: **40243288**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/18/2022 1845	MMM		38262

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	MDL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		2.5	0.19	ug/kg	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		2.5	0.21	ug/kg	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		2.5	0.34	ug/kg	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	**27619-97-2**	**PFAS by ID SOP**	**1.4**	**J**	**2.5**	**0.38**	**ug/kg**	**1**
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		2.5	0.27	ug/kg	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		4.9	0.72	ug/kg	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		2.5	0.19	ug/kg	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		2.5	0.44	ug/kg	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		2.5	0.36	ug/kg	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		2.5	0.28	ug/kg	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		2.5	0.43	ug/kg	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		2.5	0.49	ug/kg	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		2.5	0.41	ug/kg	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		1.2	0.16	ug/kg	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		1.2	0.27	ug/kg	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	**375-92-8**	**PFAS by ID SOP**	**0.79**	**J**	**1.2**	**0.22**	**ug/kg**	**1**
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		1.2	0.27	ug/kg	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		1.2	0.22	ug/kg	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		1.2	0.23	ug/kg	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		1.2	0.32	ug/kg	1
Perfluorohexanesulfonic acid (PFHxS)	**355-46-4**	**PFAS by ID SOP**	**4.4**		**1.2**	**0.22**	**ug/kg**	**1**
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	ND		1.2	0.51	ug/kg	1
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		1.2	0.19	ug/kg	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		1.2	0.22	ug/kg	1
Perfluoro-n-heptanoic acid (PFHpA)	**375-85-9**	**PFAS by ID SOP**	**0.47**	**J**	**1.2**	**0.18**	**ug/kg**	**1**
Perfluoro-n-hexanoic acid (PFHxA)	**307-24-4**	**PFAS by ID SOP**	**0.95**	**J**	**1.2**	**0.23**	**ug/kg**	**1**
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		1.2	0.18	ug/kg	1
Perfluoro-n-octanoic acid (PFOA)	**335-67-1**	**PFAS by ID SOP**	**1.7**		**1.2**	**0.26**	**ug/kg**	**1**
Perfluoro-n-pentanoic acid (PFPeA)	**2706-90-3**	**PFAS by ID SOP**	**1.5**		**1.2**	**0.20**	**ug/kg**	**1**
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		1.2	0.23	ug/kg	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		1.2	0.21	ug/kg	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		1.2	0.23	ug/kg	1
Perfluorooctanesulfonic acid (PFOS)	**1763-23-1**	**PFAS by ID SOP**	**11**		**1.2**	**0.44**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		87	25-150
13C2_6:2FTS		124	25-150
13C2_8:2FTS		86	25-150
13C2_PFDoA		83	25-150
13C2_PFTeDA		87	25-150
13C3_PFBS		85	25-150
13C3_PFHxS		88	25-150
13C3-HFPO-DA		79	25-150
13C4_PFBA		84	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: **XD13016-001**

Description: **1** Matrix: **Solid**

Date Sampled: **04/08/2022 1030** Project Name: **7011 128TH BLG 522** % Solids: **79.5** **04/15/2022 0028**

Date Received: **04/13/2022** Project Number: **40243288**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		87	25-150
13C5_PFHxA		84	25-150
13C5_PFPeA		81	25-150
13C6_PFDA		84	25-150
13C7_PFUdA		88	25-150
13C8_PFOA		92	25-150
13C8_PFOS		89	25-150
13C8_PFOSA		83	10-150
13C9_PFNA		87	25-150
d-EtFOSA		93	10-150
d5-EtFOSAA		85	25-150
d9-EtFOSE		82	10-150
d-MeFOSA		91	10-150
d3-MeFOSAA		84	25-150
d7-MeFOSE		78	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

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC** Laboratory ID: **XD13016-002**

Description: **2** Matrix: **Solid**

Date Sampled: **04/08/2022 1010** Project Name: **7011 128TH BLG 522** % Solids: **78.9** **04/15/2022 0028**

Date Received: **04/13/2022** Project Number: **40243288**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/18/2022 1856	MMM		38262

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	MDL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		2.2	0.17	ug/kg	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		2.2	0.19	ug/kg	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		2.2	0.30	ug/kg	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		2.2	0.33	ug/kg	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		2.2	0.24	ug/kg	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		4.4	0.63	ug/kg	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		2.2	0.16	ug/kg	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		2.2	0.39	ug/kg	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		2.2	0.32	ug/kg	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		2.2	0.25	ug/kg	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		2.2	0.38	ug/kg	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		2.2	0.43	ug/kg	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		2.2	0.37	ug/kg	1
Perfluoro-1-butanesulfonic acid (PFBS)	**375-73-5**	**PFAS by ID SOP**	**0.31**	**J**	**1.1**	**0.14**	**ug/kg**	**1**
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		1.1	0.24	ug/kg	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	**375-92-8**	**PFAS by ID SOP**	**0.97**	**J**	**1.1**	**0.19**	**ug/kg**	**1**
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		1.1	0.24	ug/kg	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		1.1	0.19	ug/kg	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	**2706-91-4**	**PFAS by ID SOP**	**0.26**	**J**	**1.1**	**0.20**	**ug/kg**	**1**
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		1.1	0.28	ug/kg	1
Perfluorohexanesulfonic acid (PFHxS)	**355-46-4**	**PFAS by ID SOP**	**8.3**		**1.1**	**0.19**	**ug/kg**	**1**
Perfluoro-n-butanoic acid (PFBA)	**375-22-4**	**PFAS by ID SOP**	**0.97**	**J**	**1.1**	**0.45**	**ug/kg**	**1**
Perfluoro-n-decanoic acid (PFDA)	335-76-2	PFAS by ID SOP	ND		1.1	0.17	ug/kg	1
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		1.1	0.19	ug/kg	1
Perfluoro-n-heptanoic acid (PFHpA)	**375-85-9**	**PFAS by ID SOP**	**1.1**		**1.1**	**0.16**	**ug/kg**	**1**
Perfluoro-n-hexanoic acid (PFHxA)	**307-24-4**	**PFAS by ID SOP**	**3.2**		**1.1**	**0.20**	**ug/kg**	**1**
Perfluoro-n-nonanoic acid (PFNA)	**375-95-1**	**PFAS by ID SOP**	**0.27**	**J**	**1.1**	**0.16**	**ug/kg**	**1**
Perfluoro-n-octanoic acid (PFOA)	**335-67-1**	**PFAS by ID SOP**	**2.7**		**1.1**	**0.23**	**ug/kg**	**1**
Perfluoro-n-pentanoic acid (PFPeA)	**2706-90-3**	**PFAS by ID SOP**	**2.3**		**1.1**	**0.17**	**ug/kg**	**1**
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		1.1	0.21	ug/kg	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		1.1	0.19	ug/kg	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		1.1	0.20	ug/kg	1
Perfluorooctanesulfonic acid (PFOS)	**1763-23-1**	**PFAS by ID SOP**	**76**		**1.1**	**0.39**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		83	25-150
13C2_6:2FTS		111	25-150
13C2_8:2FTS		85	25-150
13C2_PFDoA		84	25-150
13C2_PFTeDA		86	25-150
13C3_PFBS		84	25-150
13C3_PFHxS		81	25-150
13C3-HFPO-DA		80	25-150
13C4_PFBA		80	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: **XD13016-002**

Description: **2** Matrix: **Solid**

Date Sampled: **04/08/2022 1010** Project Name: **7011 128TH BLG 522** % Solids: **78.9** **04/15/2022 0028**

Date Received: **04/13/2022** Project Number: **40243288**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		81	25-150
13C5_PFHxA		78	25-150
13C5_PFPeA		80	25-150
13C6_PFDA		81	25-150
13C7_PFUdA		87	25-150
13C8_PFOA		92	25-150
13C8_PFOS		85	25-150
13C8_PFOSA		82	10-150
13C9_PFNA		80	25-150
d-EtFOSA		85	10-150
d5-EtFOSAA		88	25-150
d9-EtFOSE		81	10-150
d-MeFOSA		91	10-150
d3-MeFOSAA		83	25-150
d7-MeFOSE		80	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

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC** Laboratory ID: **XD13016-003**

Description: **3** Matrix: **Solid**

Date Sampled: **04/08/2022 0945** Project Name: **7011 128TH BLG 522** % Solids: **76.2** **04/15/2022 0028**

Date Received: **04/13/2022** Project Number: **40243288**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/18/2022 1907	MMM		38262

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	MDL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		2.4	0.19	ug/kg	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		2.4	0.20	ug/kg	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		2.4	0.32	ug/kg	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		2.4	0.36	ug/kg	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		2.4	0.26	ug/kg	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		4.7	0.69	ug/kg	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		2.4	0.18	ug/kg	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		2.4	0.42	ug/kg	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		2.4	0.34	ug/kg	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		2.4	0.27	ug/kg	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		2.4	0.41	ug/kg	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		2.4	0.47	ug/kg	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		2.4	0.40	ug/kg	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		1.2	0.15	ug/kg	1
Perfluoro-1-decanesulfonic acid (PFDS)	**335-77-3**	**PFAS by ID SOP**	**0.61**	**J**	**1.2**	**0.26**	**ug/kg**	**1**
Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8	PFAS by ID SOP	ND		1.2	0.21	ug/kg	1
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		1.2	0.26	ug/kg	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		1.2	0.21	ug/kg	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		1.2	0.22	ug/kg	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		1.2	0.31	ug/kg	1
Perfluorohexanesulfonic acid (PFHxS)	**355-46-4**	**PFAS by ID SOP**	**1.9**		**1.2**	**0.21**	**ug/kg**	**1**
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	ND		1.2	0.49	ug/kg	1
Perfluoro-n-decanoic acid (PFDA)	**335-76-2**	**PFAS by ID SOP**	**0.27**	**J**	**1.2**	**0.19**	**ug/kg**	**1**
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		1.2	0.21	ug/kg	1
Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	PFAS by ID SOP	ND		1.2	0.17	ug/kg	1
Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	PFAS by ID SOP	ND		1.2	0.22	ug/kg	1
Perfluoro-n-nonanoic acid (PFNA)	375-95-1	PFAS by ID SOP	ND		1.2	0.18	ug/kg	1
Perfluoro-n-octanoic acid (PFOA)	**335-67-1**	**PFAS by ID SOP**	**0.37**	**J**	**1.2**	**0.25**	**ug/kg**	**1**
Perfluoro-n-pentanoic acid (PFPeA)	2706-90-3	PFAS by ID SOP	ND		1.2	0.19	ug/kg	1
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		1.2	0.22	ug/kg	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		1.2	0.20	ug/kg	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		1.2	0.22	ug/kg	1
Perfluorooctanesulfonic acid (PFOS)	**1763-23-1**	**PFAS by ID SOP**	**9.8**		**1.2**	**0.42**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		104	25-150
13C2_6:2FTS		134	25-150
13C2_8:2FTS		108	25-150
13C2_PFDoA		98	25-150
13C2_PFTeDA		104	25-150
13C3_PFBS		101	25-150
13C3_PFHxS		95	25-150
13C3-HFPO-DA		102	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: **XD13016-003**

Description: **3** Matrix: **Solid**

Date Sampled: **04/08/2022 0945** Project Name: **7011 128TH BLG 522** % Solids: **76.2** **04/15/2022 0028**

Date Received: **04/13/2022** Project Number: **40243288**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		99	25-150
13C5_PFHxA		95	25-150
13C5_PFPeA		96	25-150
13C6_PFDA		99	25-150
13C7_PFUdA		101	25-150
13C8_PFOA		108	25-150
13C8_PFOS		103	25-150
13C8_PFOSA		99	10-150
13C9_PFNA		100	25-150
d-EtFOSA		116	10-150
d5-EtFOSAA		103	25-150
d9-EtFOSE		94	10-150
d-MeFOSA		104	10-150
d3-MeFOSAA		104	25-150
d7-MeFOSE		98	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

PFAS by LC/MS/MS

Client: **Pace Analytical Services, LLC** Laboratory ID: **XD13016-004**

Description: **4** Matrix: **Solid**

Date Sampled: **04/08/2022 1100** Project Name: **7011 128TH BLG 522** % Solids: **81.5** **04/15/2022 0028**

Date Received: **04/13/2022** Project Number: **40243288**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	SOP SPE	PFAS by ID SOP	1	04/18/2022 1918	MMM		38262

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	MDL	Units	Run
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	PFAS by ID SOP	ND		2.3	0.18	ug/kg	1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3...)	763051-92-9	PFAS by ID SOP	ND		2.3	0.20	ug/kg	1
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	PFAS by ID SOP	ND		2.3	0.32	ug/kg	1
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	27619-97-2	PFAS by ID SOP	ND		2.3	0.35	ug/kg	1
1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2 FTS)	757124-72-4	PFAS by ID SOP	ND		2.3	0.25	ug/kg	1
Hexafluoropropylene oxide dimer acid (GenX)	13252-13-6	PFAS by ID SOP	ND		4.6	0.67	ug/kg	1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	PFAS by ID SOP	ND		2.3	0.17	ug/kg	1
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	PFAS by ID SOP	ND		2.3	0.41	ug/kg	1
N-ethylperfluoro-1-octanesulfonamidoacetic acid (EtFOSAA)	2991-50-6	PFAS by ID SOP	ND		2.3	0.33	ug/kg	1
2-N-ethylperfluoro-1-octanesulfonamido-ethanol (EtFOSE)	1691-99-2	PFAS by ID SOP	ND		2.3	0.26	ug/kg	1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	PFAS by ID SOP	ND		2.3	0.40	ug/kg	1
N-methylperfluoro-1-octanesulfonamidoacetic acid (MeFOSAA)	2355-31-9	PFAS by ID SOP	ND		2.3	0.46	ug/kg	1
2-N-methylperfluoro-1-octanesulfonamido-ethanol (MeFOSE)	24448-09-7	PFAS by ID SOP	ND		2.3	0.39	ug/kg	1
Perfluoro-1-butanesulfonic acid (PFBS)	375-73-5	PFAS by ID SOP	ND		1.2	0.15	ug/kg	1
Perfluoro-1-decanesulfonic acid (PFDS)	335-77-3	PFAS by ID SOP	ND		1.2	0.26	ug/kg	1
Perfluoro-1-heptanesulfonic acid (PFHpS)	**375-92-8**	**PFAS by ID SOP**	**0.21**	**J**	**1.2**	**0.20**	**ug/kg**	**1**
Perfluoro-1-nonanesulfonic acid (PFNS)	68259-12-1	PFAS by ID SOP	ND		1.2	0.25	ug/kg	1
Perfluoro-1-octanesulfonamide (PFOSA)	754-91-6	PFAS by ID SOP	ND		1.2	0.20	ug/kg	1
Perfluoro-1-pentanesulfonic acid (PFPeS)	2706-91-4	PFAS by ID SOP	ND		1.2	0.22	ug/kg	1
Perfluorododecanesulfonic acid (PFDOS)	79780-39-5	PFAS by ID SOP	ND		1.2	0.30	ug/kg	1
Perfluorohexanesulfonic acid (PFHxS)	**355-46-4**	**PFAS by ID SOP**	**3.3**		**1.2**	**0.20**	**ug/kg**	**1**
Perfluoro-n-butanoic acid (PFBA)	375-22-4	PFAS by ID SOP	ND		1.2	0.48	ug/kg	1
Perfluoro-n-decanoic acid (PFDA)	**335-76-2**	**PFAS by ID SOP**	**0.56**	**J**	**1.2**	**0.18**	**ug/kg**	**1**
Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	PFAS by ID SOP	ND		1.2	0.20	ug/kg	1
Perfluoro-n-heptanoic acid (PFHpA)	**375-85-9**	**PFAS by ID SOP**	**0.57**	**J**	**1.2**	**0.17**	**ug/kg**	**1**
Perfluoro-n-hexanoic acid (PFHxA)	**307-24-4**	**PFAS by ID SOP**	**0.89**	**J**	**1.2**	**0.21**	**ug/kg**	**1**
Perfluoro-n-nonanoic acid (PFNA)	**375-95-1**	**PFAS by ID SOP**	**0.83**	**J**	**1.2**	**0.17**	**ug/kg**	**1**
Perfluoro-n-octanoic acid (PFOA)	**335-67-1**	**PFAS by ID SOP**	**1.7**		**1.2**	**0.25**	**ug/kg**	**1**
Perfluoro-n-pentanoic acid (PFPeA)	**2706-90-3**	**PFAS by ID SOP**	**0.42**	**J**	**1.2**	**0.18**	**ug/kg**	**1**
Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	PFAS by ID SOP	ND		1.2	0.22	ug/kg	1
Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	PFAS by ID SOP	ND		1.2	0.20	ug/kg	1
Perfluoro-n-undecanoic acid (PFUdA)	2058-94-8	PFAS by ID SOP	ND		1.2	0.21	ug/kg	1
Perfluorooctanesulfonic acid (PFOS)	**1763-23-1**	**PFAS by ID SOP**	**37**		**1.2**	**0.41**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C2_4:2FTS		92	25-150
13C2_6:2FTS		113	25-150
13C2_8:2FTS		101	25-150
13C2_PFDoA		99	25-150
13C2_PFTeDA		97	25-150
13C3_PFBS		93	25-150
13C3_PFHxS		93	25-150
13C3-HFPO-DA		90	25-150
13C4_PFBA		92	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: **XD13016-004**

Description: **4** Matrix: **Solid**

Date Sampled: **04/08/2022 1100** Project Name: **7011 128TH BLG 522** % Solids: **81.5** **04/15/2022 0028**

Date Received: **04/13/2022** Project Number: **40243288**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
13C4_PFHpA		90	25-150
13C5_PFHxA		88	25-150
13C5_PFPeA		89	25-150
13C6_PFDA		92	25-150
13C7_PFUdA		97	25-150
13C8_PFOA		99	25-150
13C8_PFOS		93	25-150
13C8_PFOSA		94	10-150
13C9_PFNA		91	25-150
d-EtFOSA		103	10-150
d5-EtFOSAA		100	25-150
d9-EtFOSE		85	10-150
d-MeFOSA		96	10-150
d3-MeFOSAA		98	25-150
d7-MeFOSE		89	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

QC Summary

PFAS by LC/MS/MS - MB

Sample ID: XQ38262-001
Batch: 38262
Analytical Method: PFAS by ID SOP
Matrix: Solid
Prep Method: SOP SPE
Prep Date: 12/30/1899 0000

Parameter	Result	Q	Dil	LOQ	MDL	Units	Analysis Date
9Cl-PF3ONS	ND		1	2.0	0.16	ug/kg	04/18/2022 1159
11Cl-PF3OUdS	ND		1	2.0	0.17	ug/kg	04/18/2022 1159
8:2 FTS	ND		1	2.0	0.27	ug/kg	04/18/2022 1159
6:2 FTS	ND		1	2.0	0.31	ug/kg	04/18/2022 1159
4:2 FTS	ND		1	2.0	0.22	ug/kg	04/18/2022 1159
GenX	ND		1	4.0	0.58	ug/kg	04/18/2022 1159
ADONA	ND		1	2.0	0.15	ug/kg	04/18/2022 1159
EtFOSA	ND		1	2.0	0.36	ug/kg	04/18/2022 1159
EtFOSAA	ND		1	2.0	0.29	ug/kg	04/18/2022 1159
EtFOSE	ND		1	2.0	0.23	ug/kg	04/18/2022 1159
MeFOSA	ND		1	2.0	0.35	ug/kg	04/18/2022 1159
MeFOSAA	ND		1	2.0	0.40	ug/kg	04/18/2022 1159
MeFOSE	ND		1	2.0	0.33	ug/kg	04/18/2022 1159
PFBS	ND		1	1.0	0.13	ug/kg	04/18/2022 1159
PFDS	ND		1	1.0	0.22	ug/kg	04/18/2022 1159
PFHpS	ND		1	1.0	0.18	ug/kg	04/18/2022 1159
PFNS	ND		1	1.0	0.22	ug/kg	04/18/2022 1159
PFOSA	ND		1	1.0	0.18	ug/kg	04/18/2022 1159
PFPeS	ND		1	1.0	0.19	ug/kg	04/18/2022 1159
PFDOS	ND		1	1.0	0.26	ug/kg	04/18/2022 1159
PFHxS	ND		1	1.0	0.18	ug/kg	04/18/2022 1159
PFBA	ND		1	1.0	0.42	ug/kg	04/18/2022 1159
PFDA	ND		1	1.0	0.16	ug/kg	04/18/2022 1159
PFDoA	ND		1	1.0	0.18	ug/kg	04/18/2022 1159
PFHpA	ND		1	1.0	0.14	ug/kg	04/18/2022 1159
PFHxA	ND		1	1.0	0.18	ug/kg	04/18/2022 1159
PFNA	ND		1	1.0	0.15	ug/kg	04/18/2022 1159
PFOA	ND		1	1.0	0.21	ug/kg	04/18/2022 1159
PFPeA	ND		1	1.0	0.16	ug/kg	04/18/2022 1159
PFTeDA	ND		1	1.0	0.19	ug/kg	04/18/2022 1159
PFTrDA	ND		1	1.0	0.17	ug/kg	04/18/2022 1159
PFUdA	ND		1	1.0	0.18	ug/kg	04/18/2022 1159
PFOS	ND		1	1.0	0.36	ug/kg	04/18/2022 1159

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		94	25-150
13C2_6:2FTS		135	25-150
13C2_8:2FTS		93	25-150
13C2_PFDoA		91	25-150
13C2_PFTeDA		88	25-150
13C3_PFBS		87	25-150
13C3_PFHxS		88	25-150
13C3-HFPO-DA		86	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: XQ38262-001
Batch: 38262
Analytical Method: PFAS by ID SOP

Matrix: Solid
Prep Method: SOP SPE
Prep Date: 12/30/1899 0000

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBA		89	25-150
13C4_PFHpA		88	25-150
13C5_PFHxA		87	25-150
13C5_PFPeA		86	25-150
13C6_PFDA		87	25-150
13C7_PFUdA		89	25-150
13C8_PFOA		101	25-150
13C8_PFOS		96	25-150
13C8_PFOSA		89	10-150
13C9_PFNA		92	25-150
d-EtFOSA		96	10-150
d5-EtFOSAA		92	25-150
d9-EtFOSE		86	10-150
d-MeFOSA		91	10-150
d3-MeFOSAA		88	25-150
d7-MeFOSE		81	10-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: XQ38262-002
Batch: 38262
Analytical Method: PFAS by ID SOP
Matrix: Solid
Prep Method: SOP SPE
Prep Date: 12/30/1899 0000

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
9Cl-PF3ONS	1.9	1.9		1	100	50-150	04/18/2022 1210
11Cl-PF3OUdS	1.9	1.9		1	102	50-150	04/18/2022 1210
8:2 FTS	1.9	2.0		1	103	50-150	04/18/2022 1210
6:2 FTS	1.9	1.8		1	96	50-150	04/18/2022 1210
4:2 FTS	1.9	2.1		1	112	50-150	04/18/2022 1210
GenX	4.0	3.9		1	98	50-150	04/18/2022 1210
ADONA	1.9	1.9		1	102	50-150	04/18/2022 1210
EtFOSA	2.0	2.0		1	100	50-150	04/18/2022 1210
EtFOSAA	2.0	2.0		1	99	50-150	04/18/2022 1210
EtFOSE	2.0	2.0		1	101	50-150	04/18/2022 1210
MeFOSA	2.0	1.7		1	85	50-150	04/18/2022 1210
MeFOSAA	2.0	2.1		1	105	50-150	04/18/2022 1210
MeFOSE	2.0	2.0		1	99	50-150	04/18/2022 1210
PFBS	1.8	1.7		1	96	50-150	04/18/2022 1210
PFDS	1.9	2.0		1	103	50-150	04/18/2022 1210
PFHpS	1.9	1.9		1	101	50-150	04/18/2022 1210
PFNS	1.9	1.9		1	100	50-150	04/18/2022 1210
PFOSA	2.0	2.0		1	99	50-150	04/18/2022 1210
PFPeS	1.9	1.9		1	99	50-150	04/18/2022 1210
PFDOS	1.9	1.7		1	89	50-150	04/18/2022 1210
PFHxS	1.8	1.8		1	98	50-150	04/18/2022 1210
PFBA	2.0	1.9		1	95	50-150	04/18/2022 1210
PFDA	2.0	2.0		1	99	50-150	04/18/2022 1210
PFDoA	2.0	2.0		1	99	50-150	04/18/2022 1210
PFHpA	2.0	2.0		1	99	50-150	04/18/2022 1210
PFHxA	2.0	2.0		1	101	50-150	04/18/2022 1210
PFNA	2.0	2.0		1	102	50-150	04/18/2022 1210
PFOA	2.0	2.0		1	98	50-150	04/18/2022 1210
PFPeA	2.0	1.9		1	96	50-150	04/18/2022 1210
PFTeDA	2.0	2.0		1	101	50-150	04/18/2022 1210
PFTrDA	2.0	2.0		1	98	50-150	04/18/2022 1210
PFUdA	2.0	2.0		1	100	50-150	04/18/2022 1210
PFOS	1.9	1.9		1	102	50-150	04/18/2022 1210

Surrogate	Q	% Rec	Acceptance Limit
13C2_4:2FTS		94	25-150
13C2_6:2FTS		131	25-150
13C2_8:2FTS		92	25-150
13C2_PFDoA		93	25-150
13C2_PFTeDA		93	25-150
13C3_PFBS		95	25-150
13C3_PFHxS		97	25-150
13C3-HFPO-DA		95	25-150

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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: XQ38262-002
Batch: 38262
Analytical Method: PFAS by ID SOP

Matrix: Solid
Prep Method: SOP SPE
Prep Date: 12/30/1899 0000

Surrogate	Q	% Rec	Acceptance Limit
13C4_PFBA		94	25-150
13C4_PFHpA		91	25-150
13C5_PFHxA		91	25-150
13C5_PFPeA		90	25-150
13C6_PFDA		92	25-150
13C7_PFUdA		94	25-150
13C8_PFOA		106	25-150
13C8_PFOS		92	25-150
13C8_PFOSA		93	10-150
13C9_PFNA		90	25-150
d-EtFOSA		102	10-150
d5-EtFOSAA		95	25-150
d9-EtFOSE		89	10-150
d-MeFOSA		100	10-150
d3-MeFOSAA		97	25-150
d7-MeFOSE		89	10-150

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = 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

[x] Samples Pre-Logged into eCOC.

State Of Origin: WI
Cert. Needed: [x] Yes [ ] No
Owner Received Date: 4/12/2022 Results Requested By: 5/3/2022

Pace Analytical
www.pacelabs.com

Workorder: 40243288 Workorder Name: 7011 128TH BLG 522

Report To	Subcontract To
Steven Mleczko Pace Analytical Green Bay 1241 Bellevue Street Suite 9 Green Bay, WI 54302 Phone (920)469-2436	Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700

XD13016

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	PFAS WI 33	LAB USE ONLY
1	1	PS	4/8/2022 10:30	40243288001	Solid	1	X	
2	2	PS	4/8/2022 10:10	40243288002	Solid	1	X	
3	3	PS	4/8/2022 09:45	40243288003	Solid	1	X	
4	4	PS	4/8/2022 11:00	40243288004	Solid	1	X	
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	[illegible]	4/12/22 1100		
2				
3	UPS	4-13-22 09:55	[illegible]	4/13/22 09:55

Comments

Cooler Temperature on Receipt 3.6 °C | Custody Seal Y or N | Received on Ice Y or N | Samples Intact Y 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.*

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

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

402-43288

Pace Analytical®
www.pacelabs.com

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

(Please Print Clearly)	
Company Name:	Moraine Environmental
Branch/Location:	Fredonia
Project Contact:	Tom Sweet
Phone:	262-692-3345
Project Number:	7011
Project Name:	128th Bld 522
Project State:	WI
Sampled By (Print):	Joe Postlethwaite
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Tom Sweet
Mail To Company:	Moraine Environmental
Mail To Address:	766 Tower Dr Fredonia, WI 53021
Invoice To Contact:	SAME
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

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; B = tissue; C = Charcoal; O = Oil; S = Soil; SL = Sludge; W = Water; DW = Drinking Water; GW = Ground Water; SW = Surface Water; WW = Waste Water; WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	# of containers	PRESERVATION (CODE)	Analyses Requested: PFAS	RCRA Metals	VOCs	SVOCs	PCBs	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
01	1	4/9/22	1030	S	N	4	A	X	X	X	X	X			
02	2	4/8/22	1010	S	N	4	A	X	X	X	X	X			
03	3	4/8/22	0945	S	N	4	F	X	X	X	X	X			
04	4	4/8/22	1100	S	N	4	A	X	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):
Email #1:
Email #2:
Telephone:
Fax:

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
[illegible]	4/12/22 0825		4/12/22 0825
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.
402-43288

Receipt Temp = 0.5 °C
Sample Receipt pH
OK / Adjusted
Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

ORIGINAL

PACE ANALYTICAL SERVICES, LLC

DC#_Title: ENV-FRM-GBAY-0035 v01_Sample Preservation Receipt Form
Revision: 3 | Effective Date: | Issued by: Green Bay

Sample Preservation Receipt Form

Client Name: Moline Project # LD243288

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

Lab Std #ID of preservation (if pH adjusted): _____ Initial when completed: _____ Date/ Time: _____

Lab Lot# of pH paper: _____

Pace Lab #	Glass								Plastic					Vials					Jars			General			VOA Vials (<6mm)	H2SO4 pH ≤2	NaOH+Zn Act 2-4 hrs	NaOH+Zn Act 2-4 hrs	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	RP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN					
001																				2						1					2.5 / 5 / 10
002																															2.5 / 5 / 10
003																															2.5 / 5 / 10
004																				2						1					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	125mL plastic unpres
BG3U	250 mL clear glass unpres						

Page 1 of 2

Quality Document ID: 41307

Pace Analytical Services, LLC

DC#_Title: ENV-FRM-GBAY-0014 v02_SCUR
Revision: 3 | Effective Date: | Issued by: Green Bay

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40243288

Client Name: Mactec

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

Tracking #:

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 - 9 Type of Ice: (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun
Cooler Temperature Uncorr: 0 /Corr: 0.5
Temp Blank Present: ☐ yes ☑ no Biological Tissue is Frozen: ☐ yes ☐ no
Person examining contents: Date: 4/12/22 Initials: DH
Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice. Labeled By Initials:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Samples Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
-VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☑No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12. No time on samples DH 4/12/22
-Includes date/time/ID/Analysis Matrix: S		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑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 login

Page 2 of 2

Qualtrax Document ID: 41292 Pace Analytical Services, LLC

Pace Analytical

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

Revised:9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: Pace Analytical Cooler Inspected by/date: TEC / 04/13/2022 Lot #: XD13016

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: 22-3

3.6 / 3.6 °C NA / NA °C NA / NA °C NA / 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 ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"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 NH_3/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/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 ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: TEC Date: 04/13/2022

Comments:

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew J. Frank, Secretary
Gloria L. McCutcheon, Regional Director

Sturtevant Service Center
9531 Rayne Rd Ste 4
Sturtevant, Wisconsin 53177
Telephone 262-884-2300
FAX 262-884-2307
TTY 262-884-2304

October 20, 2008

128th Air Refueling Wing
C/o Clair Breckenridge
1685 East Grange Ave.
Milwaukee, WI 53207

Subject: Navigability Determinations for all waterways

Dear Mr. Breckenridge:

On Monday June 18, 2008 I met with you for a follow up site visit to discuss the waterways located in the vicinity of the 128th Air Refueling Wing. The purpose of the site visit was to discuss past navigability determinations in 1992, 2000, 2006 and 2007 for various projects and to consider other waterways on the property that have not been reviewed by the Department up to this point. The 128th refueling wing and the Department agreed that one overall determination for this property, identifying and determining the status of all waterways, would be beneficial for both parties in the future for determining the permitting requirements of future projects.

When determining whether a waterway is navigable and public the Department visits the property to determine if the waterway exhibits a defined bed and bank, and a discernible flow such that the waterway does not maintain the necessary dimensions to float a small watercraft, such as a canoe, on a regularly recurring basis. The Department also reviews historical aerial photos, topographic maps, soils maps, the original government survey and the Bordner Survey for a historical prospective on the presence and possible modifications to the waterway. If a waterway appears to have been constructed for drainage and does not exhibit the necessary characteristics to float a small watercraft on a regular basis, the waterway will not meet the State's standards for navigability and would not be regulated under Wis. Stat. ch. 30.

The Department has reviewed all of the aforementioned materials and has made a determination regarding the navigability status of all of the waterbodies located on or adjacent to the 128th ARW property. Included with this letter is an aerial photo of the 128th ARW indicating the locations of the waterways reviewed by this recent jurisdictional request and below is a summary of the Department's findings and a jurisdictional determination.

Waterway	Background and Site Conditions	Jurisdictional Determination
A	These roadside ditches were reviewed by Rachel Sabre on 11/14/200	Not navigable
B	This is the headwaters of Wilson Park Creek. The waterway has been lined with concrete, flows into a culvert and does not re-emerge until it reaches the northeast corner of the airport property. It then becomes Wilson Park Creek.	Not Navigable

C	This waterway flows into Bailey's Pond and was historically dredged by the airport to remove vegetation. Some areas appear to be navigable but most areas lack a defined Ordinary High Water Mark and does not sustain a depth to float a small watercraft on a regularly recurring basis.	Not Navigable
D	This is a ditch that is currently mowed. The ditch does not exhibit any sign of an Ordinary High Water Mark nor a defined bed necessary to be deemed a public water.	Not Navigable
E	This waterway was determined to be navigable in 2000. However, I have reviewed the characteristics of this waterway in 2001 after relocation and enclosure and have reviewed the characteristics in 2008 and believe that the previous navigability determination was in error. The waterway lacks a distinct Ordinary High Water Mark due to a lack of persistent water. Further, although the banks appear large, this waterway was impacted by previous dredging and grading and do not appropriately reflect the characteristics of a bank which has developed because of the presence of flowing water. A defined bed is also absent.	Not navigable
F	This pond has been coined "Bailey's Pond". It is a stormwater pond that was constructed back in 1962 by the City to temporarily store floodwaters. The pond has developed wetland vegetation at the bottom of the pond. Based upon my review of the pond, it does not contain significant functional values such that it would be regulated under Wis. Adm. Code NR 103.06(4). Further, being a dry stormwater pond it would not be regulated as a public waterbody under Wis. Stat. ch. 30.	Private Stormwater Pond

Despite the Department's determination that many of these waterways are non-navigable and not regulated under Wis. Stat. ch. 30, please note that other state, local or federal programs may regulate any projects or activities which may occur on or adjacent to the 128th ARW. If you have any questions please feel free to call me at 262-884-2355 or email me at heidi.hopkins@wisconsin.gov.

Sincerely,

Heidi Hopkins
Water Management Specialist

CC: Greg Failey, Mitchell International
City of Milwaukee
Rebecca Gruber, ACOE
Rachel Sabre

B
C
F
A
D
E

Surface Water Data Viewer Map

Legend

- Wetland Class Areas
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
  - Filled excavated pond
- Filled Points
- Wetland Class Areas
- Filled Areas
- Wetland Identifications and Confirmations
- Railroads
- Index to EN_Image_Basemap_Leaf_Off

Notes

0.1 0 0.03 0.1 Miles

NAD_1983_HARN_Wisconsin_TM

1: 1,980

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 128TH AIR REFUELING WING (ANG)

09 June 2022

MEMORANDUM FOR WISCONSIN DEPARTMENT OF NATURAL RESOURCES

FROM: 128 CES/CEIE
1919 E Grange Ave
Milwaukee WI 53207-6142

SUBJECT: Cover Maintenance Plan – BRRTS # 02-41-582725

1. This document is the Cover Maintenance Plan in accordance with NR 724.13(2), Wis. Adm. Code for the 128th Air Refueling Wing located at 1919 East Grange Avenue, Milwaukee, Wisconsin. The property is located in the NW ¼ Section 34 Township 6N, Range 22 East, Milwaukee County, Wisconsin. The maintenance activities relate to the cover which addresses or occupies the areas over the Perflourinated Compounds (PFAS) contaminated groundwater or soils.

2. **Description of Contamination –** Soil contaminated by PFAS is located at numerous possible release locations (PRLs) across the installation. Soil borings were done and samples taken at ranges from 0-15 feet below grade surface. Groundwater samples were taken from temporary monitoring wells from 0-15 feet below grade surface as part of the Site Inspection and found to be contaminated with PFAS. Results of samples can be found in the FY16 Phase 1 Regional Site Inspections for Perflourinated Compounds report.

3. **Description of Cover to be Maintained** – Soil from construction activities will fall into two types of cover to maintained. See attached map for cover locations.

- Contaminated soils will be placed under an impervious surface. Impervious surface would either be asphalt pavement system consisting typically of four inches of asphalt with a twelve inch compacted gravel base or a eight inch concrete pavement with a nine inch compacted gravel base.
- Contaminated soils will be placed back in the original excavation. Contaminated soils will be covered by minimum of one foot of clean soils, top soil, and seeded.

4. **Cover Purpose** – The cover over the contaminated soil serves as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. Additionally, the cover minimizes future soil to groundwater contamination for PFAS. Based on the current use of the property, industrial, the barrier should function as intended unless disturbed.

5. **Annual Inspection** – The cover overlying the contaminated soil and as depicted in the attached map will be inspected once a year, normally in the spring after all the snow and ice is gone, for deterioration, carcks, and other potential problems that can cause exposure to underlying soils. The inspections will be performed by the property owner or their designated represenatative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to be come exposed will be documented. Inspections will be documented on Form 4400-305 and will include pictures showing current state each year.

6. **Maintenance Activites** – If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching, filling, resurfacing, or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must sample any soil that is excavated from the site prior to disposal to

ascertain if contamination remains. The soil must be treated, stored, and disposed of by the owner in accordance with applicable local, state, and federal law.

In the event the cover overluing the contaminated soil is removed, or replaced, the replacement cover must be equal to cover that was removed. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan undless indicated otherwise by the DNR or it successor.

The property owner, in order to maintain the integrity of the cover, will maintain a copy of this maintenance plan in the Civil Engineer Squadron, Environmental Section and make it available to all interested parites for viewing.

7. **Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cover** – The following activities are prohibited on any portion of the property where a covier is required as shown on the attached map, unless written approval has been obtained from the Wisconsin Department of Natural Resources; 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; or 7) changing the use or occupacncy of the property to residential exposure setting, such as a residence, school, day care, senior center, hospital, or similar residential exposure setting.

If removal, replacement, or other changes to a cover are considered, the property owner will contact the DNR at least 45 days before taking such action, to determine further action may be necessary to protect human health, safety, welfare, or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

8. **Amendment or Withdrawl of Maintenance Plan** – This maintenance plan can be amended or withdrawn by the property owner and it successors with the written approval of Wisconsin Department of Natural Resources.

9. **Contact Information** –

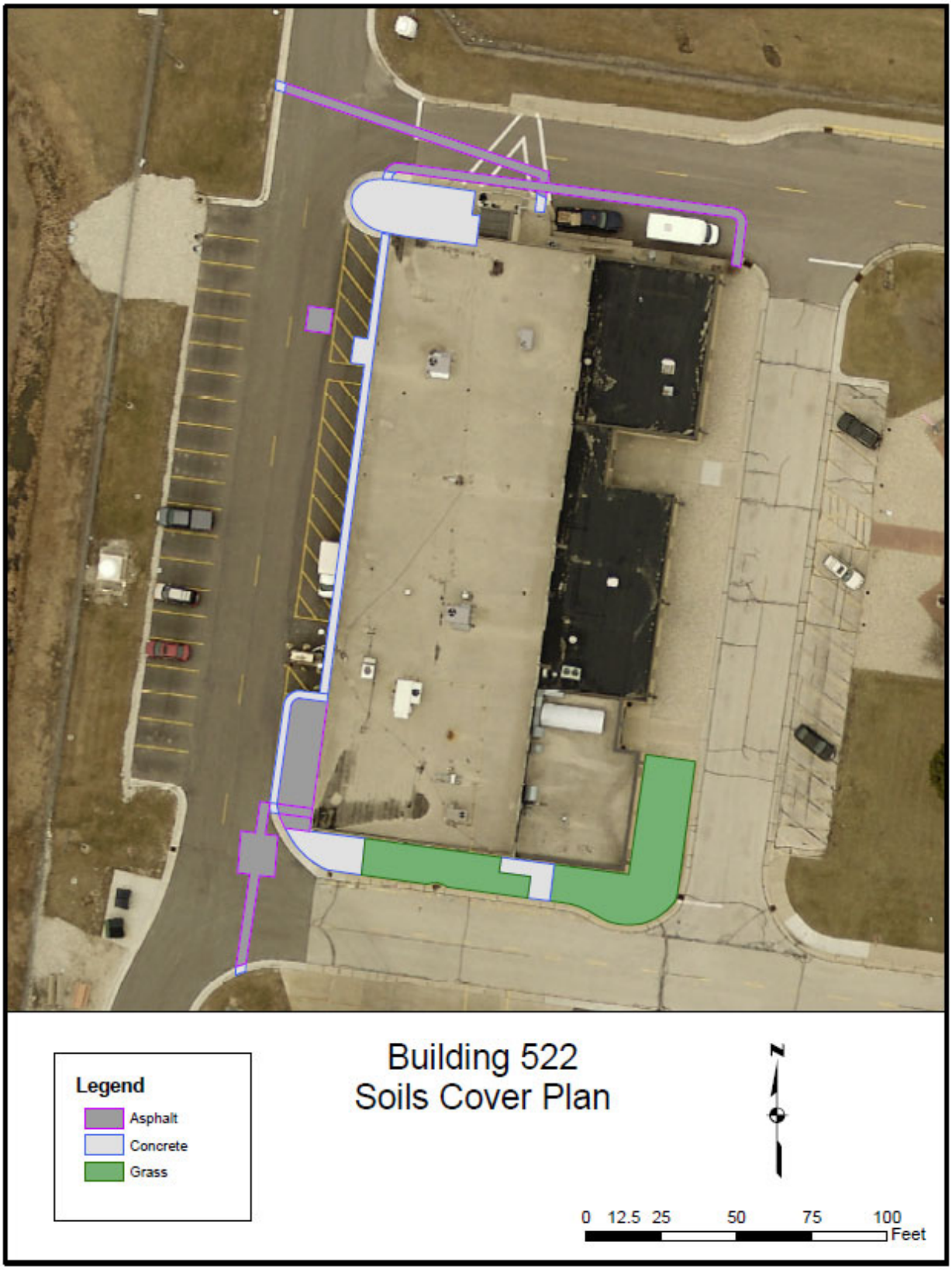
Site Owner and Operator– Wisconsin Air National Guard
1919 East Grange Avenue
Milwaukee, WI 53207
414-944-8414

10. If you have any additional questions, please feel free to contact me at 414-944-8414 or brian.schrader.1@us.af.mil at any time. Thank you in advance for your review of this plan.

BRIAN J. SCHRADER, Capt, WI ANG
Environmental Scientist

Attachment:

1. B522 Cover Map


Legend
Asphalt
Concrete
Grass
Building 522
Soils Cover Plan
N
0 12.5 25 50 75 100
Feet