

#### **Green Bay Location**

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November 25, 2020

Mr. Dave Neste Wisconsin Department of Natural Resources Oshkosh Service Center 625 E. County Road Y, Suite 700 Oshkosh WI 54901-9731

Dear Mr. Neste:

RE: Investigation to Facilitate Soil and Groundwater Management during the Construction of the Proposed Fincantieri Marinette Marine Hull Erection Building (B34/B35)
Fincantieri Marinette Marine – Marinette, Wisconsin

#### Introduction

On behalf of Fincantieri Marinette Marine (FMM), Foth Infrastructure & Environment, LLC (Foth) conducted direct push analytical soil sampling and installed shallow water table monitoring wells in and adjacent to the proposed Hull Erection Building (B34/B35) footprint during the period September 23 – 29, 2020. The work was conducted to characterize soil material and shallow groundwater requiring management during construction excavation and potential groundwater dewatering activities. This letter report has been prepared to provide the Wisconsin Department of Natural Resources (WDNR) with a summary of the investigation analytical findings.

The analytical soil sampling depth was based upon preliminary design information and was intended to characterize the upper material needing removal to install the foundation slab. An early estimate had approximately 45,000 cubic yards of asphalt, gravel and soil representing localized "cuts" of about 3 to 7.5 feet below the existing grade across the construction area, to be excavated and managed. Four installed shallow water table monitoring wells confirmed that the majority of the estimated "soil cut" material lies above the water table, but depending upon the final design some structural features such as foundation pile caps may require deeper excavation below the water table in portions of the proposed construction footprint. The installed water table wells were used to estimate the water table elevation, estimate the localized shallow flow direction, and provide groundwater quality data.

#### **Background**

The FMM property lies in an old, heavily industrialized area of the City of Marinette (City). Review of documents provided by FMM and available from the WDNR indicates that a number of lumber yards existed in the area in the past as well as a railroad (south of Ludington Street) and railroad yard. There are active WDNR Environmental Repair Program (ERP) cases on adjacent properties to the west (WPS manufactured gas plant [WPS MGP]), east (Tyco/Ansul), and southwest (MCABI-Tyco Redevelopment Site). In addition, onsite closed ERP case Bureau for Remediation and Redevelopment Tracking System (BRRTs) #02-38-260867 Marinette Marine Corporation encompasses a large portion of the site in and around the investigated area with a groundwater use restriction. It is also understood that a former municipal dump may have existed in the southwestern corner of the employee parking area to the west of the Building 34 footprint. Foth has no confirmation of location. Last, this area of the site/City was filled in the past with mixed fill to bring it to useable grades.

### **Scope of Investigation**

### **Boring Locations**

A total of 13 borings identified as GP-1 through GP-13 were advanced across the proposed construction footprint area to provide subsurface data. Four of these locations were converted to shallow groundwater monitoring wells. The boring and well locations are shown on Figure 1. Locations were chosen to provide a relatively even areal distribution under the access constraints imposed by active employee parking and existing buildings (on the north end). In addition, some locations were chosen adjacent to previously drilled geotech borings to follow-up on previous observations and/or testing results suggesting potential contamination.

The location and ground surface elevation at each boring location was recorded with a real time kinematic global position system (RTK-GPS) using the horizontal and vertical datums of: North American Datum 1983 (NAD 83) Wisconsin State Plane – Central, and North American Vertical Datum 1988 (NAVD 88), respectively. Boring information, including coordinates and ground surface elevations, are provided in Table 1.

### **Boring Drilling/Sampling Procedures**

Soil sampling was performed using direct push core technology. At each location, core tubes were driven to collect undisturbed soil samples from below the surficial asphalt to a depth of the approximate "soil cut" elevation. With a few exceptions, most sample drives were 5 feet deep or less. Upon retrieval from the borehole, the contents of each core tube was visually inspected and described in accordance with the Unified Soil Classification System (USCS). The soil samples for analytical testing were typically composited over the sample drive interval and placed in appropriate containers for laboratory analyses.

Sample drive recoveries were typically in the 50 to 60% range likely the result of the granular nature of the upper fill material. The soil sample IDs and intervals are shown in Table 1. Boring logs were prepared by a Foth geologist and are included in Attachment 1.

Upon completion of drilling/sampling direct push borings not converted to monitoring wells were abandoned in accordance with NR 141 of the Wisconsin Administrative Code (Wis. Admin. Code). The soil cuttings from the boreholes were containerized in 55-gallon drums for onsite storage pending offsite disposal.

### Monitoring Well Installation

At four of the direct push soil sampling locations, shallow NR 141 compliant water table monitoring wells were installed to a depth of about 13.5 feet below grade. The well boreholes were advanced using decontaminated 4.25-inch ID hollow stem auger (HSA). All wells were constructed of new 2-inch diameter polyvinyl chloride (PVC) casing and a 10-foot screen positioned to intersect the water table. Flushbox covers were concreted inplace at each well location. Monitoring well construction forms are included in Attachment 2.

The monitoring wells were subsequently developed by bailing with per- and polyflouroalkyl substances (PFAS) approved disposable rope and bailers. The development water was containerized in 55-gallon drums for onsite storage pending offsite disposal. Monitoring well development forms are included in Attachment 2.

#### Soil Analytical Testing Results

Soil samples were submitted to Pace Analytical Services, Inc. (Pace) of Green Bay, Wisconsin, for the laboratory analyses of volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAH), Resource Conservation and Recovery Act (RCRA) metals plus copper and zinc, polychlorinated biphenyls (PCB), and pesticides. In addition, select metals fractions with elevated concentrations were also leach tested (Toxicity Characteristic Leaching Procedure [TCLP] and Water Neutral Leach) to evaluate the potential for hazardous waste characteristics and groundwater impacts. These analytical parameters were selected based on the Waste Management (WM) waste protocol requirements for excavated material and owner knowledge as well as potential agency concerns regarding metals leaching to groundwater based on reported soil concentrations. The Pace soil analytical reports are included in Attachment 3.

The soil analytical results are shown in Table 2. The results in Table 2 are shown with and are compared to the Wis. Admin. Code NR 720 residual contaminant levels (RCLs) for industrial direct contact, and the protection of groundwater pathway. Highlighted data cells indicate a concentration value above an NR 720 RCL. In general, one or more

analytical parameters has a reported concentration above an RCL at all soil sampling locations. Some have multiple parameter exceedances. In particular:

- With the exception of arsenic at two locations (GP-3 and GP-13) all soil RCL exceedences are for the groundwater pathway.
- At GP-3 and GP-13 the industrial direct contact and the groundwater pathway soil RCLs for arsenic are exceeded.
- The total PCB concentration exceeds the groundwater pathway RCL at all locations.
- PAH concentrations exceed one or more groundwater pathway RCLs at nine of the 13 locations.
- Metals, most notably lead, selenium, and arsenic exceed one or more RCLs at nine of the 13 locations.
- VOCs and pesticides are much less of an issue with only one location each with a concentration above an RCL.

Collectively, the numerous exceedances of RCLs suggest that the soil material proposed for foundation excavation will not meet the requirements for general fill ("inert") in Wisconsin.

The leach test results do not suggest hazardous waste characteristics, or the potential for significant leaching to groundwater.

#### Groundwater Elevation and Flow

Following the installation and development of the monitoring wells, the top of the PVC well pipe was elevation surveyed; and the depth to groundwater was measured prior to groundwater sampling on September 29, 2020 and again on November 12, 2020. The water table elevations at each monitoring well were calculated and are shown in Table 1. The highest elevation was calculated on the south end of the construction area at GP-1W (585.02 feet NAVD88) and the lowest at GP-4W (581.91 feet NAVD 88) on the north end. Figure 2 depicts the September 29, 2020 water table elevations at each well and presents an estimate of a shallow groundwater flow trending from south to north towards the Menominee River.

#### Groundwater Analytical Testing Results

Groundwater samples were collected on September 29, 2020 and were submitted for the laboratory testing of VOCs, PAHs, RCRA metals plus copper and zinc, PCBs, pesticides,

and PFAS. These analytical parameters were selected to be consistent with the soils protocol and the WDNR's requirement for testing groundwater for PFAS in the City of Marinette due to the prevalence of PFAS environmental impacts in the area. The Eurofins TestAmerica laboratory, located in West Sacramento, California, performed the PFAS testing. Pace performed all the other testing. The groundwater analytical reports are included in Attachment 4.

The samples were collected using low-flow sampling techniques to minimize the potential for turbidity related issues. In addition, the metals fraction was collected as both filtered and unfiltered fractions for comparison purposes. The reported metals results were nearly identical for the filtered and unfiltered fractions suggesting that turbidity was not a factor.

The groundwater analytical results are shown in Table 3. The results in Table 3 are shown with and are compared to the Wis. Admin. Code NR 140 Preventive Action Limit (PAL) and Enforcement Standard (ES) criteria. Highlighted data cells indicate a concentration value above an NR 140 ES and/or PAL. With the exception of two benzene PAL exceedences, VOCs, PAHs, PCBs, and pesticides are not problematic in the groundwater tested. However, elevated arsenic and PFAS were detected at all wells. Barium and lead were also reported above PALs in one or more wells.

### **Summary and Conclusions**

The soil and groundwater characterization testing performed by Foth in the proposed Building 34/35 footprint was carried out to inform FMM and its engineering design team on decisions regarding the management of excavated soils and potentially groundwater. A summary of the findings includes:

- A total of 13 borings, identified as GP-1 through GP-13, were advanced across the proposed construction footprint area to provide subsurface data. Four of these locations were converted to shallow groundwater monitoring wells.
- In general, one or more analytical parameters has a reported concentration above an RCL at all soil sampling locations. Some have multiple parameter exceedances. With the exception of soil arsenic at two locations, the RCL exceedences are related to the groundwater pathway. These results are shown in Table 2.
- With the exception of two benzene PAL exceedences, VOCs, PAHs, PCBs, and pesticides are not problematic in the groundwater tested. However, elevated arsenic and PFAS were detected at all wells. Barium and lead were also reported above PALs in one or more wells. These results are shown in Table 3.

- Preliminarily, it appears that arsenic in groundwater may be associated with one or more source areas. Based on a review of the MCABI Tyco Redevelopment Site investigation report, during the preparation of this report (available on the WDNR's BRRTs site on the web), the dissolved arsenic concentration at upgradient GP-1W is consistent with results reported in groundwater at the northern edge of the MCABI property to the south. The arsenic concentrations reported for the other three investigation wells on the FMM property may also represent the downgradient extension of that plume or isolated impacts. A prior investigation on the FMM property identified elevated arsenic in groundwater at other locations, the highest being 1,900 parts per billion in a temporary well installed near the southeast corner of the yard area (north of the tracks) and across the street from the Tyco property. As a result of those test results, the WDNR required a groundwater use restriction for the property on its GIS registry which remains in place to date (closed ERP BRRTs #02-38-260867).
- The PFAS detected in groundwater in the FMM wells may represent migration of a plume from an upgradient source. This possibility is based on the fact that the highest reported PFOA concentration from the Foth investigation was reported in the upgradient well GP-1W sample (one sampling event). Lastly, Foth has not received any information to date that suggests that FMM used PFAS containing chemicals in this area of the site.

Attached you will also find a completed Form 4400-225 *Notification for Hazardous Substance Discharge* for the detected impacts of this pre-construction investigation (Attachment 5).

If you have any questions regarding this report, please contact either Bob Meller at (920) 496-6866 or Rick Panosh at (920) 496-6658.

Sincerely,

Foth Infrastructure & Environment, LLC

Richard L. Panosh, PG

Lead Environmental Scientist

Robert J. Meller, PG

Lead Environmental Scientist

attachments

cc: Christian Di Rocco, FMM

Ed Swanson, FMM Warren Netzow, FMM Michele Frozena, Foth

# Table 1 Boring Locations & Sampling Intervals Summary B34/B35 Supplemental Investigation Fincantieri Marinette Marine Marinette, Wisconsin

Date	Boring	Monitoring	Boring/We	ll Location	Ground Surface Elevation (ft NAVD	Soil		ample pth		nple vation	Est Soil Cut Depth Elevation (ft NAVD	Top of Well Casing Elevation	9-29-20 Depth to GW	11-12-20 Depth to GW	9-29-20 Groundwater Elevation	11-12-20 Groundwater Elevation
Sampled	No.	Well No.	Northing <sup>1</sup>	Easting <sup>1</sup>	88)	Sample ID		bgs)		VD 88)	88)	(ft NAVD 88)	(ft)	(ft)		(ft NAVD 88)
Analytical Bo	orings															
9/23/20	GP-1	GP-1W	469366.52	2582759.39	588.8	GP-1, 0.2 - 5.5'	0.2	- 5.5	588.6	- 583.3	583.6	588.51	3.65	3.49	584.86	585.02
9/24/20	GP-2		469516.71	2582866.89	588.1	GP-2, 0.2 - 4.5'*	0.2	- 4.5	587.9	- 583.6	583.6					
9/24/20	GP-3	GP-3W	469642.04	2582954.00	587.4	GP-3, 0.1 - 4.0'	0.1	- 4.0	587.3	- 583.4	583.6	586.89	4.35	4.47	582.54	582.42
9/23/20	GP-4	GP-4W	469890.04	2583130.81	587.9	GP-4, 0.0 - 4.0'	0.0	- 4.0	587.9	- 583.9	583.6	587.63	5.72	5.72	581.91	581.91
9/24/20	GP-5		470101.40	2582988.89	587.5	GP-5, 0.2 - 4.0'	0.2	- 4.0	587.3	- 583.5	583.6					
9/23/20	GP-6	GP-6W	469892.02	2582873.22	588.2	GP-6, 0.2 - 5.0'	0.2	- 5.0	588.0	- 583.2	583.6	587.90	5.77	5.88	582.13	582.02
9/24/20	GP-7		469709.70	2582757.59	588.6	GP-7, 0.3 - 5.0'	0.3	- 5.0	588.3	- 583.6	583.6					
9/24/20	GP-8		469544.18	2582650.98	589.9	GP-8, 0.3 - 6.5'	0.3	- 6.5	589.6	- 583.4	583.6					
9/24/20	GP-9		469778.40	2582921.94	587.5	GP-9, 0.2 - 4.0'	0.2	- 4.0	587.3	- 583.5	583.6					
9/23/20	GP-10		469874.03	2583251.26	587.4	GP-10, 0.3 - 4.0'	0.5	- 4.0	586.9	- 583.4	583.6					
9/23/20	GP-11		469400.35	2582818.08	588.2	GP-11, 0.3 - 4.5'	0.3	- 4.5	587.9	- 583.7	583.6					
9/24/20	GP-12		469422.03	2582643.76	590.8	GP-12, 0.2 - 5.0'	0.2	- 5.0	590.6	- 585.8	583.6					
9/24/20	GP-12				590.8	GP-12, 5.0 - 7.5'	5.0	- 7.5	585.8	- 583.3	583.6					
9/24/20	GP-13		469604.44	2582843.32	587.4	GP-13, 0.2 - 4.0'	0.2	- 4.0	587.2	- 583.4	583.6					

Notes:

1 = Wisconsin State Plane - Central

NAVD = North American Vertical Datum

Prepared by: RLP1 Checked by: RJM7

<sup>\* =</sup> The GP-2, 0.2 - 4.5' sample drive was subdivided into two analytical samples, an "GP-2, 0.2 - 4.5' UPPER" and a "GP-2, 0.2 - 4.5' LOWER".

### Soil Analytical Results Compared to WI NR 720 Criteria **B34/B35 Supplemental Investigation Fincantieri Marinette Marine**

### Marinette, Wisconsin

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		WDNR	NR 720				Sample ID		
A	nalysis	Direct Contact RCL <sup>1</sup>	GW Pathway RCL <sup>1</sup>	Units	GP-1, 0.2-5.5'	GP-2, 0.2 - 4.5' UPPER	GP-2, 0.2 - 4.5' LOWER	GP-3, 0.1 - 4.0'	GP-4, 0.0 - 4.0'
ASTM D2974-87	Moisture	N/A	N/A	%	7.4	6.1	9.1	14.0	4.4
	Benzene	7,070	5.1	ug/kg	<25	<25	<25	152	<25
	Ethylbenzene	35,400	1,570	ug/kg	<25	<25	<25	30.1 J	<25
	Chlorobenzene	761,000	135.8	ug/kg	<25	<25	<25	<25	<25
	p-Isopropyltoluene	162,000	N/A	ug/kg	<25	<25	<25	38.0 J	<25
	1,4-Dichlorobenzene	16,400	144.0	ug/kg	<25 <30	<25 <30	<25	53.0 J	<25
EPA 8260	n-Butylbenzene sec-Butylbenzene	108,000 145,000	N/A N/A	ug/kg ug/kg	<30 <25	<25	<30 <25	<30 <25	<30 <25
<b>Detected VOCs</b>	tert-Butylbenzene	183,000	N/A	ug/kg ug/kg	<25	<25	<25	<25	<25
	Naphthalene	24,100	658.2	ug/kg	<27.3	<27.3	69.0 J	35.4 J	<27.3
	Toluene	818,000	1,107	ug/kg	<25	<25	<25	67.6 J	<25
	1,2,4-Trimethylbenzene	219,000	1,378.7	ug/kg	<25	<25	<25	<25	<25
	1,3,5-Trimethylbenzene	182,000	1,376.7	ug/kg	<25	<25	<25	<25	<25
	m&p-Xylene	260,000	3,960	ug/kg	<50	<50 <25	<50	77.2 J 42.1 J	<50
	o-Xylene Arsenic	8.3 <sup>2</sup>	8.3 <sup>2</sup>	ug/kg mg/kg	<25 4.3	3.4	<25 6.4	325	<25 2.6
	Barium	100,000	164.8	mg/kg	25.4	14.2	255	160	15.4
	Cadmium	985	0.752	mg/kg	0.55 J	<0.098	0.42 J	1.4	0.29J
EPA 6020	Chromium	43.5 <sup>2</sup>	43.5 <sup>2</sup>	mg/kg	10.4	7.9	10.0	32.4	9.6
Metals	Copper	46,700	91.6	mg/kg	23.5	17.0	40.3	366	33.6
	Lead	800	27	mg/kg	18.2	26.9	99.3	304	50.9
	Selenium Silver	5,840 5,840	0.52 0.85	mg/kg mg/kg	0.79 0.23 J	0.21 J <0.096	0.78 0.24 J	0.59 J 0.47	0.47 J 0.11 J
	Zinc	100,000	N/A	mg/kg	62.5	75.4	82.1	537	83.8
EPA 7471	Mercury	3.13	0.208	mg/kg	0.028 J	< 0.011	0.069	0.15	0.016 J
EPA 6010	Arsenic	NA	NA	mg/L	NT	NT	NT	0.056	NT
TCLP EPA 6020	Lead Lead	NA NA	NA NA	mg/L mg/L	NT NT	NT NT	NT NT	0.097 <0.00024	NT NT
Water Neutral Leach	Zinc	NA NA	NA NA	mg/L	NT	NT	NT	<0.010	NT
	Aldrin	187	N/A	ug/kg	<28.6	<5.6	<29.4	<6.2	<5.6
	alpha-BHC	365	N/A	ug/kg	<12.2	<2.4	<12.6	<2.7	<2.4
	beta-BHC delta-BHC	1,280 N/A	N/A N/A	ug/kg	<20.5 <15.6	<4.1 <3.1	<21.1 <16.0	<4.4 <3.4	<4.0 <3.0
	gamma-BHC (Lindane)	2,540	2.3	ug/kg ug/kg	<13.6	<2.2	<11.6	<2.5	<2.2
	Chlordane	7,760	542	ug/kg	<295	<58.1	<303	<63.8	<57.2
	alpha-Chlordane	N/A	N/A	ug/kg	<12.3	<2.4	<12.7	<2.7	<2.4
	gamma-Chlordane 4,4'-DDD	N/A 9,570	N/A N/A	ug/kg ug/kg	<28.7 <20.7	<5.7 <4.1	<29.5 <21.3	<6.2 9.7 J	<5.6 <4.0
	4,4'-DDE	9,370	N/A	ug/kg	<19.4	<3.8	<19.9	11.5 J	<3.8
EPA 8081	4,4'-DDT	8,530	N/A	ug/kg	<43.6	< 8.6	<44.8	<9.4	< 8.5
Pesticides	Dieldrin	144	N/A	ug/kg	<18.6	4.9 J	<19.1	5.2 J	<3.6
	Endosulfan I Endosulfan II	N/A N/A	N/A N/A	ug/kg ug/kg	<14.9 <29.6	<2.9 <5.8	<15.3 <30.4	<3.2 <6.4	<2.9 <5.8
	Endosulfan sulfate	N/A	N/A	ug/kg	<35.8	<7.1	<36.7	<7.7	<7.0
	Endrin	246,000	162	ug/kg	<20.4	<4.0	<20.9	<4.4	<4.0
	Endrin aldehyde	N/A	N/A	ug/kg	<40.2	<7.9	<41.4	<8.7	<7.8
	Endrin ketone Heptachlor	N/A 654	N/A 66.2	ug/kg ug/kg	<49.4 <20.1	<9.8 <4.0	<50.8 <20.7	<10.7 <4.4	<9.6 <3.9
	Heptachlor epoxide	338	8.2	ug/kg ug/kg	<13.8	<2.7	<14.2	<3.0	<2.7
	Methoxychlor	4,100,000	4,320	ug/kg	<295	<58.3	<303	<63.9	<57.4
	Toxaphene PCPs Total	2,090 N/A	928	ug/kg	<791	<156 22.7 J	<813	<171	<154
	PCBs - Total PCBs - Aroclor 1016	N/A 28,000	9.4 N/A	ug/kg ug/kg	22.6 J <16.4	22.7 J <16.2	62.1 <16.7	141 <17.7	21.8 J <16.0
	PCBs - Aroclor 1221	883	N/A	ug/kg	<16.4	<16.2	<16.7	<17.7	<16.0
EPA 8082A	PCBs - Aroclor 1232	792	N/A	ug/kg	<16.4	<16.2	<16.7	<17.7	<16.0
300211	PCBs - Aroclor 1242	972 975	N/A	ug/kg	<16.4 <16.4	<16.2	<16.7 <16.7	22.2 J <17.7	<16.0 <16.0
	PCBs - Aroclor 1248 PCBs - Aroclor 1254	975	N/A N/A	ug/kg ug/kg	<16.4 22.6 J	<16.2 22.7 J	<16.7 40.1 J	<17.7 62.6	<16.0 21.8 J
	PCBs - Aroclor 1260	1,000	N/A	ug/kg	<16.4	<16.2	22.0 J	55.9 J	<16.0
	1-Methylnaphthalene	72,700	N/A	ug/kg	25.0 J	16.0 J	163 J	35.7	<25.5
	2-Methylnaphthalene Acenaphthene	3,010,000 45,200,000	N/A N/A	ug/kg	29.4 J 29.8 J	23.0 3.4 J	151 J 104 J	52.1 22.9	<25.5 <22.7
	Acenaphthylene Acenaphthylene	N/A	N/A N/A	ug/kg ug/kg	29.8 J 15.1 J	9.4 J	104 J 145 J	24.4	22.1 J
	Anthracene	100,000,000	196,949	ug/kg	35.1 J	15.6 J	356	58.6	114 J
	Benzo(a)anthracene	20,800	N/A	ug/kg	168	64.1	730	172	680
	Benzo(a)pyrene Benzo(b)fluoranthene	2,110 21,100	470 478.1	ug/kg ug/kg	254 367	99.1 135	909	225 339	960 1410
EPA 8270	Benzo(b)Huorantnene Benzo(ghi)perylene	21,100 N/A	N/A	ug/kg ug/kg	169	88.7	673	132	593
PAHs	Benzo(k)fluoranthene	211,000	N/A	ug/kg	145	59.0	478	126	537
	Chrysene	2,110,000	144.2	ug/kg	245	89.2	878	228	951
	Dibenzo(a,h)anthracene	2,110	N/A	ug/kg	39.9	18.5	172 J 1540	45.4	157 J 1640
	Fluoranthene Fluorene	30,100,000	88,878 14,830	ug/kg ug/kg	381 17.3 J	131 4.9 J	1540 182 J	318 27.6	1640 21.0 J
	Indeno(1,2,3-cd)pyrene	21,100	N/A	ug/kg	139	67.9	501	117	524
	Naphthalene	24,100	658.2	ug/kg	24.4 J	19.3	182 J	118	<17.0
	Phenanthrene	N/A	N/A	ug/kg	138	46.6	1020	220	520
	Pyrene	22,600,000	54,546	ug/kg	283	100	1190	236	1200

N/A = Not available NT = Not Tested

VOC = Volatile organic compound

TCLP = Toxicity characteristic leaching procedure

PAH = Polycyclic aromatic hydrocarbons

PCB = Polychlorinated biphenyls

Prepared by: RLP1

Checked by: RJM7

<sup>&</sup>lt; = Parameter not detected at or above the laboratory detection limit shown.

J = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ).

<sup>2.0 =</sup> Concentration above WDNR Industrial Direct Contact Residual Contaminant Level (RCL).

<sup>1.1 =</sup> Concentration above WDNR Groundwater Pathway RCL.

1= WDNR Industrial Direct Contact and Groundwater Pathway RCLs from WDNR online RCL Excel Spreadsheet, updated December 2018. DF=2 for GW RCL.

2= Statewide background threshold values used in the WDNR online RCL Excel spreadsheet are referenced as non-outlier trace element maximum levels in Wisconsin surface soils from the USGS Report at: http://pubs.usgs.gov/sir/2011/5202 . See also WDNR Publication RR-940.

### Soil Analytical Results Compared to WI NR 720 Criteria **B34/B35 Supplemental Investigation Fincantieri Marinette Marine**

### Marinette, WI

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			NR 720	4		1	Sample ID	1	T
	makraja	Direct Contact RCL <sup>1</sup>	GW Pathway RCL <sup>1</sup>	Units	GP-5, 0.2 - 4.0'	GP-6, 0.2 - 5.0'	GP-7, 0.3 - 5.0'	GP-8, 0.3 - 6.5'	GP-9, 0.2 - 4.0'
ASTM D2974-87	malysis  Moisture	N/A	N/A	%	5.4	7.5	6.6	8.6	6.4
131M D2774-07	Benzene	7,070	5.1	ug/kg	<25	<25	<25	<25	<25
	Ethylbenzene	35,400	1,570	ug/kg	<25	<25	<25	<25	<25
	Chlorobenzene	761,000	135.8	ug/kg	<25	<25	<25	<25	<25
	p-Isopropyltoluene	162,000	N/A	ug/kg	<25	<25	<25	84.6	<25
	1,4-Dichlorobenzene	16,400	144.0	ug/kg	<25	<25	<25	<25	<25
	n-Butylbenzene	108,000	N/A	ug/kg	<30	<30	<30	<30	<30
EPA 8260 Detected VOCs	sec-Butylbenzene	145,000	N/A	ug/kg	<25	<25	<25	<25	<25
Detected VOCs	tert-Butylbenzene	183,000	N/A	ug/kg	<25	<25	<25	<25	<25
	Naphthalene	24,100	658.2	ug/kg	67.2 J <25	<27.3	<27.3 <25	31.4 J <25	29.3 J 82.3
	Toluene 1,2,4-Trimethylbenzene	818,000 219,000	1,107	ug/kg ug/kg	45.0 J	58.3 J <25	<25	<25	<25
	1,3,5-Trimethylbenzene	182,000	1378.7	ug/kg	<25	<25	<25	<25	<25
	m&p-Xylene	260,000	3960	ug/kg	<50	<50	<50	<50	<50
	o-Xylene	·		ug/kg	<25	<25	<25	<25	33.6 J
	Arsenic	8.3 <sup>2</sup>	8.3 <sup>2</sup>	mg/kg	2.2	4.0	3.1	2.8	2.0
	Barium	100,000	164.8	mg/kg	12.1	44.3	16.2	26.4	13.4
	Cadmium	985	0.752	mg/kg	0.10 J	0.71 J	0.11 J	0.14 J	<0.099
EPA 6020	Copper	43.5 <sup>2</sup>	43.52	mg/kg	11.7	10.6 34.8	9.2	11.5 20.5	9.5
Metals	Copper Lead	46,700 800	91.6 27	mg/kg mg/kg	13.1	34.8 129	20.8	33.5	18.5
	Selenium	5,840	0.52	mg/kg	0.34 J	0.55 J	0.34 J	0.36 J	0.34 J
	Silver	5,840	0.85	mg/kg	<0.096	<0.10	<0.10	<0.10	<0.097
ED4 5451	Zinc	100,000	N/A	mg/kg	60.6	1790	66.8	119	30.9
EPA 7471 EPA 6010	Mercury Arsenic	3.13 NA	0.208 NA	mg/kg mg/L	0.015 J NT	0.070 NT	0.017 J NT	0.044 NT	0.015 J NT
TCLP	Lead	NA NA	NA NA	mg/L	NT	0.056	NT	NT	NT
EPA 6020	Lead	NA	NA	mg/L	NT	< 0.00024	NT	NT	NT
Water Neutral Leach	Zinc	NA	NA	mg/L	NT	< 0.010	NT	NT	NT
	Aldrin	187	N/A	ug/kg	<5.6	<2.9	<11.3	<29.2	<2.9
	alpha-BHC beta-BHC	365 1,280	N/A N/A	ug/kg ug/kg	<2.4 <4.0	<1.2 <2.1	<4.8 <8.1	<12.5 <20.9	<1.2 <2.0
	delta-BHC	N/A	N/A	ug/kg	<3.1	<1.6	<6.2	<15.9	<1.6
	gamma-BHC (Lindane)	2,540	2.3	ug/kg	<2.2	<1.1	<4.5	<11.6	<1.1
	Chlordane	7,760	542	ug/kg	<57.8	<29.7	<117	<300	<29.4
	alpha-Chlordane gamma-Chlordane	N/A N/A	N/A N/A	ug/kg	<2.4 <5.6	<1.2 <2.9	<4.9 <11.4	<12.6 <29.3	<1.2 <2.9
	4,4'-DDD	9,570	N/A	ug/kg ug/kg	<4.1	<2.9	<8.2	<21.1	<2.1
	4,4'-DDE	9,380	N/A	ug/kg	<3.8	<2.0	<7.7	<19.8	2.7 J
EPA 8081	4,4'-DDT	8,530	N/A	ug/kg	<8.6	<4.4	<17.3	<44.4	<4.3
Pesticides	Dieldrin Endosulfan I	144 N/A	N/A N/A	ug/kg ug/kg	<3.7 <2.9	6.1 J <1.5	<7.4 <5.9	<19.0 <15.2	<1.9 <1.5
	Endosulfan II	N/A	N/A	ug/kg ug/kg	<5.8	<3.0	<11.7	<30.2	<3.0
	Endosulfan sulfate	N/A	N/A	ug/kg	<7.0	<3.6	<14.2	<36.5	<3.6
	Endrin	246,000	162	ug/kg	<4.0	<2.1	<8.1	<20.8	<2.0
	Endrin aldehyde Endrin ketone	N/A N/A	N/A N/A	ug/kg ug/kg	<7.9 <9.7	<4.1 12.1 J	<15.9 <19.6	<41.0 <50.4	<4.0 <4.9
	Heptachlor	654	66.2	ug/kg	<3.9	<2.0	<8.0	<20.5	<2.0
	Heptachlor epoxide	338	8.2	ug/kg	<2.7	<1.4	<5.5	<14.1	3.6 J
	Methoxychlor	4,100,000	4320	ug/kg	<58.0	<29.7	<117	<301	<29.5
	Toxaphene PCBs - Total	2,090 N/A	928 9.4	ug/kg ug/kg	<155 57.6	<79.8 599	<313 27.5 J	<807 47.4 J	<79.0 507
	PCBs - Total PCBs - Aroclor 1016	28,000	9.4 N/A	ug/kg ug/kg	<16.1	<16.4	<16.4	<16.7	<16.2
	PCBs - Aroclor 1221	883	N/A	ug/kg	<16.1	<16.4	<16.4	<16.7	<16.2
EPA 8082A	PCBs - Aroclor 1232	792	N/A	ug/kg	<16.1	<16.4	<16.4	<16.7	<16.2
<del></del>	PCBs - Aroclor 1242 PCBs - Aroclor 1248	972 975	N/A N/A	ug/kg ug/kg	<16.1 <16.1	455 <16.4	<16.4 <16.4	<16.7 <16.7	507 <16.2
	PCBs - Aroclor 1248 PCBs - Aroclor 1254	988	N/A N/A	ug/kg ug/kg	57.6	125	<16.4 27.5 J	47.4 J	<16.2
	PCBs - Aroclor 1260	1,000	N/A	ug/kg	<16.1	19.0 J	<16.4	<16.7	<16.2
	1-Methylnaphthalene	72,700	N/A	ug/kg	17.3 J	47.7	20.2	36.9	35.6
	2-Methylnaphthalene	3,010,000	N/A	ug/kg	18.3 J	59.9	30.1 <2.3	54.0 9.3 J	48.9
	Acenaphthene Acenaphthylene	45,200,000 N/A	N/A N/A	ug/kg ug/kg	17.0 J 39.8	8.0 J 8.5 J	<2.3 7.3 J	9.3 J	<2.3 5.5 J
	Anthracene	100,000,000	196,949	ug/kg	55.2	16.6 J	10.6 J	82.9	6.9 J
	Benzo(a)anthracene	20,800	N/A	ug/kg	110	38.4	33.6	296	21.9
	Benzo(a)pyrene	2,110	470	ug/kg	151	41.9	58.9 76.0	434	38.0
EPA 8270	Benzo(b)fluoranthene Benzo(ghi)perylene	21,100 N/A	478.1 N/A	ug/kg ug/kg	193 124	60.9	76.9 53.1	525 289	51.0 43.8
PAHs	Benzo(k)fluoranthene	211,000	N/A	ug/kg	78.1	22.9	33.2	203	19.7
	Chrysene	2,110,000	144.2	ug/kg	142	49.2	51.5	330	29.3
	Dibenzo(a,h)anthracene		N/A	ug/kg	30.8 J	6.4 J	10.6 J	70.6	7.2 J
	Fluoranthene Fluorene	30,100,000	88,878 14,830	ug/kg ug/kg	212 28.6 J	73.3 11.3 J	62.3 3.7 J	495 16.3 J	34.7 3.6 J
	Indeno(1,2,3-cd)pyrene	21,100	N/A	ug/kg ug/kg	94.5	19.4	38.2	248	30.8
	Naphthalene	24,100	658.2	ug/kg	46.5	43.0	23.2	69.8	33.0
	Phenanthrene	N/A	N/A	ug/kg	122	70.4	29.0	167	31.2
	Pyrene	22,600,000	54,546	ug/kg	174	<2.7	55.8	406	36.2

- < = Parameter not detected at or above the laboratory detection limit shown.
- $J = Estimated \ concentration \ at \ or \ above \ the \ Limit \ of \ Detection \ (LOD) \ and \ below \ the \ Limit \ of \ Quantitation \ (LOQ).$

N/A = Not available

NT = Not TestedVOC = Volatile organic compound

TCLP = Toxicity characteristic leaching procedure

PAH = Polycyclic aromatic hydrocarbons PCB = Polychlorinated biphenyls

Prepared by: RLP1

Checked by: RJM7

<sup>2.0 =</sup> Concentration above WDNR Industrial Direct Contact Residual Contaminant Level (RCL).

1.1 = Concentration above WDNR Groundwater Pathway RCL.

1= WDNR Industrial Direct Contact and Groundwater Pathway RCLs from WDNR online RCL Excel Spreadsheet, updated December 2018. DF=2 for GW RCL.

2= Statewide background threshold values used in the WDNR online RCL Excel spreadsheet are referenced as non-outlier trace element maximum levels in Wisconsin surface soils from the USGS Report at: http://pubs.usgs.gov/sir/2011/5202 . See also WDNR Publication RR-940.

### Soil Analytical Results Compared to WI NR 720 Criteria **B34/B35 Supplemental Investigation Fincantieri Marinette Marine** Marinette, WI

(Page 3 of 3)

			NR 720				Sample ID		
		Direct Contact	GW Pathway		GP-10, 0.3 - 4.0'	GP-11, 0.3 - 4.5'	GP-12, 0.2 - 5.0'	GP-12, 5.0 - 7.5'	GP-13, 0.2 - 4.0
A	nalysis	RCL <sup>1</sup>	RCL <sup>1</sup>	Units	GP-10, 0.3 - 4.0	GP-11, 0.3 - 4.5	GP-12, 0.2 - 5.0	GP-12, 5.0 - 7.5	GP-13, 0.2 - 4.0
STM D2974-87	Moisture	N/A	N/A	%	8.1	9.1	5.8	15.4	9.6
	Benzene	7,070	5.1	ug/kg	<25	<25	<25	<25	<25
	Ethylbenzene	35,400	1,570	ug/kg	<25	<25	<25	<25	<25
	Chlorobenzene	761,000	135.8	ug/kg	<25	<25	<25	<25	<25
	p-Isopropyltoluene	162,000	N/A	ug/kg	<25	<25	<25	<25	<25
	1,4-Dichlorobenzene	16,400	144.0	ug/kg	<25	<25	<25	<25	<25
	n-Butylbenzene	108,000	N/A	ug/kg	<30	<30	<30	<30	<30
EPA 8260	sec-Butylbenzene	145,000	N/A	ug/kg	<25	<25	<25	<25	<25
Detected VOCs	tert-Butylbenzene	183,000	N/A	ug/kg	<25	<25	<25	<25	<25
	Naphthalene	24,100	658.2	ug/kg	<27.3	<27.3	49.2 J	52.7 J	57.4 J
	Toluene	818,000	1,107	ug/kg	<25	<25	<25	<25	116
	1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	219,000	1378.7	ug/kg	<25 <25	<25 <25	<25 <25	<25 <25	30.3 J <25
	m&p-Xylene	182,000		ug/kg ug/kg	<50	<50	<50	<50	96.6 J
	o-Xylene	260,000	3960	ug/kg	<25	<25	<25	<25	49.4 J
	Arsenic	8.3 <sup>2</sup>	8.3 <sup>2</sup>	mg/kg	3.5	4.0	2.8	5.1	44.4
	Barium	100,000	164.8	mg/kg	22.4	34.4	35.2	34.5	182
	Cadmium	985	0.752	mg/kg	0.12 J	< 0.11	< 0.098	0.39 J	3.1
EPA 6020	Chromium	43.5 <sup>2</sup>	$43.5^{2}$	mg/kg	12.4	14.9	10.2	12.5	14.8
Metals	Copper	46,700	91.6	mg/kg	29.0	26.7	17.0	24.3	74.4
	Lead	800 5.840	27	mg/kg	21.5	28.5	24.8	207	269
	Selenium Silver	5,840 5,840	0.52 0.85	mg/kg mg/kg	0.59 J <0.10	0.55 J <0.10	0.48 J <0.096	0.57 J 0.14 J	0.76 0.27 J
	Zinc	100,000	N/A	mg/kg	56.6	110	48.3	84.3	803
EPA 7471	Mercury	3.13	0.208	mg/kg	0.038	0.028 J	0.012 J	0.074	0.44
EPA 6010	Arsenic	NA	NA	mg/L	NT	NT	NT	NT	NT
TCLP	Lead	NA	NA	mg/L	NT	NT	NT	0.033	0.044
EPA 6020 Vater Neutral Leach	Lead Zinc	NA NA	NA NA	mg/L	NT NT	NT NT	NT NT	<0.00024 <0.010	<0.00024 <0.010
vater Neutral Leach	Aldrin	187	N/A	mg/L ug/kg	<29.1	<29.2	<5.7	<31.5	<29.5
	alpha-BHC	365	N/A	ug/kg	<12.4	<12.5	<2.4	<13.5	<12.6
	beta-BHC	1,280	N/A	ug/kg	<20.9	<21.0	<4.1	<22.6	<21.2
	delta-BHC	N/A	N/A	ug/kg	<15.9	<15.9	<3.1	<17.2	<16.1
	gamma-BHC (Lindane) Chlordane	2,540 7,760	2.3 542	ug/kg	<11.5 <299	<11.6	4.2 J	<12.5 <324	<11.7
	alpha-Chlordane	7,760 N/A	N/A	ug/kg ug/kg	<299 <12.5	<301 <12.6	<58.4 <2.4	<13.6	<304 <12.7
	gamma-Chlordane	N/A	N/A	ug/kg	<29.2	<29.3	<5.7	<31.6	<29.6
	4,4'-DDD	9,570	N/A	ug/kg	<21.0	<21.1	<4.1	<22.8	<21.3
	4,4'-DDE	9,380	N/A	ug/kg	<19.7	<19.8	<3.8	<21.4	<20.0
EPA 8081 Pesticides	4,4'-DDT Dieldrin	8,530 144	N/A N/A	ug/kg ug/kg	<44.3 <18.9	<44.5 <19.0	<8.6 <3.7	<48.0 <20.5	<44.9 <19.2
resticites	Endosulfan I	N/A	N/A N/A	ug/kg ug/kg	<15.2	<15.2	<3.0	<16.4	<19.2
	Endosulfan II	N/A	N/A	ug/kg	<30.1	<30.3	<5.9	<32.6	<30.5
	Endosulfan sulfate	N/A	N/A	ug/kg	<36.3	<36.5	<7.1	<39.4	<36.9
	Endrin	246,000	162	ug/kg	<20.7	<20.8	<4.0	<22.4	<21.0
	Endrin aldehyde Endrin ketone	N/A N/A	N/A N/A	ug/kg ug/kg	<40.9 <50.2	<41.1 <50.5	<8.0 <9.8	<44.3 <54.4	<41.5 <51.0
	Heptachlor	654	66.2	ug/kg	<20.4	<20.5	<4.0	<22.1	<20.7
	Heptachlor epoxide	338	8.2	ug/kg	<14.0	<14.1	<2.7	<15.2	<14.2
	Methoxychlor	4,100,000	4320	ug/kg	<300	<301	<58.5	<325	<304
	Toxaphene DCPs Total	2,090	928	ug/kg	<804	<808	<157	<871 87.4	<816
	PCBs - Total PCBs - Aroclor 1016	N/A 28,000	9.4 N/A	ug/kg ug/kg	67.2 <16.5	25.4 J <16.7	35.7 J <16.1	87.4 <17.9	156 <16.8
	PCBs - Aroclor 1221	883	N/A	ug/kg	<16.5	<16.7	<16.1	<17.9	<16.8
EPA 8082A	PCBs - Aroclor 1232	792	N/A	ug/kg	<16.5	<16.7	<16.1	<17.9	<16.8
LITI OVOZA	PCBs - Aroclor 1242	972	N/A	ug/kg	<16.5	<16.7	<16.1	<17.9	<16.8
	PCBs - Aroclor 1248 PCBs - Aroclor 1254	975 988	N/A N/A	ug/kg ug/kg	<16.5 35.0 J	<16.7 25.4 J	<16.1 35.7 J	<17.9 48.7 J	<16.8 156
	PCBs - Aroclor 1254 PCBs - Aroclor 1260	1,000	N/A N/A	ug/kg ug/kg	35.0 J 32.2 J	25.4 J <16.7	<16.1	38.8 J	<16.8
	1-Methylnaphthalene	72,700	N/A	ug/kg	26.1	<26.8	67.0	61.6 J	266
	2-Methylnaphthalene	3,010,000	N/A	ug/kg	35.8	<26.9	77.3	73.2 J	387
	Acenaphthene	45,200,000	N/A	ug/kg	5.8 J	<23.8	8.8 J	54.3 J	12.4 J
	Acenaphthylene Anthracene	N/A 100,000,000	N/A 196,949	ug/kg	37.2	111 J 291	32.2 J 28.3 J	159 J 391	21.1 J 34.1 J
	Anthracene Benzo(a)anthracene	20,800	196,949 N/A	ug/kg ug/kg	32.7 100	490	28.3 J 113	776	78.4
	Benzo(a)pyrene	2,110	470	ug/kg	166	546	152	926	96.9
	Benzo(b)fluoranthene	21,100	478.1	ug/kg	186	746	231	1060	141
EPA 8270	Benzo(ghi)perylene	N/A	N/A	ug/kg	96.3	263	130	563	85.1
PAHs	Benzo(k)fluoranthene	211,000	N/A	ug/kg	92.0 114	293 546	87.8 150	466 860	49.3
	Chrysene Dibenzo(a,h)anthracene	2,110,000 2,110	144.2 N/A	ug/kg ug/kg	22.8	77.2 J	29.5 J	162 J	109 18.5 J
	Fluoranthene	30,100,000	88,878	ug/kg	142	1240	257	1670	150
	Fluorene	30,100,000	14,830	ug/kg	5.4 J	56.4 J	17.3 J	130 J	27.0 J
	Indeno(1,2,3-cd)pyrene	21,100	N/A	ug/kg	84.4	251	105	488	57.5
	Naphthalene Phenanthrene	24,100 N/A	658.2 N/A	ug/kg ug/kg	31.8 49.5	29.4 J 849	71.2 114	82.5 J 1020	355 199
	i nenanunciie	22,600,000	54,546	ug/Kg	152	854	184	1290	110

- < = Parameter not detected at or above the laboratory detection limit shown.
- J = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ).

N/A = Not availableNT = Not Tested

VOC = Volatile organic compound

TCLP = Toxicity characteristic leaching procedure

PAH = Polycyclic aromatic hydrocarbons

- $\slash ttp://pubs.usgs.gov/sir/2011/5202$  . See also WDNR Publication RR-940.

 $pw:\label{pw:lambda} Purine \label{pw:lambda} wheno \label{pm:lambda} Description \label{pm:lambda} Table 2 B34-B35 Soil WI RCLs. xlsx \ B34-B35 Soil (3)$ 

Prepared by: RLP1 Checked by: RJM7

### **September 29, 2020 Groundwater Analytical Results**

### **B34/B35 Supplemental Investigation**

# Fincantieri Marinette Marine Marinette, Wisconsin

		WDNR	NR 140				Sam	ple ID		
Par	rameter	PAL	ES	Units	GP-1W	GP-3W	GP-4W	GP-4W-D	GP-6W	GP-W-ER
T at	Benzene	0.5	5	μg/L	3.4	2.5	< 0.25	<0.25	<0.25	NT
	Chlorobenzene	20	100	μg/L	2.0 J	0.74 J	< 0.71	< 0.71	< 0.71	NT
	n-Butylbenzene	N/A	N/A	μg/L	<0.71	5.3	<0.71	<0.71	<0.71	NT
	sec-Butylbenzene tert-Butylbenzene	N/A N/A	N/A N/A	μg/L μg/L	<0.85 <0.30	1.6 J 1.3	<0.85 <0.30	<0.85 <0.30	<0.85	NT NT
EPA 8260	Naphthalene	10	100	μg/L μg/L	<1.2	2.9 J	<1.2	<1.2	<1.2	NT
Detected VOCs	Toluene	160	800	μg/L	0.66 J	< 0.27	< 0.27	< 0.27	< 0.27	NT
	1,2,4-Trimethylbenzene	96	480	μg/L	< 0.84	3.4	< 0.84	< 0.84	< 0.84	NT
	1,3,5-Trimethylbenzene		.00	MS E	<0.87	< 0.87	< 0.87	<0.87	< 0.87	NT
	m&p-Xylene o-Xylene	400	2,000	μg/L	0.65 J 0.39 J	<0.47 <0.26	<0.47 <0.26	<0.47 <0.26	<0.47 <0.26	NT NT
	Arsenic (total)	1	10	7	28.9	115	8.7	8.1	168	NT
	Arsenic (dissolved)	1	10	μg/L	25.1	114	9.9	10	169	NT
	Barium (total)	400	2000	μg/L	736	708	102	95.6	1850	NT
	Barium (dissolved)			F8 2	720	694	116	120	1880	NT
	Cadmium (total) Cadmium (dissolved)	5	0.5	μg/L	2.6 J 1.5 J	<0.76	<0.76	<0.76 <0.76	<0.76	NT NT
	Chromium (total)				6.4 J	2.4 J <5.1	<0.76 <5.1	<5.1	<5.1	NT
	Chromium (dissolved)	10	100	μg/L	<5.1	<5.1	<5.1	<5.1	<5.1	NT
EPA 6020 Metals	Copper (total)	130	1300	μg/L	<9.5	<9.5	<9.5	<9.5	<9.5	NT
121 A UUZU MICIAIS	Copper (dissolved)	130	1500	MS/L	<9.5	<9.5	<9.5	<9.5	<9.5	NT
	Lead (total) Lead (dissolved)	1.5	15	μg/L	8.1 4.0 J	3.7 J 3.0 J	<1.2 <1.2	<1.2 <1.2	<1.2 <1.2	NT NT
	Selenium (total)			_	3.5 J	<1.6	<1.6	<1.2	<1.2	NT
	Selenium (dissolved)	10	50	μg/L	2.7 J	3.2 J	<1.6	<1.6	<1.6	NT
	Silver (total)	10	50	μg/L	1.3 J	< 0.64	< 0.64	< 0.64	< 0.64	NT
	Silver (dissolved)	10	30	μg/L	0.88 J	1.3 J	< 0.64	< 0.64	< 0.64	NT
	Zinc (total)	2500	5,000	μg/L	<51.6	<51.6	281 241	254	<51.6	NT
	Zinc (dissolved) Mercury (total)				<51.6 <0.066	<51.6 <0.066	< 0.066	<0.066	<51.6 <0.066	NT NT
EPA 7470	Mercury (dissolved)	0.2	2	μg/L	<0.066	<0.066	<0.066	<0.066	<0.066	NT
	alpha-BHC	N/A	N/A	μg/L	0.017 J	< 0.0065	< 0.0064	< 0.0064	< 0.0067	NT
	beta-BHC	N/A	N/A	μg/L	0.019 J	0.022 J	< 0.010	< 0.010	< 0.011	NT
	alpha-Chlordane	N/A	N/A	μg/L	0.010 J	< 0.0059	< 0.0058	< 0.0058	< 0.0060	NT
EPA 8081 Detected Pesticides	Endosulfan I	N/A	N/A	μg/L	0.011 J	0.022 J	< 0.0072	< 0.0072	< 0.0075	NT
	Endrin ketone	N/A	N/A	μg/L	0.055 J	< 0.025	< 0.025	< 0.025	< 0.026	NT
	PCBs - Total	0.003	0.03	μg/L	<0.11	<0.11	<0.11	<0.11	<0.11	NT
	PCBs - Arcelor 1016	N/A	N/A	μg/L	<0.11	<0.11	<0.11	<0.11	<0.11	NT NT
	PCBs - Aroclor 1221 PCBs - Aroclor 1232	N/A N/A	N/A N/A	μg/L μg/L	<0.11 <0.11	<0.11	<0.11	<0.11 <0.11	<0.11	NT
EPA 8082	PCBs - Aroclor 1242	N/A	N/A	μg/L	<0.11	<0.11	<0.11	<0.11	<0.11	NT
	PCBs - Aroclor 1248	N/A	N/A	μg/L	<0.11	<0.11	<0.11	<0.11	<0.11	NT
	PCBs - Aroclor 1254	N/A	N/A	μg/L	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	NT
	PCBs - Aroclor 1260	N/A	N/A	μg/L	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	NT
	1-Methylnaphthalene	N/A	N/A	μg/L	0.53	1.1	<0.0057	< 0.0057	0.0096 J	NT
	2-Methylnaphthalene	N/A	N/A	μg/L	0.55	2.4	0.0051 J	0.0061 J	<0.0047	NT
	Acenaphthene Anthracene	N/A	N/A	μg/L	0.19	0.060	<0.0058	<0.0059 <0.010	0.010 J <0.010	NT
EPA 8270	Anthracene Fluoranthene	600 80	3,000 400	μg/L μg/L	0.020 J 0.022 J	0.018 J 0.033 J	<0.010	<0.010	<0.010	NT NT
<b>Detected PAHs</b>	Fluorene	80	400	μg/L μg/L	0.022 3	0.033 J	<0.010	< 0.010	0.0082 J	NT
	Naphthalene	10	100	μg/L	0.29	1.9	< 0.018	< 0.018	0.021 J	NT
	Phenanthrene	N/A	N/A	μg/L	0.14	0.12	< 0.013	< 0.013	< 0.013	NT
	Pyrene	50	250	μg/L	0.018 J	0.035 J	< 0.0074	< 0.0074	0.0093 J	NT
	PFOA	2*	20*	ng/L	500	300	100	110	110	< 0.79
	PFOS	2*	20*	ng/L	90	54	390	380	44	<0.50
	PFBS PFBA	N/A N/A	N/A N/A	ng/L ng/L	7.1 93	7.1 160	4.0 320	4.2 330	6.2 95	<0.19
	PFPeA	N/A N/A	N/A N/A	ng/L ng/L	190	620	1100	1100	260	<0.46
	PFHxA	N/A	N/A	ng/L	200	520	810	820	250	<0.54
	PFHpA	N/A	N/A	ng/L	140	200	220	220	130	< 0.23
	PFNA	N/A	N/A	ng/L	14	8.3	53	54	21	<0.25
MODIEIER ER	PFDA	N/A	N/A	ng/L	1.7 J	<0.27	38	36	0.62 J	<0.29
MODIFIED EPA 537 Detected PFAS	PFUnA PFDoA	N/A N/A	N/A N/A	ng/L ng/L	<1.0 <0.50	<0.97 <0.48	3.2 1.9	3.1 2.0	<0.96 <0.48	<1.0 <0.51
55/ Detected PFAS	PFPeS	N/A N/A	N/A N/A	ng/L ng/L	9.0	7.9	2.6	3.2	<0.48 1.2 J	<0.51
537 Detected PF AS	PFHxS	N/A	N/A	ng/L ng/L	150	150	89	93	28	<0.53
	PFHpS	N/A	N/A	ng/L	4.3	3.2	4.7	4.5	2.6	<0.18
	FOSA	N/A	N/A	ng/L	31	< 0.86	1.5 J	1.4 J	< 0.86	< 0.91
	NMeFOSAA	N/A	N/A	ng/L	2.6 J	<1.1	<1.1	<1.1	<1.0	<1.1
	NEtFOSAA	N/A	N/A	ng/L	6.0	11	<1.2	<1.2	2.9 J	<1.2
	4:2 FTS - DL 6:2 FTS - DL	N/A N/A	N/A N/A	ng/L ng/L	<22 380 J	<21 440	<0.22	<0.23 6.1	2.2 J 98	<0.22 <2.3
	8:2 FTS - DL	N/A N/A	N/A N/A	ng/L ng/L	<42	<41	0.0 0.90 J	0.1 0.96 J	20	<0.43
Notes:							2.200			.55

WDNR PAL = Wisconsin Dept. of Natural Resources NR 140 Preventive Action Limit. WDNR ES = Wisconsin Dept. of Natural Resources NR 140 Enforcement Standard.

< = Parameter not detected at or above the laboratory detection limit shown.

J = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ).

\* = Recommended Standard. Currently standards are N/A.

N/A = Not available

NT = Not Tested

VOC = Volatile organic compound

PAH = Polycyclic aromatic hydrocarbons

PAH = Polycyclic aromatic hydrocarbons PCB = Polychlorinated biphenyls

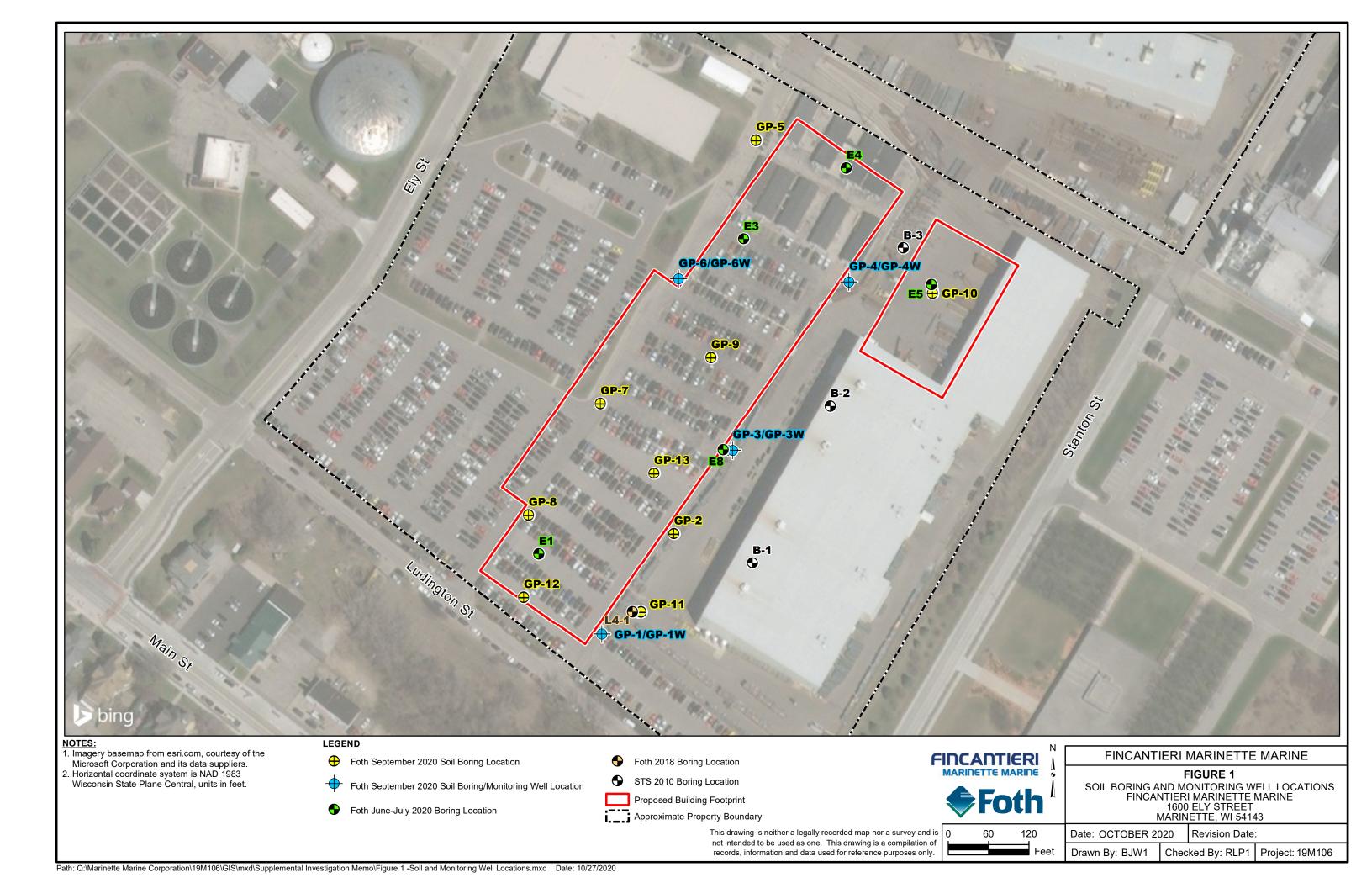
PFAS = Per- and polyfluoroalkyl substance

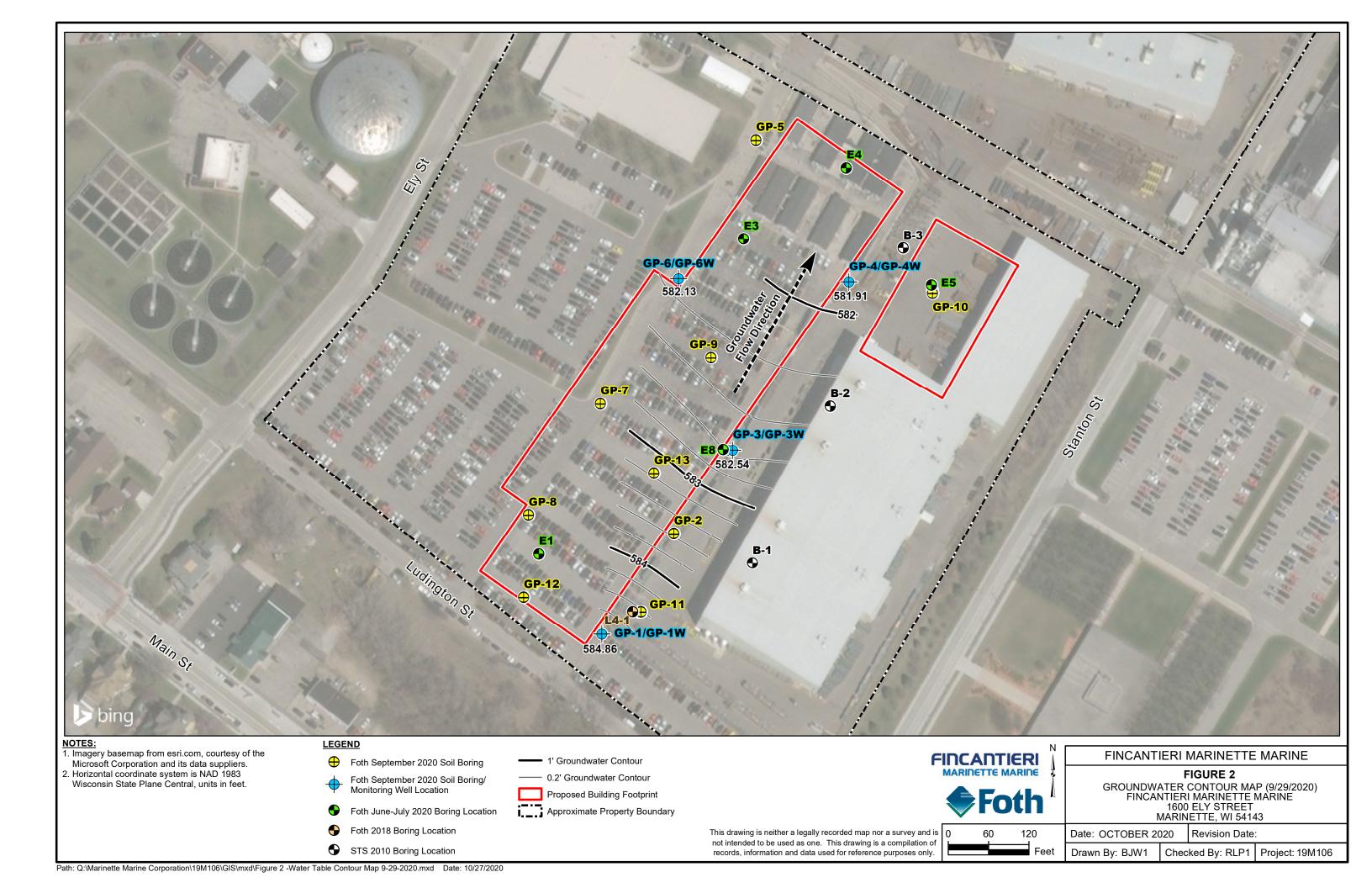
PFOA = Perfluorooctanoic acid

PFOS = Perfluorooctanesulfonic acid

= Concentration above WDNR ES. 8.1 = Concentration above WDNR PAL. Prepared by: RLP1 Checked by: RJM7

### **Figures**





### **Attachment 1**

### **Boring Logs**

# BORING NUMBER GP-1 PAGE 1 OF 1

Foth
Util

CLI	I <b>ENT</b> Fir	ncantieri Marinette Marine	PROJEC <sup>*</sup>	T NAME	B34-E	335 Suppler	nental Yard Iı	nvestiga	ation			
	· ·	UMBER _19M106.20				Marinette, W		···				
- 1		RTED 9/23/20					VD 88 HOLE	SIZE	8 incl	hes		
DR	ILLING C	CONTRACTOR Horizon Construction & Exploration	struction & Exploration GROUND WATER LEVELS:									
DR	ILLING N	IETHOD Macro-Core (MC)/HSA	AT	TIME OF	DRILI	LING						
LO	GGED B	Y RLP1 CHECKED BY RJM7	AT	END OF	DRILL	.ING						
NO	TES WI	_ @ time of drilling < 5'.	AF	TER DRI	LLING							
									N CDT	N \/A	LUE 🛦	
DEPTH		MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	20 1 20	) 4 PL  ) 4 NES (	$ \begin{array}{ccc} 0 & 6 \\ \hline MC \\ -0 & 6 \end{array} $ CONTE	60 8 LL <del>1</del> 60 8 ENT (%	80 80 %) □
0.0	)	Asphalt.						20	) 4	0 6	30 8	<u>0</u> :
-		(FILL), Dk. gray brown (10YR 4/2) gravelly f. to c. sand, tr (FILL), V. dk. gray (10YR 3/3) f. sand w/gravel and silt, m										
		(FILL) Consider the constant of the constant o		11								<u>:</u>
		(FILL), Grayish brown (10YR 5/2) f. gravelly f. to m. sand moist.	, tr. Siit,									
교 일 2.5	5			МС								
S90	$\overline{}$	(FILL), Dk. gray (10YR 4/1) f. sand w/gravel and silt, mois No recovery.	st	1	52				•••••			
ARD L		No receivery.							••••			
AND	-			И					•••••			<u>:</u>
TS -	-								•••••			 !
P1/D0454681/FMM YARD GEOTECH GINT STANDARD LOGS. GPJ	-											
当 <u>5.0</u>	) <del>                                     </del>	PID composite field screen of 0.2 - 5' interval = 2.3 ppm							•••••		:	<u>.</u>
8	-	(FILL), Grayish brown (10YR 5/2) silty f. sand, wet. PID = 1.8 ppm	<i>~</i> -									
- YAR		(FILL), Dk. gray (10YR 4/1) f. sand w/silt and gravel, wet.									<u>:</u>	<u>:</u>
TEM T											<u>.</u>	<u>.</u>
15468										:		<u>:</u> :
7.	5	(SP) V. dk. grayish brown (10YR 3/2) f. SAND, wet.		МС	48							<u>.</u>
		No recovery.		2	40							
M M				И								
S C C	1			H								
WOR!				П				:	••••			
M 10	_								•••••			<u>:</u>
5 10.		(SM) V. loose, v. dk. grayish brown (10YR 3/2) silty f. SAI							•••••			
0 14:1	+ 11	gravel, wet. Plastic bag fragment in cuttings.										ļ
10/8/2	-			M					••••			
<u>-</u>	-			И					••••		:	
US.G	-										<u>:</u>	<u>:</u>
12.	5	<u> </u>		MC	50							<u></u>
GINT		No recovery.		3								
OTS.												<u>.</u>
표				H					- 1			
SH.	1							:				
GEOTECH BH PLOTS - GINT STD US. GDT - 108/20 14:12 - C. PW. WORKDIRIPW_EIRL 10										:		:
<b>쁑 15</b> .	.U I	I .		1 1	1	İ	I .			•		

### **BORING NUMBER GP-2**

PAGE 1 OF 1

<b>A</b>	
	Foth

CLIEN	<b>NT</b> Fin	ncantieri Marinette Marine	PROJEC1	NAME	B34-E	35 Supplem	ental Yard I	nvestigation			
		UMBER 19M106.20	PROJECT LOCATION Marinette, WI								
		TED 9/24/20	GROUND ELEVATION 588.1 ft NAVD 88 HOLE SIZE 2 inches								
		ONTRACTOR Horizon Construction & Exploration									
DRILL	ING M	ETHOD Macro-Core (MC)	AT TIME OF DRILLING								
LOGG	SED BY	RLP1 CHECKED BY RJM7	AT	END OF	DRILL	ING					
NOTE	S WL	. @ time of drilling > 4.5'.	AF.	TER DRI	LLING						
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	A SPT N VALUE A  20 40 60 80  PL MC LL  20 40 60 80  □ FINES CONTENT (%) □  20 40 60 80			
		Asphalt.									
  - 1 		(FILL), Dk. grayish brown (10YR 4/2) gravelly f. to m. sand, t moist.  (FILL), Brown (10YR 5/3) and dk. grayish brown (10YR 4/2) to m. sand, tr. silt, moist.									
_											
Ĺ		(FILL), Lt. y. brown (10YR 4/4) f. sand, moist. PID composite field screen of 0.2 - 2' interval = 3.8 ppm									
2											
		(FILL), V. dk. grayish brown (10YR 3/2) f. sand w/silt, tr. to fe moist. PID = 3.0 ppm	ew gravel,	MC 1	60						
-		No recovery.									
3											
-											
<u> </u>											
4											
								ļ			
	IXXXXI	Bottom of borehole at 4.5 feet.						<u> </u>			

# BORING NUMBER GP-3 PAGE 1 OF 1

<b>A</b>		
		-
	rotn	
		L

CLIE	NT Fin	cantieri Marinette Marine	PROJECT	NAME	B34-E	35 Suppleme	ntal Yard I	nvestigation		
PROJ	IECT N	JMBER _19M106.20	PROJECT	LOCAT	ION N	Marinette, WI				
DATE	STAR	TED 9/24/20	GROUND	ELEVA	TION _	587.4 ft NAVE	88 <b>HOLE</b>	SIZE 8 inches	<u> </u>	
DRILI	LING C	ONTRACTOR Horizon Construction & Exploration	GROUND	WATER	LEVE	LS:				
DRILI	LING M	ETHOD Macro-Core (MC)/HSA	AT '	TIME OF	DRILL					
LOGG	GED BY	RLP1 CHECKED BY RJM7	AT	END OF	DRILL	ING				
NOTE	S WL	@ time of drilling approx. 4.5'.	AFT	ER DRI	LLING					
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	20 40 PL N	IC LL →	80 80 %) □
		Asphalt.								:
		(FILL), Brown (10YR 4/3) gravelly f. to c. sand w/silt, moist.  (FILL), V. dk. gray brown (10YR 3/2) f. to m. sand w/silt, tr. gmoist.  (FILL), V. dk. grayish brown (10YR 3/2) f. sand w/silt, tr. grayish brown (10YR 3/2) f. sand w/silt w/								:
		fragments, organic odor, moist.  No recovery.		MC 1	55					
5 2.5 S		No recovery.								:
GEOTECH BH PLOTS - GINT STD US GDT - 108/20 14:12 - C:VPW WORKDIRPW IE/RLP 1/D045468   FMM YARD GEOTECH GINT STANDARD LOGS. GPJ										:
I A A		_ PID composite field screen of 0.1 - 4' interval = 2.8 ppm								:
ω - - -		(FILL), V. dk. grayish brown (10YR 3/2) f. sand w/silt, tr. gra	vel and							:
위 · ·		blackened wood (lower 1'), organic odor, moist to wet. PID = 7.1 ppm								! · · · · · · · · · · · · · · · · · · ·
<u> 5.0</u>	₩	1 15 – 7.1 ррш								······
5 -	$\bowtie$	No recovery.								<u>.</u>
ΑΑ.		No receivery.								<u>:</u>
₩ ₩ 				MC	30					<u>:</u> :
24681				2						<u>:</u>
7.5										
Z Z	1									! · · · · · · · · · · · · · · · · · · ·
<u>-</u> ≥	1									
	-									
剂 -		(SP-SM) Black (10YR 2/1) f. SAND w/silt, tr. f. gravel, petrol								<u>:</u>
<u></u>  - 		product odor and sheen, wet.	Cum							<u>.</u>
10.0		PID = 108 ppm								<u></u>
1:12		(SP) V. dk. gray (10YR 3/1) f. to m. SAND, tr. silt, diminishe								
20 1,		petroleum product odor, wet.	G tO NO							:
10/8		PID = 24 ppm		N40					:	!·····
- db				MC 3	54					
SD C		No recovery.								<u></u>
12.5										
<u>                                     </u>										<u></u>
STO: -	]							ļ		
郑L 교										<u>:</u>
H.		Bottom of borehole at 14.0 feet.								
SEOTE										

# BORING NUMBER GP-4 PAGE 1 OF 1

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CLIEN	IT Ei	poentieri Merinette Merine	PROJECT NAME B34-B35 Supplemental Yard Investigation								
1			PROJECT LOCATION Marinette, WI								
1								SIZE 8 inches			
1			ROUND				<u>D o</u> o <b>noll</b>	OILL OTHERS			
1		IETHOD Macro-Core (MC)/HSA				_g. _ing					
		/ RLP1 CHECKED BY RJM7				ING					
1		. @ time of drilling approx. 5'.		TER DRI		<u></u>					
HOIL	<u> </u>	E & unite of drining approx. 5.	A .								
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	A SPT N VALUE A  20 40 60 80  PL MC LL  20 40 60 80  □ FINES CONTENT (%) □			
0.0	XXXX	/EILL) Proup (10VP 5/2) f cond w/ailt and f group! tr to faw a	oond	_				20 40 60 80			
2.5		(FILL), Brown (10YR 5/3) f. sand w/silt and f. gravel, tr. to few c. dry.  (FILL), V. dk. gray (10YR 3/1) silty f. sand, moist.  (FILL), Pale brown (10YR 6/3) and brown (10YR4/3) f. sand, dry  No recovery.		MC 1	65						
5.0		(FILL), Pale brown (10YR 6/3) f. sand, dry to wet.  (SM) Brown (7.5YR 4/4) silty f. SAND, wet.									
7.5		(SP-SM) Dk. gray (10YR 4/1) f. SAND w/silt, wet.		MC 2	70						
  -  -  -  -  -		No recovery.									
5 10.0 5		(SP-SM) Dk. gray (10YR 4/1) f. SAND, tr. silt to f. SAND w/silt, v	wet.	MC 3	90						
<u></u> }		(SM) Dk. brown (7.5YR 3/3) silty f. SAND, wet.									
12.5		(SP-SM) Brown (10YR 5/3) f. SAND w/silt, wet.									
		(SP) F. to m. SAND, few f. gravel, wet.  No recovery.									
i		Bottom of borehole at 14.0 feet.									
		BORROTTI OI DOI GITOTE AL 14.0 TEEL.									

### BORING NUMBER GP-5

		Fo	oth						PAGE 1 OF 1			
	CLIEN	NT Fin	ncantieri Marinette Marine	PROJECT	NAME	B34-E	335 Supplem	ental Yard I	nvestigation			
	PROJ	ECT N	UMBER _19M106.20	PROJECT	LOCAT	ION _	Marinette, WI					
	DATE	STAR	TED 9/24/20 COMPLETED 9/24/20	GROUND	ELEVA	TION _	587.5 ft NAV	'D 88 <b>HOLE</b>	SIZE 2 inches			
	DRILL	LING C	ONTRACTOR Horizon Construction & Exploration	GROUND	WATER	LEVE	LS:					
	DRILL	LING M	ETHOD Macro-Core (MC)	AT	TIME OF	DRILI	LING					
	LOGG	SED BY	CHECKED BY RJM7	AT	END OF	DRILL	.ING					
	NOTE	NOTES WL @ time of drilling > 4'.			AFTER DRILLING							
	, DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	A SPT N VALUE A 20 40 60 80  PL MC LL 20 40 60 80  □ FINES CONTENT (%) □			
	0		Asphalt.		1				20 40 60 80			
		XXXX	(FILL), Brown (10YR 5/3) gravelly f. to c. sand, tr. silt, moist.									
			(FILE), DIOWIT (1011C 0/0) gravelly 1. to c. sand, tr. siit, most.									
				-,,								
			(FILL), Dk. grayish brown (10YR 4/2) f. sand w/silt, tr. f. grave	el, moist.								
GPJ	1											
OGS.												
RD L												
ANDA	_		 									
IT ST,			(FILL), Gravel.									
HGIN			(FILL), V. dk. grayish brown (10YR 3/2) silty f. sand, moist.									
TEC	2	$\longrightarrow$			MC 1	53						
GEC			No recovery.									
YAR		$\bowtie$										
FMM												
4681\												
D045	 3											
RLP1												
V_IE\F	-											
IR/PV		₩							ļ <u>.</u>			
JRKD		+										
N N		$\longrightarrow$	DID comments field comments 6.00 Altinomy I .00 comme									
- C:PW_WORKDIR\PW_IE\RLP1\D0454681\FMM YARD GEOTECH GINT STANDARD LOGS.GPJ	4	$\bowtie$	PID composite field screen of 0.2 - 4' interval = 3.0 ppm									
4:12 -			Bottom of borehole at 4.0 feet.									
8/20 1												
10/												
GDT.												
ED OIS												
NT S												
GEOTECH BH PLOTS - GINT STD US.GDT - 10/8/20 14:12												
2LOT:												
HH.												
TECH												
GEO												

# BORING NUMBER GP-6 PAGE 1 OF 1



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CLIEN	<b>T</b> Fir	ncantieri Marinette Marine	PROJECT	NAME	B34-E	335 Supplem	ental Yard I	nvestigation			
PROJE	ECT N	UMBER 19M106.20	PROJECT	LOCAT	TION _N	Marinette, WI					
DATE	STAR	TED <u>9/23/20</u>	GROUND	ELEVA	TION _	588.3 ft NAV	D 88 <b>HOLE</b>	SIZE 8 inches			
DRILL	ING C	ONTRACTOR Horizon Construction & Exploration	GROUND	WATER	LEVE	LS:					
DRILL	ING M	ETHOD Macro-Core (MC)/HSA	AT	TIME O	F DRILI	LING					
LOGG	ED BY	RLP1 CHECKED BY RJM7	AT END OF DRILLING								
NOTES	s WL	. @ time of drilling < 5'.	AFTER DRILLING								
								▲ SPT N VALUE ▲			
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	20 40 60 80			
	XXXX	Asphalt.									
	XXX	(FILL), Dk. y. brown (10YR 4/4) gravelly f. to m. sand, moist.									
		(FILL), Dark gray (10YR 4/1) and black (10YR 2/1) f. to m. saw/gravel, tr. organics in lower 0.2', drywall fragment, yellowish speckling near bottom, moist.	and h	M							
	XXX	(FILL), Brown wood chunk in tip, sl. weathered, moist.									
2.5	XXX	No recovery.		МС							
	XXX			1	36						
	XXX										
}	XXX							ļ			
	XXX										
	XXX										
5.0	XXX	DID " " " I I I I O O O O O O O O O O O O O		1							
0.0	XXX	<ul> <li>PID composite field screen of 0.2 - 5' interval = 3.6 ppm</li> <li>(FILL), V. dk. gray (10YR 3/1) f. to m. sand w/gravel and silt,</li> </ul>									
╟╶┤	$\ggg$	Fiberboard piece in HSA cuttings.	Wot.								
-	XXX										
		(ML) Black (10YR 2/1) f. sandy SILT, few organics, moist.									
		No recovery.									
7.5				МС							
1.0				2	32						
<u> </u>											
-											
<u> </u>											
10.0											
!		(SM) V. loose, v. dk. gray (10YR 3/1) silty f. SAND, organics,	wet.								
	.: [::]::] 	(ML) Soft, v. dk. gray (10YR 3/1) SILT, tr. f. sand, moist.									
-		(,, 9, (,,									
; <b>-</b> -											
		(SP-SM) V. dk. grayish brown (10YR 3/2) f. SAND w/silt, wet	t. — — —								
12.5				мс	50						
		No recovery.		3	30						
<u> </u>											
<u>i</u>											
<u> </u>								ļ <u>.</u>			
15.0											

# BORING NUMBER GP-7 PAGE 1 OF 1

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1			ncantieri Marinette Marine				335 Supplem		nvestigation				
1			UMBER 19M106.20				Marinette, W						
1			TED _9/24/20					<u>/D 8</u> 8 <b>HOLE</b>	SIZE 2 inches				
			ONTRACTOR Horizon Construction & Exploration	GROUND									
1			ETHOD Macro-Core (MC)	AT TIME OF DRILLING  AT END OF DRILLING									
1			Market Market CHECKED BY RJM7  @ time of drilling > 5'.	AFTER DRILLING									
L	OIE	S VVL	. Warne or drining > 5.	АГ	I EK DKI	LLING							
	O (ff)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	A SPT N VALUE A  20 40 60 80  PL MC LL  20 40 60 80  □ FINES CONTENT (%) □  20 40 60 80				
	0		Asphalt.						: : : :				
-	-		(FILL), Grayish brown (10YR 5/2) gravelly f. to m. sand, tr. si	lt, moist.									
3 -													
	-		(FILL), Dk. grayish brown (10YR 4/2) f. sand, tr. f. gravel, dry	<del>,</del>									
	-		(FILL), Grayish brown (10YR 5/2) silty f. sand, tr. gravel, moi	 st.									
- GEO LEG	2 -		(FILL), Grayish brown (10YR 5/2) f. sand, moist.										
1 1 1	-		(FILL), V. dk. grayish brown (10YR 3/2) f. sand w/silt, moist.		MC 1	56							
-	3		No recovery.										
	_												
רואקסעעט רואקסעעט רואקסעעט	-												
<u></u>	-								ļ <u>.</u>				
_ أَ	4												
70,20	-												
	_												
15.6	_												
	5		PID composite field screen of 0.3 - 5' interval = 3.2 ppm										
פבסובסון מון דרסוס - סומי			Bottom of borehole at 5.0 feet.										

							ODING	<b>.</b>	DED	<u> </u>	
	Fo	th				В	SORING	i NUIVI		<b>GP-8</b> 1 OF 1	
CLIE	NT Fir	ncantieri Marinette Marine	PROJEC	Γ NAME .	B34-E	35 Supplen	nental Yard I	nvestigation	1		
PRO.	JECT N	UMBER 19M106.20	PROJEC	LOCAT	ION _	//arinette, W	/I				
DATI	E STAR	TED 9/24/20 COMPLETED 9/24/20	GROUNE	ELEVAT	TION _	589.9 ft NA	<u>VD 8</u> 8 <b>HOLE</b>	<b>SIZE</b> 2 in	ches		
DRIL	LING C	ONTRACTOR Horizon Construction & Exploration	GROUND WATER LEVELS:								
DRIL	RILLING METHOD Macro-Core (MC)		AT TIME OF DRILLING								
		' RLP1 CHECKED BY RJM7									
NOTI	ES		AF	TER DRII	LING						
				H	%		-	▲ SF	PT N VAL		
H E	GRAPHIC LOG	MATERIAL RECORDERS		SAMPLE TYPE NUMBER	RECOVERY 9 (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	20 PL	MC	80 LL	
DEPTH (ft)	, AR O	MATERIAL DESCRIPTION		APL.E	SOV (RC	BLC SOUI	5 5	20	_ <del>_</del> <del>_</del> <del>_</del> <del>_</del> <del>_</del> <del>_</del> 60	<b>- ₁</b> 80	
				SAN	RE(	٥٤	DR	☐ FINES		NT (%) □	
0.0		Asphalt.						20 :	40 60 : :	<u>80</u> :	
	XXXX	(FILL), Dk. brown (10YR 3/3) gravelly f. to m. sand, tr. silt, n	sciot								
-	-	(FILL), DK. Drown (101R 3/3) gravery i. to m. sand, tr. siit, n	IOISt.								
<u> </u>		(FILL), V. dk. gray (10YR 3/1) f. sand w/silt to silty f. sand, fe	 ew f.					<u> </u>			
S.GP		gravel,dry.									
DARU T								······			
STAN											
RD GEOTECH GINT STANDARD LOGS.GPJ	-	(FILL), Pale brown (10YR 6/3) f. sand w/silt, dry.						····· <del>·</del>			
EGH											
2.5		(FILL), Gray (10YR 6/1) f. sandy silt, tr. f. gravel, moist.							;;		
		(FULL) \ / dic grapials brains (10VD 3/2) ailty f good ainder l									
IRKDIRIPW_IEVRLP1/D0454681/FMM YA		(FILL), V. dk. grayish brown (10YR 3/2) silty f. sand, cinder l metal fragments, moist.	orick and							•	
681/F		No recovery.		MC							
00454				1	46						
	-										
R P											
Ž O											

GEOTECH BH PLOTS - GINT STD US GDT - 10/8/20 14:12 - C.PW\_WO 5.0 PID composite field screen of 0.3 -6.5' interval = 4.0 ppm

Bottom of borehole at 6.5 feet.

# BORING NUMBER GP-9 PAGE 1 OF 1

Foth	

	CLIENT Fincantieri Marinette Marine			PROJECT NAME B34-B35 Supplemental Yard Investigation								
	PROJ	ECT N	IUMBER 19M106.20	PROJEC	T LOCAT	TION _N	Marinette, W					
	DATE	STAF	RTED _9/24/20	GROUNE	ELEVA	TION _	587.5 ft NAV	'D 88 <b>HOLE</b>	SIZE 2 inc	hes		
	DRILI	LING C	CONTRACTOR Horizon Construction & Exploration	GROUNE	WATER	LEVE	LS:					
	DRILI	LING N	METHOD Macro-Core (MC)		TIME O	F DRILI						
- 1			Y RLP1 CHECKED BY RJM7				·					
L	NOTE	S <u>W</u>	L @ time of drilling > 4'.	AF	TER DRI	LLING			I			
	O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	20 4 PL 20 4	10 60	80 LL 1 80 NT (%) $\Box$	
Γ			Asphalt.									
ORKDIRIPW_IE/RLP1/00454681/FMM YARD GEOTECH GINT STANDARD LOGS.GPJ	- 1		(FILL), Y. brown (10YR 5/4) gravelly f. to m. sand, tr. silt, model (FILL), Dk. grayish brown (10YR 4/2) f. sand w/silt, tr. f. gravelly f. sand, tr. silt, of (FILL), Lt. brownish gray (10YR 6/2) gravelly f. sand, tr. silt, of (FILL), Brown (7.5YR 5/3) f. sand, dry.  (FILL), Blackened wood layer (0.5") over v. dk. grayish brown 3/2) f. sand, tr. silt moist.  No recovery.	el, moist.	MC 1	58						
V_WQ\:	1		PID composite field screen of 0.2 - 4' interval = 2.6 ppm						<del>-</del>			
12 - C	4	<u>wxxx</u>	Bottom of borehole at 4.0 feet.						Li	<u></u>		
GEOTECH BH PLOTS - GINT STD US.GDT - 10/8/20 14:12 - C:\PW_WORKDIR\PW_IE'												

# BORING NUMBER GP-10 PAGE 1 OF 1

		Fo	oth				50	14.110	. (02	PAG	E 1 C	)F 1		
	CLIEN	<b>NT</b> Fin	ncantieri Marinette Marine	PROJEC	T NAME	B34-E	35 Supplem	ental Yard Ir	nvestigation	1				
	PROJ	ECT N	UMBER 19M106.20	PROJEC	T LOCAT	ON N	/larinette, WI							
	DATE	STAR	TED 9/23/20 COMPLETED 9/23/20	GROUNE	ELEVA1	TION _	587.4 ft NAV	D 88 <b>HOLE</b>	SIZE 2 in	ches				
	DRILL	ING C	ONTRACTOR Horizon Construction & Exploration	GROUNE	WATER	LEVE	LS:							
- 1			ETHOD Macro-Core (MC)		TIME OF	DRILI								
- 1			CHECKED BY RJM7				ING							
	NOTE	S WL	_ @ time of drilling > 4'.	AF	AFTER DRILLING									
	MATERIAL DESCRIPTION  O  Asphalt.				SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	A SPT N VALUE A  20 40 60 80  PL MC LL  20 40 60 80  □ FINES CONTENT (%) □					
-	0		Asphalt.						20 :	40 6	0 8	0		
$\mid$	-		'								<u>.</u>			
ŀ			(FILL), Dk. gray (10YR 4/1) gravelly f. to c. sand w/silt, moist	t.	11						<u>.</u>			
ŀ		+			Ш						<u>:</u>	<u>.</u>		
L											<u>:</u>			
GPJ	1	$\bowtie$	(FILL), Dk. grayish brown (10YR 4/2) silty f. sand, tr. f. grave	el, moist.							<u>:</u>	<u>:</u>		
FOGS					Ш						<u>:</u> 	<u>:</u>		
ARD										:	:	:		
TAND	-													
GINTS	-													
			(FILL), V. dk. gray (10YR 3/1) f. to m. sand w/silt, tr. gravel,	moist.	1						÷······ :	!······		
EOTECH	2				MC 1	58					 	<u>.</u>		
RD G	-										 :			
¥⊢			No recovery.						<u>:</u>		<u>:</u>	: :		
81/FM		₩												
94546											<u>.</u>	<u></u>		
2	3	$\bowtie$			Ш						<u>.</u>			
影											<u>:</u>	<u></u>		
Μ M M												<u>.</u>		
Z Z											<u>:</u>			
Ō N_											<u>:</u> 	<u>:</u>		
MA M	4		PID composite field screen of 0.3 - 4' interval = 1.9 ppm								:	:		
12 - (			Bottom of borehole at 4.0 feet.		. •									
SEOTECH BH PLOTS - GINT STD US.GDT - 10/8/20 14														

### **BORING NUMBER GP-11**

PAGE 1 OF 1

	CLIEN	<b>IT</b> Fin	cantieri Marinette Marine	PROJECT	NAME	B34-E	335 Supplem	ental Yard Ir	nvestigation			
- 1			JMBER 19M106.20	=			Marinette, WI		<u>.</u>			
			TED 9/23/20 COMPLETED 9/23/20				588.2 ft NAV		SIZE 2 in	ches		
			ONTRACTOR Horizon Construction & Exploration									
			ETHOD Macro-Core (MC)				_ING					
- 1			RLP1 CHECKED BY RJM7	-			ING					
- 1			@ time of drilling approx. 4.5'.	=								
F	III	<u> </u>	w time of drining approx. 4.3.	. ^'	AFTER DRILLING							
					SAMPLE TYPE NUMBER	%,	, (ii)	DRY UNIT WT. (pcf)	▲ SP 20	T N VA 40 6		<b>S</b> O
	DEPTH (ft)	GRAPHIC LOG	MATERIAL RECORDITION		F	RECOVERY 9 (RQD)	BLOW COUNTS (N VALUE)	JT \	PL	MC	LL	
	DEF.	LC	MATERIAL DESCRIPTION		ΔP.I	SO  RG	BLC SOU SOU	5 8	20		 80 8	
		9			SAN	RE(	ا کا	DR	☐ FINES	CONTI	ENT (%	%) □
ŀ	0		Apphalt						<u>20</u>	40 6	<u>0 8</u>	
L	_		Asphalt.									
		<b>***</b>	(FILL), Brown gravelly f. to m. sand w/silt, moist.									
		$\bowtie$										
r	-								:			! · · · · · · · · · · · · · · · · · · ·
ᆉ	_		(FILL), Gray gravelly f. sand, tr. silt, moist.						······	• • • • • • • • • • • • • • • • • • • •		 !
SS.GP.	1	$\bowtie$										
ᆰ	_										<u>:</u>	
ZAR T	_	$\bowtie$										
I AN		$\bowtie$	(FILL), V. dk. gray (10YR 3/1) silty f. sand, tr. f. gravel, mois	st.								:
GINTS									:			: :
띩	_	$\bowtie$							: :			!······
Ӹ		$\bowtie$	(FILL), V. dk. gray to black, f. to m. sand, tr. silt and gravel, fragment, moist to wet.	metal					······			 :
	-		•		МС	53						
₹	_	$\bowtie$	No recovery		1						<u>.</u>	<u>.</u>
¥ L	_	$\bowtie$	No recovery.									<u>.</u>
54681												
\D04	3	$\bowtie$										
긺		$\bowtie$						•	······			! · · · · · · · · · · · · · · · · · · ·
ᅪ	-	$\bowtie$							······	• • • • • • • • • • • • • • • • • • • •	 :	 :
퉌	-	$\bowtie$										
똵	-	$\bowtie$									<u>:</u>	
ĕ  > -	_	$\bowtie$										
S.IPW □	4											
:12 -		$\bowtie$										
20 17		$\bowtie$	PID composite field screen of 0.3 - 4.5' interval = 1.4 ppm					·	:			:
10/8		$\otimes\!\otimes$						]	:	·!······		:
<u> </u>			Bottom of borehole at 4.5 feet.									
US.												
STD												
GINT												
TS-												
1 PLC												
ᇤ												
OTEC												
ğL												

**Foth** 

# BORING NUMBER GP-12 PAGE 1 OF 1

<b>A</b>	
	Foth

CLIEN	NT Fir	ncantieri Marinette Marine	PROJECT NAME B34-B35 Supplemental Yard Investigation									
PROJ	ECT N	UMBER _19M106.20	PROJEC1	LOCAT	ION _	Marinette, WI						
		TED <u>9/24/20</u> COMPLETED <u>9/24/20</u>										
		ONTRACTOR Horizon Construction & Exploration										
		ETHOD Macro-Core (MC)	AT TIME OF DRILLING									
		' RLP1 CHECKED BY RJM7	<del></del>									
NOTE	:S		AF	TER DRI	LLING							
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)		$\begin{array}{ccc}  & - & - & - \\  & 0 & 60 \\ \hline  & CONTENT \end{array}$	80 LL 1 80		
0.0		Asphalt.						:		:		
2.5		(FILL), Brown (10YR 5/3) gravelly f. to c. sand w/silt, moist.  (FILL), Dk. grayish brown (10YR 4/2) f. sand w/gravel and sil  (FILL), Dk. grayish brown (10YR 4/2) f. sand w/gravel and sil  No recovery.		MC 1	54							
		(FILL), V. dk. gray (10YR 3/1) silty f. sand, moist.										
		Sandy gravel layer (0.1 to 0.2 thick).										
		(FILL), V. dk. grayish brown and black silty f. sand, tr. f. grave organics, moist.		2	72							
-								:	:			
		No recovery.										
7.5		PID composite field screen of 5 - 7.5' interval = 2.9 ppm							<u> </u>	<u>:</u>		
		Bottom of borehole at 7.5 feet.										
[]												

### **BORING NUMBER GP-13**

		Fo	oth				ВО	KING	INOIVIE		GF -			
	CLIEN	<b>NT</b> Fin	ncantieri Marinette Marine	PROJECT NAME B34-B35 Supplemental Yard Investigation										
- 1	PROJECT NUMBER 19M106.20				PROJECT LOCATION Marinette, WI									
	DATE	STAR	TED <u>9/24/20</u>	GROUND	ELEVA	TION _	587.4 ft NAV	<u>D 8</u> 8 <b>HOLE</b>	<b>SIZE</b> 2 ir	nches				
1	DRILL	ING C	ONTRACTOR Horizon Construction & Exploration	GROUND	WATER	LEVE	LS:							
1	DRILLING METHOD Macro-Core (MC)				AT TIME OF DRILLING									
l	OGG	SED BY	CHECKED BY     RJM7	AT	END OF	DRILL	ING							
ŀ	NOTE	S WL	@ time of drilling approx. 4'.	AF	TER DRI	LLING								
	DEPIH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	DRY UNIT WT. (pcf)	20 PL 20	PT N VA 40 6 MC 40 6	8 06 LL 1 8 06	30 - 30		
	0				/S	2		ā	☐ FINES	40 6		%) ⊔ 30		
Г			Asphalt.							•	:	:		
r	-		(FILL), Grayish brown (10YR 5/2) gravelly f. sand w/silt, dry.						:		:	:		
ŀ	-													
ŀ	-										<u>.</u>			
<u>,</u>	-	₩									<u>:</u>			
S.G.	1	₩									<u>.</u>			
	-	$\bowtie$									<u>:</u>			
DAR	_										<u>:</u>			
NE L	(FILL), Black (10YR 2/1 and v. dk. brown (10YR 2/2) silty f. gravel, tr. organics, glass chips and plastic, moist to wet.									Ė	•	:		
N									•	•	:			
등 등	2				MC									
			No recovery.		1	50								
RD G	-										<u>:</u>	· <b>!</b> · · · · · ·		
M YA P	-	₩									<u>.</u>			
71FM	-	₩									<u>.</u>			
45468	-	$\otimes \otimes$									<u>.</u>			
	3	$\bowtie$							· · · · · · · · · · · · · · · · · · ·		<u>.</u>			
K	_										<u>.</u>			
M_ M_	_													
XDIR.										:	:	:		
WOR POR	_								:	:	:	:		
₹  -	4		PID composite field screen of 0.2 - 4' interval = 4.2 ppm								÷			
<u>الع</u>	4	XXXX	Bottom of borehole at 4.0 feet.		<u> </u>				Li		<del></del>	·		
SEOTECH BH PLOTS - GINT STD US.GDT - 10/8/20 14:														

### Attachment 2

### **Monitoring Well Construction Forms**

State of Wisconsin Department of Natural Resources Route To:	Watershed/Wastewater	Waste Management	MONITORING WELL	CONSTRUCTION
Route 10.	Remediation/Redevelopment		Form 4400-113A	Rev. 7-98
Facility/Project Name	Local Grid Location of Well		Well Name	
FMM B34/B35 Supplemental Yard Inv	ft. □ N Local Grid Origin □ (estima	ft. \( \bigcup \text{E.} \\ \mathbb{W}. \)	GP-1	W
Facility License, Permit or Monitoring No.	Local Grid Origin (estima	ted:   or Well Location	Wis. Unique Well No. D	NR Well Number
Not Applicable	Lat	Long	or	
Facility ID	St. Plane469,367 ft. N,	ft. E. S	Date Well Installed	
	Section Location of Waste/Source	e	09/23/2	
Type of Well	1/4 of 1/4 of Sec.	. T. N. R.	☐ E Well Installed By: (Perso	n's Name and Firm)
Well Code 11/mw  Distance from Waste/ Enf. Stds.	Location of Well Relative to Was	ste/Source Gov. Lot Nu		ester
Source ft. Apply	d □ Downgradient n □			-
A. Protective pipe, top elevation58	8.80 ft. MSL	1. Cap and lo		
	8.51 ft. MSL	2. Protective a. Inside d		8.0_ in.
C. Land surface elevation5	88.8 ft. MSL	b. Length:		1.0_ ft.
		c. Material	:	Steel ⊠ 04
D. Surface seal, bottom 587.9 ft. MSL	or ft.			
12. USCS classification of soil near screen:	<u> </u>		nal protection?	☐ Yes ☒ No
	$V \square SP \boxtimes$		lescribe:	
SM ⊠ SC □ ML □ MH □ CI Bedrock □	CH 🗆	3. Surface sea	al:	Bentonite   30
_	es ⊠ No			Concrete 🛛 0 1
-		\ <del>\</del>		
14. Drilling method used: Rotar	· I 🔀	4. Material b	etween well casing and protective	Bentonite $\boxtimes$ 3 0
Hollow Stem Auge	er 🗆 🚨			
	4 🗆 22722	5 A		
15. Drilling fluid used: Water □ 0 2 A	ir □ 0 1	- KXXI	oace seal: a. Granular/Chipped os/gal mud weight Bentonite-s	
Drilling Mud □ 0 3 Non			os/gal mud weight Bentonite-s	
			Bentonite Bentonite-cer	
16. Drilling additives used? ☐ Ye	s ⊠ No	e	Ft <sup>3</sup> volume added for any of the	he above
Describe		f. How in	stalled:	Tremie $\square$ 0 1 nie pumped $\square$ 0 2
17. Source of water (attach analysis, if required	i):		Hein	Gravity □ 08
		6 Pantonita	seal: a. Bentoni	te granules  3 3
		KXXI /		onite chips $\boxtimes$ 3 2
E. Bentonite seal, top 587.9 ft. MSL	or0.9 ft. \	c	m. 2570 m. 172 m. Bene	•
		<b>₩</b>	material: Manufacturer, product r	
F. Fine sand, top ft. MSL	or ft.	7. Fine sand a	added ft <sup>3</sup>	
G. Filter pack, top 585.9 ft. MSL	or2.9 ft.	[X] / C C C C C C C C	material: Manufacturer, product	name & mesh size
in his in his	" — "	a	Red Flint #40	
H. Screen joint, top585.4 ft. MSL	or3.4 ft.	b. Volume	added ft <sup>3</sup>	
		9. Well casin	g: Flush threaded PVC se	chedule 40 ⊠ 23
I. Well bottom 575.1 ft. MSL	or13.7 ft. <		Flush threaded PVC se	chedule 80 $\square$ 24
		<b></b>		Other 🗆 📖
J. Filter pack, bottom 575.1 ft. MSL	or <u>13.7</u> ft.	10. Screen ma	terial: PVC	
	12.5	a. Screen		Factory cut 🛛 11
K. Borehole, bottom 575.1 ft. MSL	or <u>13.7</u> ft.			inuous slot   0 1
		/// I		Other 🗆
L. Borehole, diameter8.0 in.	****			in.
238		c. Slot size		10.0 ft.
M. O.D. well casing in.		d. Slotted	aterial (below filter pack):	π. None
N. I.D. well casing 2.00 in.		11. Dackilli III	ateriai (below litter pack).	Other 🛛
N. I.D. well casing 2.00 in.				
I hereby certify that the information on this form	n is true and correct to the best of	emy knowledge		
Signature 0	Eima	structure & Environment, LLC	l	Tel: 920-497-2500
Unlast I Per			Box 5126 De Pere, WI 54115.512	

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin Department of Natural Resources Route To:	Watershed/Wa				MONITORING WELI			(ON
E- : II t-/Dit N		edevelopment 🛛	Other		Form 4400-113A	Rev. 7-98	<u> </u>	
Facility/Project Name	Local Grid Locat	tion of Well		□ E.	Well Name	2337		
FMM B34/B35 Supplemental Yard Inv Facility License, Permit or Monitoring No.	Local Grid Origi	$\underline{ft.}  \square \stackrel{N.}{\square} \stackrel{N.}{S.} = \underline{\qquad}$ $\underline{n}  \square  \text{(estimated:}$	tt.	□ W.	GP- Wis. Unique Well No.	JW DNR Well N	lumb	er
	Lot	Lor		' " a	wis. Omque wen ivo.	DIVIX WCII IV	umo	CI
Not Applicable Facility ID					Date Well Installed			
Tuestey 12		9,642 ft. N, of Waste/Source	2,382,934	ft. E. S/C/N	09/24/	/2020		
Type of Well				□E	Well Installed By: (Pers		nd Fi	irm)
Well Code 11/mw		1/4 of Sec		N, R \Big W	Greg V			
Distance from Waste/ Source  Enf. Stds. Apply  ft.	u 🗆 Upgradi	Relative to Waste/Sent s Si adient n N	idegradient	Gov. Lot Number				
A. Protective pipe, top elevation58		•		Cap and lock?	ı	⊠ Yes		No
• • •	6.89 ft. MSL -			Protective cover pi a. Inside diameter:	•	_	8.	0 in.
C. Land surface elevation5	87.4 ft. MSL >			b. Length:		_	1.0	<u>0</u> ft.
D. Surface seal, bottom586.5 ft. MSL	09 &	37576	15.25.2	c. Material:		Steel		0 4
	or n.		16 2 16 21					
12. USCS classification of soil near screen:		WIKE IK WIR	· SKENCENC		ection?		_	No
	V□ SP 🗵   C□ CH 🗆			If yes, describe:				•
Bedrock □			₿ \ `3.	Surface seal:		Bentonite		
13. Sieve analysis attached? ☐ Ye	es ⊠ No		`			Concrete		0 1
•			× \		well casing and protective		П	500,000
14. Drilling method used: Rotar Hollow Stem Augus	-		<b>※</b> →.	Material between	well casing and protective	Bentonite	M	3.0
_								30
	ar 🗀 555,655							2.2
15. Drilling fluid used: Water □ 0 2 A	ir □ 0 1				l: a. Granular/Chippe ud weight Bentonite			
Drilling Mud □ 0 3 Non	e ⊠99				ud weight Bentonne ud weight Ben			
				% Benton	_	ement grout		
16. Drilling additives used? ☐ Ye	s 🛭 No				volume added for any of			5 0
			XXI	. How installed:	=	Tremie		0 1
Describe			$\bigotimes$		Tre	mie pumped		02
17. Source of water (attach analysis, if required	l):		$\otimes$			Gravity		
			₿ 6.	Bentonite seal:	a. Bentor	nite granules		3 3
-			<b>X</b>	b. □ 1/4 in. ⊠ 3	3/8 in. □ 1/2 in. Ber	ntonite chips	$\boxtimes$	3 2
E. Bentonite seal, top586.5 ft. MSL	or 6.9		፠ /	c		Other		
F. Fine sand, top ft. MSL	or fi	1.	7.	Fine sand material a	: Manufacturer, product	name & mes	sh siz	æ
			፟ / /		ft <sup>2</sup>	;		
G. Filter pack, top 584.7 ft. MSL	or f	ì.	8.		nl: Manufacturer, produc Red Flint #40	t name & me	sh si	ize
H. Screen joint, top584.0 ft. MSL	or3.4 f	ì. 🔍 🕌 🗼	₩ /	b. Volume added	1.5 ft <sup>2</sup>	,	_	
J / 1			9.	Well casing:	Flush threaded PVC		$\boxtimes$	2 3
I. Well bottom 573.7 ft. MSL	or13.7 f	ì. 🔪 🔣 🏥	*	C	Flush threaded PVC			2 4
			<b></b>			Other		
J. Filter pack, bottom 573.7 ft. MSL	or13.7_ f	t	10.	Screen material: a. Screen Type:	PVC	Factory cut	M	1 1
K. Borehole, bottom573.7 ft. MSL	or 13.7 f	t .		a. Serecii Type.	Cor	ntinuous slot		
R. Borchole, vottom	<i>5</i> 1 1	" \ <i>\////</i>			Coi	Other		0 1
L. Borehole, diameter8.0 in.			<b>X</b>	b. Manufacturer	Johnson			
				c. Slot size:			0.01	0 in.
M. O.D. well casing 2.38 in.				d. Slotted length:		_	10.	0 ft.
<b></b>			11.	Backfill material (	below filter pack):	None		
N. I.D. well casing <u>2.00</u> in.						Other		
Č								
I hereby certify that the information on this form	n is true and corre	ect to the best of my	knowledge.					
Signature Pulset 7 Pen	Fi	rm Foth Infrastruc	cture & Enviror	nment, LLC		Tel: 920-	-497 <i>-</i>	-2500
I want I run					6 De Pere, WI 54115.51			Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin Department of Natural Resources Route To:	Watershed/Was Remediation/Re	tewater   development	Waste Mar		MONITORING WELL Form 4400-113A	CONSTRU Rev. 7-98		ION
Facility/Project Name	Local Grid Locati	on of Well			Well Name			
FMM B34/B35 Supplemental Yard Inv		ft. $\square$ N.	ft.	☐ E. ☐ W. Vell Location	GP-	4W		
Facility License, Permit or Monitoring No.	Local Grid Origin	estimated	:	Vell Location ⊠	Wis. Unique Well No.		umb	er er
	Lot	" I a	ng °					
Not Applicable Facility ID	1				Date Well Installed			
racincy ii			2,583,131	_ ft. E. S /C/N		2020		
Type of Well	Section Location	of Waste/Source		□Е	Well Installed By: (Pers		nd F	(irm)
	1/4 of	1/4 of Sec	, T	. N, R 🗒 W	_ ` `		nu r	11111)
Well Code 11/mw  Distance from Waste/ Enf. Stds.	Location of Well	Relative to Waste/	Source	Gov. Lot Number	Greg W	Vester		
Distance from Waste/ Source ft.   Enf. Stds.   Apply	u □ Upgradie d □ Downgra	nt s □ S dient n □ N	Sidegradient Not Known		Horizon Co	nstruction		
A. Protective pipe, top elevation58	7.90 ft. MSL -	•	<u> </u>	. Cap and lock?				No
	37.63 ft. MSL -		2	2. Protective cover produced a. Inside diameter:	•		8.	.0 in.
	(87.0 C. MGT			b. Length:	•	_	1.	<u>.0</u> ft.
C. Land surface elevation	587.9 ft. MSL \	<u> </u>	•	c. Material:		Steel		
D. Surface seal, bottom587.0 ft. MSL	or <u>0.9</u> ft.	TYT Y	15.25.21	c. Material.		Other		NAMES OF TAXABLE PARTY.
12. USCS classification of soil near screen:			ALE ALE ALE	d. Additional prote	action?	∪ Yes		
GP □ GM □ GC □ GW □ SV	W□ SP ⊠ L□ CH□				======================================		_	
Bedrock □			፟ \ \3	3. Surface seal:		Bentonite		
13. Sieve analysis attached?	es 🛮 No					Concrete		
							Ш	
	ry □ 5 0		₩ `4	Material between	well casing and protective			
Hollow Stem Augo			$\bowtie$			Bentonite		3 0
Othe	er 🗆 📖 📗		$\boxtimes$	-		Other		
			<b>₩</b>	5. Annular space sea	l: a. Granular/Chippe	d Bentonite		3 3
15. Drilling fluid used: Water □ 0 2 A	ir 🗆 0 1		XX	-	ud weight Bentonite			
Drilling Mud □ 0 3 Non	ıe ⊠99			cLbs/gal m		onite slurry		
			XXX	d% Benton	_	-		
16. Drilling additives used? ☐ Ye	s ⊠ No				volume added for any of		_	
			XX	f. How installed:		Tremie		0.1
Describe						nie pumped		
17. Source of water (attach analysis, if required	1):		$\boxtimes$			Gravity		
			് .	6. Bentonite seal:	a Panton	ite granules		
			× / ′			_		
E. Bentonite seal, top587.0 ft. MSL	or0.9 ft.			6. 1/4 III. 🗵 .		tonite chips Other		3 2
F. Fine sand, top ft. MSL	or ft		7	7. Fine sand material a	: Manufacturer, product	name & mes	sh siz	ze
1. The sand, top it. Wish	or n.		$\otimes$ ///		ft <sup>3</sup>		_	
G. Filter pack, top585.3 ft. MSL	or <u>2.6</u> ft.	. \ 3	$\overline{\mathbb{Y}}$		al: Manufacturer, produc	t name & me	sch c	17e
				a	Red Flint #40		~SII S.	IZC
H. Screen joint, top584.8 ft. MSL	or 3.1 ft.			b. Volume added	$\underline{}$ 1.75 $ft^3$			
			9	9. Well casing:	Flush threaded PVC	schedule 40	$\boxtimes$	2 3
I. Well bottom 574.5 ft. MSL	or13.4 ft		M		Flush threaded PVC	schedule 80		2 4
			W.			Other		
J. Filter pack, bottom 574.4 ft. MSL	or13.5 ft.		10	). Screen material:			-	
X D 1 1 1 4 574 4 3 3 574	12.5	<i>\(\///\)</i>		a. Screen Type:		Factory cut		
K. Borehole, bottom 574.4 ft. MSL	or13.5 ft.				Con	tinuous slot		0.1
0.0			$\otimes$		T-1	Other	Ш	
L. Borehole, diameter8.0 in.		V/////	~~	b. Manufacturer	Johnson		0.01	ιο .
				c. Slot size:		_	0.01	$\frac{10}{9}$ in.
M. O.D. well casing in.				d. Slotted length:		_		<u>.0</u> ft.
			`11	. Backfill material (	below filter pack):	None		
N. I.D. well casing <u>2.00</u> in.						Other	$\boxtimes$	
T1 1 20 d 2 d 2 d 2 d 2 d 2 d 2 d 2 d 2 d 2	<del> </del>		1 1 .					
I hereby certify that the information on this form								
Signature Pulled 7 Par	Fir	rom mirastru	cture & Enviro		26 De Pere, WI 54115.512	Tel: 920- 26	497	-2500 Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin Department of Natural Resources

# **MONITORING WELL DEVELOPMENT** Form 4400-113B Rev. 7-98

	d/Wastewat		Waste Management ☐ Other ☐						
Facility/Project Name	on/Redevel	County	Otner 🗆	Well Name					
FMM B34/B35 Supplemental Yard	1 Text	1	Marinette						
Facility License, Permit or Monitoring Number	1 111V	County Code	Marinette GP-1W Wis. Unique Well Number DNR Well Numb						
Not Applicable		38	Wish Singus Wen I was		DI VIC VICE	. 1 (41110-01			
1. Can this well be purged dry?	⊠ Yes	s 🗆 No	11. Depth to Water	Before Deve	elopment	After De	evelopment		
2. Well development method:			(from top of	a.	3.53 ft.		6.50 ft.		
surged with bailer and bailed	⊠ 4	1	well casing)						
surged with bailer and pumped	□ 6	1							
surged with block and bailed	□ 4	2	Date	b. 9/24	/2020	9/	25/2020		
surged with block and pumped	$\Box$ 6	2							
surged with block, bailed, and pumped	□ 7	0				a.m.	⊠ a.m.		
compressed air	□ 2	0	Time	c.	02:35 ⊠ 1	p.m.	11:10 □ p.m.		
bailed only	□ 1	0							
pumped only	□ 5	1	12. Sediment in well		inches		inches		
pumped slowly		0	bottom		_				
other			13. Water clarity	Turbid 🛭 1	5	Clear ⊠ Turbid □	2 0 2 5		
3. Time spent developing well		175 min.		(Describe)		(Describe)			
4. Depth of well (from top of well casing)	1	3.4 ft.		V dk gray silty	to black,	Lt gray,	cloudy		
5. Inside diameter of well	2	2.00 in.							
6. Volume of water in filter pack and well		7.4 gal.							
casing		/. <b>→</b> gai.	E:::: : : : : : : : : : : : : : : : : :				•.		
	_		Fill in if drilling fluids	were used and v	vell is at sol	lid waste facil	ıty:		
7. Volume of water removed from well	5	60.0 gal.	14 75 - 1		/1				
			14. Total suspended solids		mg/l		mg/l		
8. Volume of water added (if any)		gal.	Solius						
9. Source of water added			15. COD		mg/l		mg/l		
			16. Well developed by	n Dangania Nama	and Eines				
10. Analysis performed on water added?	□ Ves				and Firm				
(If yes, attach results)	☐ 1 CS	5 🗀 110	Rick Pa	nosh					
(ii yes, attach results)			Foth Infrastructure & Environment, LLC						
17. Additional comments on development:			1 Oth III	rastructure &	Liiviioiiii	ilent, LLC			
9/24/2020: Bailed down multiple tim 9/25/2020: Resumed bailing, initial v				llons out.					
Facility Address or Owner/Responsible Party Add	Iress		I hereby certify that th	l i f	tian ia turra		the best of my		
Warren Netzow			knowledge.	ie above imorma	tion is true	and correct to	the best of my		
Name: Walter Netzow									
Firm: Fincantieri Marinette Marine			Signature:	but I Pear	_				
Street: 1600 Ely Street			Print Name: Rick F	Panosh					
City/State/Zip: Marinette, WI 54143			Firm: Foth I	nfrastructure &	& Enviror	nment, LLC			

State of Wisconsin Department of Natural Resources

# **MONITORING WELL DEVELOPMENT** Form 4400-113B Rev. 7-98

	ntershed/Wastewat mediation/Redevelo		Waste Management ☐ Other ☐							
Facility/Project Name	mediation/Redevel	County	Office 🗀	Well Name						
FMM B34/B35 Supplementa	1 Vord Inv	1 -	Marinette	Well Name	GF	<b>P-3</b> W				
Facility License, Permit or Monitoring Nur		County Code	Wis. Unique Well Nu	mber	DNR Wel					
Not Applicable		38	1							
r (et rippireaere		1 20								
1. Can this well be purged dry?	☐ Yes	s ⊠ No	11. Depth to Water	Before Dev	relopment	After De	evelopment			
2. Well development method:			(from top of	a.	4.28 ft.		4.48 ft.			
surged with bailer and bailed	⊠ 4	1	well casing)							
surged with bailer and pumped	□ 6	1								
surged with block and bailed	□ 4	2	Date	b. 9/25	5/2020	9/	25/2020			
surged with block and pumped	□ 6	2								
surged with block, bailed, and pum	nped $\Box$ 7	0			$\boxtimes a$		⊠ a.m.			
compressed air	□ 2	0	Time	c.	08:10 □ p	o.m.	$11:00 \square p.m.$			
bailed only	□ 1	0								
pumped only	□ 5		12. Sediment in well		inches		inches			
pumped slowly	□ 5		bottom							
other	🗆 📱		13. Water clarity	Turbid 🛛	1 0 1 5	Clear □ Turbid ⊠	2 0 2 5			
3. Time spent developing well		170 min.		(Describe)		(Describe)				
				V dk gray	to black,	Sl turbio	l, gray			
4. Depth of well (from top of well casing)	1	3.1 ft.		silty, fain	t					
				_petroleun						
5. Inside diameter of well	2	.00 in.		slight she	en					
6. Volume of water in filter pack and well										
casing		6.7 gal.								
			Fill in if drilling fluids	were used and	well is at sol	id waste faci	lity:			
7. Volume of water removed from well	5	5.0 gal.								
		6	14. Total suspended		mg/l		mg/l			
8. Volume of water added (if any)		gal.	solids							
9. Source of water added			15. COD		mg/l		mg/l			
			16. Well developed by	: Person's Name	e and Firm					
10. Analysis performed on water added?	☐ Yes	□ No	Bob Me							
(If yes, attach results)			Foth Infrastructure & Environment, LLC							
17. Additional comments on development:			1 0 111 1111			, 220				
Bailed over 170 min period.										
Faint petroleum odor and sheen	on discharged	water.								
Facility Address or Owner/Responsible Pa	rty Address		I hereby certify that th	ne above informa	ition is true	and correct to	the best of my			
Name:			knowledge.							
ivame.			D	11-0						
Firm: Fincantieri Marinette Mar	rine		Signature:	but I Pa						
1600 Elv Street			Print Name: Rick I	Panosh						
							~			
City/State/Zip: Marinette, WI 543	143		Firm: Foth I	nfrastructure	& Environ	ment, LLC	<u>;                                    </u>			

State of Wisconsin Department of Natural Resources

# **MONITORING WELL DEVELOPMENT** Form 4400-113B Rev. 7-98

	hed/Wastewat iation/Redevel		Waste Management ☐ Other ☐							
Facility/Project Name	iation/Redevel	County	Other 🗆	Well N	ame					
FMM B34/B35 Supplemental Y	ard Inv	County	Marinette	Wenty		<b>P-4</b> W				
Facility License, Permit or Monitoring Number		County Code		mber	DNR Well					
Not Applicable		38	1							
1. Can this well be purged dry?	☐ Yes	⊠ No	11 5 1 W	Before	Development	After Deve	lopment			
Well development method:     surged with bailer and bailed	⊠ 4	1	11. Depth to Water (from top of well casing)	a.	5.62 ft.		5.72 ft.			
surged with bailer and pumped surged with block and bailed surged with block and pumped	□ 6 □ 4 □ 6	2	Date	b.	9/24/2020	9/25/	/2020			
surged with block, bailed, and pumped compressed air bailed only	□ 7	0 0	Time	c.	□ a 02:45 ⊠ p		⊠ a.n 09:05 □ p.n			
pumped only pumped slowly	□ 5 □ 5	1 0	12. Sediment in well bottom	CI.	inches		inches			
other		140 min.	13. Water clarity	Clear Turbid (Describ	_	Clear ⊠ 2 Turbid □ 2 (Describe)				
4. Depth of well (from top of well casing)	1	3.0 ft.		Dk gr silty	ray-brown,	Sl cloudy				
5. Inside diameter of well	2	.00 in.								
6. Volume of water in filter pack and well casing		5.6 gal.								
7. Volume of water removed from well	5	0.0 gal.	Fill in if drilling fluids  14. Total suspended	were used	and well is at sol mg/l	id waste facility:	mg/l			
8. Volume of water added (if any)		gal.	solids							
9. Source of water added			15. COD		mg/l		mg/l			
			16. Well developed by	: Person's	Name and Firm					
10. Analysis performed on water added?	☐ Yes	□ No	Rick Par	nosh						
(If yes, attach results)			Foth Infrastructure & Environment, LLC							
17. Additional comments on development: 9/24/2020: Bailed over 120 min po 9/25/2020: Resumed bailing, initial				ns out.						
Facility Address or Owner/Responsible Party A	Address		I hereby certify that the knowledge.	ne above in	formation is true a	and correct to the	e best of my			
Firm: Fincantieri Marinette Marine	;		Signature: Nuly	et 7 h	)					
Street: 1600 Ely Street			Print Name: Rick F	Panosh						
City/State/Zip: Marinette, WI 54143			Firm: Foth I	nfrastruc	ture & Environ	ment, LLC				

State of Wisconsin Department of Natural Resources

# **MONITORING WELL DEVELOPMENT** Form 4400-113B Rev. 7-98

· · · · · · · · · · · · · · · · · · ·	tersned/wastewat		waste Management L				
	nediation/Redevel	-	Other				
Facility/Project Name		County		Well Nam			
FMM B34/B35 Supplemental		9 9 9 1	Marinette			P-6W	
Facility License, Permit or Monitoring Num	iber	County Code	Wis. Unique Well Nu	mber	DNR Wel	I Number	
Not Applicable		38					
1. Can this well be purged dry?	☐ Yes	s ⊠ No		Before De	evelopment	After De	evelopment
r. can this wen se purged ary.		, <u>L</u>	11. Depth to Water	Belofe B	e vereprinerie	THIEF D	<u> </u>
2. Well development method:			(from top of	a.	5.25 ft.		5.80 ft.
surged with bailer and bailed	⊠ 4	1	well casing)				
surged with bailer and pumped	□ 6	1					
surged with block and bailed	□ 4	2	Date	b. 9/2	24/2020	9/	/25/2020
surged with block and pumped	□ 6						
surged with block, bailed, and pump						a.m.	⊠ a.n
compressed air	□ 2		Time	c.	03:05 ⋈ 1	p.m.	10:10 □ p.n
bailed only			12. Sediment in well		1		
pumped only	□ 5		bottom		inches		inches
pumped slowly other		0	13. Water clarity	Clear 🗆	1 0	Clear 🛛	2 0
otner	📙 🕸	1828	13. Water clarity	Turbid ⊠		Turbid	
2.75		115 min.		(Describe)	10	(Describe)	
3. Time spent developing well		113 mm.			ay to black,	` ′	
4. Depth of well (from top of well casing)	1	3.2 ft.		silty	ay to black,	gray-bro	
+. Deput of well (from top of well casing)	1	J.2 II.		Sifty		gray-oro	JWII
5. Inside diameter of well	2	.00 in.					
or more diameter of wen	_						
6. Volume of water in filter pack and well							
casing		6.1 gal.					
			Fill in if drilling fluids	were used an	d well is at sol	lid waste faci	lity:
7. Volume of water removed from well	5	0.0 gal.					
		C	14. Total suspended		mg/l		mg/l
8. Volume of water added (if any)		gal.	solids				
			15 COD		/1		4
9. Source of water added			15. COD		mg/l		mg/l
			16 777 11 1 1 1 1	D 137	1.57		
10 A - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			16. Well developed by	: Person's Na	me and Firm		
10. Analysis performed on water added? (If yes, attach results)	☐ Yes	□ No	Rick Pa	nosh			
(II yes, attach results)			Foth Inf	frastructure.	& Environn	nent LLC	
17. Additional comments on development:			1 our mi	Tastractare .	& Liiviioiiii	icht, EEC	
9/24/2020: Bailed over 90 min p	period approx	35 gallons o	nut				
9/25/2020: Resumed bailing, ini				ons out			
7/25/2020. Resumed suming, in	tital water leve	1 3.03,23	iiii, approx 13 gaire	nis out.			
Facility Address or Owner/Responsible Par	ty Address		I hereby certify that the		mation is tors	ad aaat t	a tha hast of my
Wannan Nataon			knowledge.	ie above iniori	mation is true	and correct to	o the best of my
Name: Warren Netzow					`		
Firm: Fincantieri Marinette Mar	ine		In the	but I to	w _		
Firm: Fincantieri Marinette Mar			Signature:	,,,			
Street: 1600 Ely Street			Print Name: Rick I	Panosh			
Succi			. Trint Name				
City/State/Zip: Marinette, WI 541	43		Firm: Foth I	nfrastructur	e & Enviror	nment, LLC	C
J 1							

State of Wisconsin Department of Natural Resources Route To:	Watershed/Wastewater	Waste Management	MONITORING WELL CONSTRU Form 4400-113A Rev. 7-98	
Facility/Deciset Name	Remediation/Redevelopment   Local Grid Location of Well	Other		
Facility/Project Name	Local Grid Location of Well	□ <b>E</b> .	Well Name	
FMM B34/B35 Supplemental Yard Inv	ft. S. —	ft.	GP-6W	
Facility License, Permit or Monitoring No.	Local Grid Origin (estimate	ed:   or Well Location   iii	Wis. Unique Well No. DNR Well N	umber
Not Applicable	Lat L	ong or		
Facility ID	St. Plane469,892 ft. N,		Date Well Installed	
	Section Location of Waste/Source		09/23/2020	
Type of Well	1/4 6 1/4 66	T N.B.	Well Installed By: (Person's Name a	nd Firm)
Well Code 11/mw	1/4 of 1/4 of Sec Location of Well Relative to Waste		Greg Wester	
Distance from Waste/ Source    Enf. Stds.   Apply	u □ Upgradient s □	Sidegradient Not Known	Horizon Construction	
	38.30 ft. MSL		⊠ Yes	□ No
		2. Protective cover p	ipe:	
B. Well casing, top elevation 58	87.90 ft. MSL	a. Inside diameter	<u> </u>	8.0 in.
C. Land surface elevation5	588.3 ft. MSL	b. Length:	<u>_</u>	1.0 ft.
		c. Material:	Steel	⊠ 04
D. Surface seal, bottom587.4 ft. MSL	or <u>0.9</u> ft.	16.216.21 16.216.216	Other	
12. USCS classification of soil near screen:	DIKO KON	d. Additional prot	ection?	⊠ No
	$W \square SP \boxtimes  $		::	
	L CH CH		Bentonite	
Bedrock □		3. Surface seal:	Concrete	
13. Sieve analysis attached? ☐ Ye	s ⊠ No		Other	55555555
-				
14. Drilling method used: Rotar	J XX	4. Material between	well casing and protective pipe:	FI 20
Hollow Stem Augo			Bentonite	
Othe	er 🗆 🧱	<u> </u>	Other	Ш
		5. Annular space sea	al: a. Granular/Chipped Bentonite	□ 33
15. Drilling fluid used: Water □ 0 2 A	ir □ 0 1	bLbs/gal n	nud weight Bentonite-sand slurry	□ 35
Drilling Mud □ 0 3 Non	ıe ⊠99		nud weight Bentonite slurry	
		d% Bentor		
16. Drilling additives used? ☐ Ye	:s ⊠ No		volume added for any of the above	
		f. How installed		□ 01
Describe		1. How instance	Tremie pumped	
17. Source of water (attach analysis, if required	i):			
			Gravity	
		6. Bentonite seal:	8	
		<b>∞</b>	$3/8$ in. $\square 1/2$ in. Bentonite chips	
E. Bentonite seal, top587.4 ft. MSL			Other l: Manufacturer, product name & mes	
F. Fine sand, top ft. MSL	or ft.	7. Fine sand materia	ft <sup>3</sup>	
595.5 0 Mg	/ / /	1.74 /		1 .
G. Filter pack, top585.5 ft. MSL	or2.8 ft.		al: Manufacturer, product name & me Red Flint #40	sn size
II C	or3.3 ft.	a		
H. Screen joint, top 585.0 ft. MSL	or n.	b. Volume added		
5747	12.6	9. Well casing:	Flush threaded PVC schedule 40	
I. Well bottom 574.7 ft. MSL	or13.6 ft	클(성)	Flush threaded PVC schedule 80	□ 24
J. Filter pack, bottom 574.7 ft. MSL	or13.6 ft.	10. Screen material:	PVC	
		a. Screen Type:	Factory cut	⊠ 11
K. Borehole, bottom 574.7 ft. MSL	or13.6 ft. \		Continuous slot	
IN 1122			Other	
L. Borehole, diameter8.0 in.		b. Manufacturer		<b>—</b> ,
L. Borehole, diameter8.0 in.				0.010 in.
2.20		c. Slot size:		$\frac{0.010}{10.0}$ in.
M. O.D. well casing 2.38 in.		d. Slotted length:		
		11. Backfill material	• •	□ 14
N. I.D. well casing $\underline{\qquad}$ in.			Other	<b>X</b>
I hereby certify that the information on this form	n is true and correct to the best of r	ny knowledge.		
Signature O 1 1 1	Firm Foth Infrastr	ructure & Environment, LLC	Tel: 920-	-497-2500
Signature Pulmet 7 Pen		ation Court, Suite 300, P.O. Box 512		Fax:

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

# **Attachment 3**





October 12, 2020

DENIS ROZNOWSKI Foth Infrastructure & Environment, LLC 2121 Innovation Court De Pere, WI 54115

RE: Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

# Dear DENIS ROZNOWSKI:

Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2020. 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
- Pace Analytical Services Minneapolis

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

Sincerely,

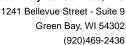
Tod noltemeyor

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

Enclosures

cc: Steve Lehrke, Foth Infrastructure & Environment RICK PANOSH, Foth Infrastructure & Environment, LLC







# **CERTIFICATIONS**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Pace Analytical Services - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414

A2LA Certification #: 2926.01 Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064 Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064 Arkansas WW Certification #: 88-0680 California Certification #: 2929

Colorado Certification #: MN00064 Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-

053-137

Florida Certification #: E87605 Georgia Certification #: 959 Hawaii Certification #: MN00064 Idaho Certification #: MN00064 Illinois Certification #: 200011 Indiana Certification #: C-MN-01 Iowa Certification #: 368 Kansas Certification #: E-10167

Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: Al-03086
Louisiana DW Certification #: MN00064

Maine Certification #: MN00064 Maryland Certification #: 322

Massachusetts DWP Certification #: via MN 027-053-137

Michigan Certification #: 9909 Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137

Minnesota Petrofund Certification #: 1240

Mississippi Certification #: MN00064 Missouri Certification #: 10100 Montana Certification #: CERT0092 Nebraska Certification #: NE-OS-18-06 Nevada Certification #: MN00064 New Hampshire Certification #: 2081 New Jersey Certification #: MN002

New York Certification #: 11647 North Carolina DW Certification #: 27700 North Carolina WW Certification #: 530 North Dakota Certification #: R-036

Ohio DW Certification #: 41244 Ohio VAP Certification #: CL101 Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486

West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

USDA Permit #: P330-19-00208

# 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



# **SAMPLE SUMMARY**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40215420001	GP-1, 0.2-5.5'	Solid	09/23/20 13:10	09/25/20 15:12
40215420002	GP-4, 0.0-4.0'	Solid	09/23/20 15:15	09/25/20 15:12
40215420003	GP-6, 0.2-5.0'	Solid	09/23/20 17:02	09/25/20 15:12
40215420004	GP-10, 0.3-4.0'	Solid	09/23/20 12:05	09/25/20 15:12
40215420005	GP-11, 0.3-4.5'	Solid	09/23/20 11:14	09/25/20 15:12
40215420006	GP-3, 0.1-4.0'	Solid	09/24/20 08:36	09/25/20 15:12
40215420007	GP-2, 0.2-4.5' UPPER	Solid	09/24/20 10:40	09/25/20 15:12
40215420008	GP-2, 0.2-4.5' LOWER	Solid	09/24/20 10:40	09/25/20 15:12
40215420009	GP-8, 0.3-6.5'	Solid	09/24/20 10:55	09/25/20 15:12
40215420010	GP-7, 0.3-5.0'	Solid	09/24/20 11:08	09/25/20 15:12
40215420011	GP-9, 0.2-4.0'	Solid	09/24/20 11:43	09/25/20 15:12
40215420012	GP-12, 0.2-5.0'	Solid	09/24/20 12:15	09/25/20 15:12
40215420013	GP-12, 5.0-7.5'	Solid	09/24/20 12:20	09/25/20 15:12
40215420014	GP-13, 0.2-4.0'	Solid	09/24/20 12:25	09/25/20 15:12
40215420015	GP-5, 0.2-4.0'	Solid	09/24/20 12:45	09/25/20 15:12
40215420016	MEOH BLANK	Solid	09/23/20 00:00	09/25/20 15:12



# **SAMPLE ANALYTE COUNT**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

PART	Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
PA 6020	40215420001	GP-1, 0.2-5.5'	EPA 8081B	AMV	24	PASI-M
PAPA 1711   AJT   1   PASI-G			EPA 8082A	BLM	10	PASI-G
PAR 8270 by SIM   JJB   20			EPA 6020	DS1	9	PASI-G
PASIGO			EPA 7471	AJT	1	PASI-G
10215420002			EPA 8270 by SIM	JJB	20	PASI-G
10215420002   1021542002   1021542002   10			EPA 8260	SMT	64	PASI-G
PAR 8082A   BLM   10   PASI-G			ASTM D2974-87	SKW	1	PASI-G
EPA 6020 DS1 9 PASI-G EPA 7471 AJT 1 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8260 SMT 64 PASI-G ASTM D2974-87 SKW 1 PASI-G EPA 8081B AMV 24 PASI-M EPA 8070 by SIM JJB 20 PASI-G EPA 8081B AMV 24 PASI-M EPA 8082A BLM 10 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8280 SMT 64 PASI-G EPA 8081B AMV 24 PASI-M EPA 8081B AMV 24 PASI-M EPA 8082A BLM 10 PASI-G EPA 8081B AMV 24 PASI-M EPA 8082A BLM 10 PASI-G EPA 8082A BLM 10 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8280 SMT 64 PASI-G EPA 8081B AMV 24 PASI-M EPA 8082A BLM 10 PASI-G EPA 8280 SMT 64 PASI-G EPA 8081B AMV 24 PASI-M EPA 8082A BLM 10 PASI-G EPA 8081B AMV 24 PASI-M EPA 8082A BLM 10 PASI-G EPA 8081B AMV 24 PASI-M EPA 8082A BLM 10 PASI-G EPA 8081B AMV 24 PASI-M EPA 8082A BLM 10 PASI-G EPA 8082B BLM 10 PA	10215420002	GP-4, 0.0-4.0'	EPA 8081B	AMV	24	PASI-M
EPA 7471 AJT 1 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8260 SMT 64 PASI-G ASTM D2974-87 SKW 1 PASI-G EPA 8082A BLM 10 PASI-G EPA 8082A BLM 10 PASI-G EPA 8070 by SIM JJB 20 PASI-M EPA 8082A BLM 10 PASI-G EPA 6020 DS1 9 PASI-G EPA 7471 AJT 1 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8081B AMV 24 PASI-M EPA 8081B AMV 24 PASI-M EPA 8081B AMV 24 PASI-M EPA 8070 by SIM JJB 20 PASI-G EPA 8081B AMV 24 PASI-M EPA 8082A BLM 10 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8260 SMT 64 PASI-G EPA 8082A BLM 10 PASI-G EPA 8082A			EPA 8082A	BLM	10	PASI-G
EPA 8270 by SIM   JJB   20   PASI-G     EPA 8260   SMT   64   PASI-G     ASTM D2974-87   SKW   1   PASI-G     EPA 8081B   AMW   24   PASI-M     EPA 8082A   BLM   10   PASI-G     EPA 6020   DS1   9   PASI-G     EPA 4270 by SIM   JJB   20   PASI-G     EPA 8270 by SIM   JJB   20   PASI-G     EPA 8260   SMT   64   PASI-G     ASTM D2974-87   SKW   1   PASI-G     ASTM D2974-87   SKW   1   PASI-G     EPA 8081B   AMW   24   PASI-M     EPA 8082A   BLM   10   PASI-G     EPA 7471   AJT   1   PASI-G     EPA 8270 by SIM   JJB   20   PASI-G     EPA 8270 by SIM   JJB   20   PASI-G     EPA 8260   SMT   64   PASI-G     EPA 8081B   AMW   24   PASI-M     EPA 8082A   BLM   10   PASI-G     EPA 8260   SMT   64   PASI-G     EPA 8260   SMT   64   PASI-G     EPA 8260   SMT   1   PASI-G     EPA 8082A   BLM   10   PASI-G     EPA 8081B   AMV   24   PASI-M     EPA 8082A   BLM   10   PASI-G     EPA			EPA 6020	DS1	9	PASI-G
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0215420005       GP-11, 0.3-4.5'       EPA 8081B       AMV       24       PASI-M         EPA 8082A       BLM       10       PASI-G         EPA 6020       DS1       9       PASI-G         EPA 7471       AJT       1       PASI-G         EPA 8270 by SIM       JJB       20       PASI-G         EPA 8260       SMT       64       PASI-G         ASTM D2974-87       SKW       1       PASI-G         0215420006       GP-3, 0.1-4.0'       EPA 8081B       AMV       24       PASI-M			EPA 8260	SMT	64	PASI-G
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EPA 6020 DS1 9 PASI-G EPA 7471 AJT 1 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8260 SMT 64 PASI-G EPA 8260 SMT 64 PASI-G ASTM D2974-87 SKW 1 PASI-G EPA 8081B AMV 24 PASI-M	0215420005	GP-11, 0.3-4.5'	EPA 8081B	AMV	24	PASI-M
EPA 7471 AJT 1 PASI-G EPA 8270 by SIM JJB 20 PASI-G EPA 8260 SMT 64 PASI-G ASTM D2974-87 SKW 1 PASI-G 40215420006 GP-3, 0.1-4.0' EPA 8081B AMV 24 PASI-M			EPA 8082A	BLM	10	PASI-G
EPA 8270 by SIM JJB 20 PASI-G EPA 8260 SMT 64 PASI-G ASTM D2974-87 SKW 1 PASI-G 40215420006 GP-3, 0.1-4.0' EPA 8081B AMV 24 PASI-M			EPA 6020	DS1	9	PASI-G
EPA 8260 SMT 64 PASI-G ASTM D2974-87 SKW 1 PASI-G 0215420006 GP-3, 0.1-4.0' EPA 8081B AMV 24 PASI-M			EPA 7471	AJT	1	PASI-G
ASTM D2974-87 SKW 1 PASI-G 40215420006 GP-3, 0.1-4.0' EPA 8081B AMV 24 PASI-M			EPA 8270 by SIM	JJB	20	PASI-G
<b>10215420006 GP-3, 0.1-4.0'</b> EPA 8081B AMV 24 PASI-M			EPA 8260	SMT	64	PASI-G
			ASTM D2974-87	SKW	1	PASI-G
EPA 8082A BLM 10 PASI-G	40215420006	GP-3, 0.1-4.0'	EPA 8081B	AMV	24	PASI-M
			EPA 8082A	BLM	10	PASI-G



# **SAMPLE ANALYTE COUNT**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	DS1	9	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	JJB	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
0215420007	GP-2, 0.2-4.5' UPPER	EPA 8081B	AMV	24	PASI-M
		EPA 8082A	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	JJB	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
0215420008	GP-2, 0.2-4.5' LOWER	EPA 8081B	AMV	24	PASI-M
		EPA 8082A	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	JJB	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
0215420009	GP-8, 0.3-6.5'	EPA 8081B	AMV	24	PASI-M
		EPA 8082A	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	JJB	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
0215420010	GP-7, 0.3-5.0'	EPA 8081B	AMV	24	PASI-M
		EPA 8082A	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	JJB	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
0215420011	GP-9, 0.2-4.0'	EPA 8081B	AMV	24	PASI-M
		EPA 8082A	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7471	AJT	1	PASI-G

# **REPORT OF LABORATORY ANALYSIS**

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# **SAMPLE ANALYTE COUNT**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8270 by SIM	JJB	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40215420012	GP-12, 0.2-5.0'	EPA 8081B	AMV	24	PASI-M
		EPA 8082A	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	JJB	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
10215420013	GP-12, 5.0-7.5'	EPA 8081B	AMV	24	PASI-M
		EPA 8082A	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	JJB	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
0215420014	GP-13, 0.2-4.0'	EPA 8081B	AMV	24	PASI-M
		EPA 8082A	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	JJB	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
0215420015	GP-5, 0.2-4.0'	EPA 8081B	AMV	24	PASI-M
		EPA 8082A	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	JJB	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	SKW	1	PASI-G
40215420016	MEOH BLANK	EPA 8260	SMT	64	PASI-G

PASI-G = Pace Analytical Services - Green Bay PASI-M = Pace Analytical Services - Minneapolis



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# PROJECT NARRATIVE

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Method: EPA 8081B

Description: 8081B GCS Pesticides

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 12, 2020

# **General Information:**

15 samples were analyzed for EPA 8081B by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

# **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

# Sample Preparation:

The samples were prepared in accordance with EPA 3550 with any exceptions noted below.

# Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

# **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 701891

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

- GP-11, 0.3-4.5' (Lab ID: 40215420005)
  - Decachlorobiphenyl (S)
- GP-2, 0.2-4.5' LOWER (Lab ID: 40215420008)
  - Decachlorobiphenyl (S)

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

# **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 701891

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

#### Additional Comments:

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# **PROJECT NARRATIVE**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Method: EPA 8081B

Description: 8081B GCS Pesticides

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

Date: October 12, 2020

Analyte Comments:

QC Batch: 701891

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

- GP-1, 0.2-5.5' (Lab ID: 40215420001)
  - Tetrachloro-m-xylene (S)
- GP-10, 0.3-4.0' (Lab ID: 40215420004)
  - Tetrachloro-m-xylene (S)
- GP-11, 0.3-4.5' (Lab ID: 40215420005)
  - Tetrachloro-m-xylene (S)
- GP-12, 0.2-5.0' (Lab ID: 40215420012)
  - Tetrachloro-m-xylene (S)
- GP-12, 5.0-7.5' (Lab ID: 40215420013)
  - Tetrachloro-m-xylene (S)
- GP-13, 0.2-4.0' (Lab ID: 40215420014)
  - Tetrachloro-m-xylene (S)
- GP-2, 0.2-4.5' LOWER (Lab ID: 40215420008)
  - Tetrachloro-m-xylene (S)
- GP-2, 0.2-4.5' UPPER (Lab ID: 40215420007)
  - Tetrachloro-m-xylene (S)
- GP-3, 0.1-4.0' (Lab ID: 40215420006)
  - Tetrachloro-m-xylene (S)
- GP-4, 0.0-4.0' (Lab ID: 40215420002)
  - Tetrachloro-m-xylene (S)
- GP-5, 0.2-4.0' (Lab ID: 40215420015)
  - Tetrachloro-m-xylene (S)
- GP-6, 0.2-5.0' (Lab ID: 40215420003)
  Tetrachloro-m-xylene (S)
- GP-7, 0.3-5.0' (Lab ID: 40215420010)
- Tetrachloro-m-xylene (S)
- GP-8, 0.3-6.5' (Lab ID: 40215420009)
  - Tetrachloro-m-xylene (S)
- GP-9, 0.2-4.0' (Lab ID: 40215420011)
  - Tetrachloro-m-xylene (S)
- GP-12, 0.2-5.0' (Lab ID: 40215420012)
  - Tetrachloro-m-xylene (S)
- GP-2, 0.2-4.5' UPPER (Lab ID: 40215420007)
  - Tetrachloro-m-xylene (S)
- GP-4, 0.0-4.0' (Lab ID: 40215420002)
  - Tetrachloro-m-xylene (S)
- GP-5, 0.2-4.0' (Lab ID: 40215420015)
  - Tetrachloro-m-xylene (S)



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# **PROJECT NARRATIVE**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Method: EPA 8082A
Description: 8082A GCS PCB

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

Date: October 12, 2020

# **General Information:**

15 samples were analyzed for EPA 8082A by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

# **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

# Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

# **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Surrogates:

All surrogates were within QC limits with any exceptions noted below.

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

# **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

# Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

#### **Additional Comments:**



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# **PROJECT NARRATIVE**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Method: EPA 6020

Description: 6020 MET ICPMS

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 12, 2020

# **General Information:**

15 samples were analyzed for EPA 6020 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

# **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

# Sample Preparation:

The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

# Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

# **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

# **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

# Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

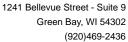
# **Additional Comments:**

Analyte Comments:

QC Batch: 366768

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

- GP-1, 0.2-5.5' (Lab ID: 40215420001)
  - Silver
  - Cadmium
- GP-10, 0.3-4.0' (Lab ID: 40215420004)
  - Silver
  - Cadmium
  - Selenium
- GP-11, 0.3-4.5' (Lab ID: 40215420005)
  - Silver
  - Cadmium





# **PROJECT NARRATIVE**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Method: EPA 6020

Description: 6020 MET ICPMS

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

Date: October 12, 2020

Analyte Comments:

QC Batch: 366768

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

- GP-11, 0.3-4.5' (Lab ID: 40215420005)
  - Selenium
- GP-12, 0.2-5.0' (Lab ID: 40215420012)
  - Silver
  - Cadmium
  - Selenium
- GP-12, 5.0-7.5' (Lab ID: 40215420013)
  - Silver
  - Cadmium
  - Selenium
- GP-13, 0.2-4.0' (Lab ID: 40215420014)
  - Silve
- GP-2, 0.2-4.5' LOWER (Lab ID: 40215420008)
  - Silver
  - Cadmium
- GP-2, 0.2-4.5' UPPER (Lab ID: 40215420007)
  - Silver
  - Cadmium
  - Selenium
- GP-3, 0.1-4.0' (Lab ID: 40215420006)
  - Selenium
- GP-4, 0.0-4.0' (Lab ID: 40215420002)
  - Silver
  - Cadmium
  - Selenium
- GP-5, 0.2-4.0' (Lab ID: 40215420015)
  - Silver
  - Cadmium
  - Selenium
- GP-6, 0.2-5.0' (Lab ID: 40215420003)
  - Silver
  - Cadmium
  - Selenium
- GP-7, 0.3-5.0' (Lab ID: 40215420010)
  - Silver
  - Cadmium
  - Selenium
- GP-8, 0.3-6.5' (Lab ID: 40215420009)
  - Silver
  - Cadmium
  - Selenium
- GP-9, 0.2-4.0' (Lab ID: 40215420011)
  - Silver



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# **PROJECT NARRATIVE**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Method: EPA 6020

Description: 6020 MET ICPMS

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

Date: October 12, 2020

Analyte Comments: QC Batch: 366768

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

• GP-9, 0.2-4.0' (Lab ID: 40215420011)

CadmiumSelenium



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# **PROJECT NARRATIVE**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Method: EPA 7471
Description: 7471 Mercury

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 12, 2020

# **General Information:**

15 samples were analyzed for EPA 7471 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

# **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 7471 with any exceptions noted below.

# Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

# **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

# **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

# Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

# Additional Comments:

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# **PROJECT NARRATIVE**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Method: EPA 8270 by SIM Description: 8270 MSSV PAH by SIM

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

Date: October 12, 2020

#### General Information:

15 samples were analyzed for EPA 8270 by SIM by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

# **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# **Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

#### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

# **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

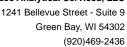
QC Batch: 367157

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40215403015

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

- MSD (Lab ID: 2122352)
  - Fluoranthene
  - Phenanthrene
  - Pyrene

#### Additional Comments:





# **PROJECT NARRATIVE**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Method: EPA 8260

Description: 8260 MSV Med Level Normal List

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 12, 2020

# **General Information:**

16 samples were analyzed for EPA 8260 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

# Sample Preparation:

The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

# Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

# **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

#### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

# **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

# Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

#### **Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-1, 0.2-5.5' Lab ID: 40215420001 Collected: 09/23/20 13:10 Received: 09/25/20 15:12 Matrix: Solid

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

			LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical	Method: EPA	\ 8081B Prepa	aration Me	thod: Ef	PA 3550			
	Pace Anal	ytical Service	es - Minneapo	lis					
Aldrin	<28.6	ug/kg	95.2	28.6	50	10/01/20 15:08	10/02/20 18:50	309-00-2	
alpha-BHC	<12.2	ug/kg	40.8	12.2	50	10/01/20 15:08	10/02/20 18:50		
beta-BHC	<20.5	ug/kg	68.3	20.5	50	10/01/20 15:08	10/02/20 18:50		
delta-BHC	<15.6	ug/kg	52.0	15.6	50	10/01/20 15:08	10/02/20 18:50		
gamma-BHC (Lindane)	<11.3	ug/kg	37.7	11.3	50		10/02/20 18:50		
Chlordane (Technical)	<295	ug/kg	981	295	50	10/01/20 15:08	10/02/20 18:50		
alpha-Chlordane	<12.3	ug/kg	41.1	12.3	50	10/01/20 15:08	10/02/20 18:50		
gamma-Chlordane	<28.7	ug/kg	95.6	28.7	50	10/01/20 15:08	10/02/20 18:50		
4,4'-DDD	<20.7	ug/kg	68.9	20.7	50	10/01/20 15:08	10/02/20 18:50		
4,4'-DDE	<19.4	ug/kg	64.6	19.4	50	10/01/20 15:08	10/02/20 18:50		
4,4'-DDT	<43.6	ug/kg ug/kg	145	43.6	50	10/01/20 15:08	10/02/20 18:50		
Dieldrin	<18.6	ug/kg ug/kg	61.9	18.6	50	10/01/20 15:08	10/02/20 18:50		
Endosulfan I	<14.9	ug/kg ug/kg	49.7	14.9	50	10/01/20 15:08	10/02/20 18:50		
Endosulfan II	<29.6	ug/kg ug/kg	98.6	29.6	50	10/01/20 15:08	10/02/20 18:50		
Endosulfan sulfate	<35.8	ug/kg ug/kg	119	35.8	50	10/01/20 15:08	10/02/20 18:50		
Endrin	<20.4	ug/kg ug/kg	67.8	20.4	50	10/01/20 15:08	10/02/20 18:50		
Endrin aldehyde	<40.2	ug/kg ug/kg	134	40.2	50	10/01/20 15:08	10/02/20 18:50		
Endrin ketone	<40.2 <49.4		165	49.4	50	10/01/20 15:08	10/02/20 18:50		
Heptachlor	<49.4 <20.1	ug/kg	66.9	20.1	50	10/01/20 15:08	10/02/20 18:50		
•	<20.1 <13.8	ug/kg			50		10/02/20 18:50		
Heptachlor epoxide	<13.8 <295	ug/kg	45.9 983	13.8 295		10/01/20 15:08 10/01/20 15:08			
Methoxychlor		ug/kg			50 50		10/02/20 18:50		
Toxaphene	<791	ug/kg	2630	791	50	10/01/20 15:08	10/02/20 18:50	8001-35-2	
Surrogates Tetrachloro-m-xylene (S)	129	%.	30-150		50	10/01/20 15:08	10/02/20 18:50	977 00 9	D3,v1
Decachlorobiphenyl (S)	146	%. %.	30-150		50	10/01/20 15:08	10/02/20 18:50		D3,V1
8082A GCS PCB	Analytical	Method: FPA	\ 8082A Prepa	aration Met	thod: FF	PA 3541			
000277 000 7 02	-		es - Green Bay						
PCB-1016 (Aroclor 1016)	<16.4	ug/kg	54.0	16.4	1	09/28/20 14:42	09/29/20 14:11	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.4	ug/kg	54.0	16.4	1	09/28/20 14:42			
PCB-1232 (Aroclor 1232)	<16.4	ug/kg	54.0	16.4	1	09/28/20 14:42			
PCB-1242 (Aroclor 1242)	<16.4	ug/kg	54.0	16.4	1	09/28/20 14:42			
PCB-1248 (Aroclor 1248)	<16.4	ug/kg	54.0	16.4	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254)	22.6J	ug/kg ug/kg	54.0	16.4	1	09/28/20 14:42			
PCB-1260 (Aroclor 1260)	<16.4	ug/kg ug/kg	54.0	16.4	1	09/28/20 14:42	09/29/20 14:11	11096-82-5	
PCB, Total	22.6J	ug/kg ug/kg	54.0	16.4	1	09/28/20 14:42			
Surrogates	22.00	ug/kg	34.0	10.4	'	03/20/20 14.42	03/23/20 14.11	1000 00 0	
Tetrachloro-m-xylene (S)	88	%	69-115		1	09/28/20 14:42	09/29/20 14:11	877-09-8	
Decachlorobiphenyl (S)	82	%	62-104		1		09/29/20 14:11		
6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepar	ation Meth	od: EPA	A 3050			
			es - Green Bay						
Arsenic	4.3	mg/kg	0.95	0.28	6.667	09/29/20 06:57	10/02/20 15:04	7440-38-2	
Barium	25.4	mg/kg	0.94	0.28		09/29/20 06:57			



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-1, 0.2-5.5' Lab ID: 40215420001 Collected: 09/23/20 13:10 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepar	ation Meth	od: EPA	A 3050			
	Pace Anal	ytical Service	es - Green Bay	•					
Cadmium	0.55J	mg/kg	0.72	0.10	6.667	09/29/20 06:57	10/02/20 15:04	7440-43-9	D3
Chromium	10.4	mg/kg	2.2	0.66	6.667		10/02/20 15:04		
Copper	23.5	mg/kg	1.9	0.58	6.667	09/29/20 06:57	10/02/20 15:04	7440-50-8	
Lead	18.2	mg/kg	0.72	0.20	6.667	09/29/20 06:57	10/02/20 15:04	7439-92-1	
Selenium	0.79	mg/kg	0.72	0.20		09/29/20 06:57			
Silver	0.23J	mg/kg	0.36	0.10	6.667	09/29/20 06:57	10/02/20 15:04	7440-22-4	D3
Zinc	62.5	mg/kg	25.1	7.5	6.667	09/29/20 06:57	10/02/20 15:04	7440-66-6	
7471 Mercury	Analytical	Method: EPA	A 7471 Prepar	ation Meth	od: EPA	A 7471			
	Pace Anal	ytical Service	es - Green Bay	,					
Mercury	0.028J	mg/kg	0.035	0.0099	1	10/07/20 09:07	10/08/20 09:55	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EPA	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Service	es - Green Bay	,					
Acenaphthene	29.8J	ug/kg	36.1	4.7	2	10/02/20 08:09	10/02/20 13:42	83-32-9	
Acenaphthylene	15.1J	ug/kg	36.1	4.6	2	10/02/20 08:09	10/02/20 13:42	208-96-8	
Anthracene	35.1J	ug/kg	36.1	4.5	2	10/02/20 08:09	10/02/20 13:42	120-12-7	
Benzo(a)anthracene	168	ug/kg	36.1	4.7	2	10/02/20 08:09	10/02/20 13:42	56-55-3	
Benzo(a)pyrene	254	ug/kg	36.1	4.1	2	10/02/20 08:09	10/02/20 13:42	50-32-8	
Benzo(b)fluoranthene	367	ug/kg	36.1	5.0	2	10/02/20 08:09	10/02/20 13:42	205-99-2	
Benzo(g,h,i)perylene	169	ug/kg	36.1	6.3	2	10/02/20 08:09	10/02/20 13:42	191-24-2	
Benzo(k)fluoranthene	145	ug/kg	36.1	4.6	2	10/02/20 08:09	10/02/20 13:42	207-08-9	
Chrysene	245	ug/kg	36.1	6.8	2	10/02/20 08:09	10/02/20 13:42	218-01-9	
Dibenz(a,h)anthracene	39.9	ug/kg	36.1	5.0	2	10/02/20 08:09	10/02/20 13:42	53-70-3	
Fluoranthene	381	ug/kg	36.1	4.3	2	10/02/20 08:09	10/02/20 13:42	206-44-0	
Fluorene	17.3J	ug/kg	36.1	4.3	2	10/02/20 08:09	10/02/20 13:42	86-73-7	
Indeno(1,2,3-cd)pyrene	139	ug/kg	36.1	7.5	2	10/02/20 08:09	10/02/20 13:42	193-39-5	
1-Methylnaphthalene	25.0J	ug/kg	36.1	5.3	2	10/02/20 08:09	10/02/20 13:42	90-12-0	
2-Methylnaphthalene	29.4J	ug/kg	36.1	5.3	2	10/02/20 08:09	10/02/20 13:42	91-57-6	
Naphthalene	24.4J	ug/kg	36.1	3.5	2	10/02/20 08:09	10/02/20 13:42	91-20-3	
Phenanthrene	138	ug/kg	36.1	4.1	2	10/02/20 08:09	10/02/20 13:42	85-01-8	
Pyrene	283	ug/kg	36.1	5.3	2	10/02/20 08:09	10/02/20 13:42	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	67	%	17-100		2	10/02/20 08:09	10/02/20 13:42	321-60-8	
Terphenyl-d14 (S)	72	%	17-98		2	10/02/20 08:09	10/02/20 13:42	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepar	ation Meth	od: EPA	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay	,					
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	75-35-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-1, 0.2-5.5' Lab ID: 40215420001 Collected: 09/23/20 13:10 Received: 09/25/20 15:12 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	N 8260 Prepa	ration Meth	od: EPA	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	у					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/05/20 09:00	10/05/20 14:47	87-61-6	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/05/20 09:00	10/05/20 14:47	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/05/20 09:00	10/05/20 14:47	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	95-63-6	W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/05/20 09:00	10/05/20 14:47	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 14:47	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 14:47	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	71-43-2	W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 14:47	108-86-1	W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/05/20 09:00	10/05/20 14:47	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	75-27-4	W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 14:47	75-25-2	W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/05/20 09:00	10/05/20 14:47	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	108-90-7	W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/05/20 09:00	10/05/20 14:47	75-00-3	W
Chloroform	<47.5	ug/kg	250	47.5	1	10/05/20 09:00	10/05/20 14:47	67-66-3	W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/05/20 09:00	10/05/20 14:47	74-87-3	W
Dibromochloromethane	<229	ug/kg	763	229	1	10/05/20 09:00	10/05/20 14:47	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 14:47	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/05/20 09:00	10/05/20 14:47	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	1634-04-4	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	10/05/20 09:00	10/05/20 14:47	75-09-2	W
Naphthalene	<27.3	ug/kg	91.0	27.3	1	10/05/20 09:00	10/05/20 14:47	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	10/05/20 09:00	10/05/20 14:47	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/05/20 09:00	10/05/20 14:47	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	75-01-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-1, 0.2-5.5' Lab ID: 40215420001 Collected: 09/23/20 13:10 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/05/20 09:00	10/05/20 14:47	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/05/20 09:00	10/05/20 14:47	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/05/20 09:00	10/05/20 14:47	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 14:47	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 14:47	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 14:47	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 14:47	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/05/20 09:00	10/05/20 14:47	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/05/20 09:00	10/05/20 14:47	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	94	%	58-145		1	10/05/20 09:00	10/05/20 14:47	1868-53-7	
Toluene-d8 (S)	94	%	56-140		1	10/05/20 09:00	10/05/20 14:47	2037-26-5	
4-Bromofluorobenzene (S)	83	%	52-137		1	10/05/20 09:00	10/05/20 14:47	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	7.4	%	0.10	0.10	1		09/28/20 14:01		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-4, 0.0-4.0' Lab ID: 40215420002 Collected: 09/23/20 15:15 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EPA	A 8081B Prepa	aration Me	thod: El	PA 3550			
	Pace Anal	ytical Service	es - Minneapol	is					
Aldrin	<5.6	ug/kg	18.5	5.6	10	10/01/20 15:08	10/02/20 15:45	309-00-2	
alpha-BHC	<2.4	ug/kg	7.9	2.4	10	10/01/20 15:08	10/02/20 15:45		
beta-BHC	<4.0	ug/kg	13.3	4.0	10	10/01/20 15:08	10/02/20 15:45		
delta-BHC	<3.0	ug/kg	10.1	3.0	10	10/01/20 15:08	10/02/20 15:45		
gamma-BHC (Lindane)	<2.2	ug/kg	7.3	2.2	10		10/02/20 15:45		
Chlordane (Technical)	<57.2	ug/kg	191	57.2	10	10/01/20 15:08	10/02/20 15:45		
alpha-Chlordane	<2.4	ug/kg	8.0	2.4	10	10/01/20 15:08	10/02/20 15:45		
gamma-Chlordane	<5.6	ug/kg ug/kg	18.6	5.6	10	10/01/20 15:08	10/02/20 15:45		
4,4'-DDD	<4.0	ug/kg ug/kg	13.4	4.0	10	10/01/20 15:08	10/02/20 15:45		
4,4'-DDE	<3.8	ug/kg ug/kg	12.6	3.8	10	10/01/20 15:08	10/02/20 15:45		
4,4'-DDT	<8.5	ug/kg ug/kg	28.2	8.5	10	10/01/20 15:08	10/02/20 15:45		
Dieldrin	<3.6	ug/kg ug/kg	12.0	3.6	10	10/01/20 15:08	10/02/20 15:45		
Endosulfan I	<2.9		9.7	2.9	10	10/01/20 15:08	10/02/20 15:45		
Endosulfan II	<2.9 <5.8	ug/kg	19.2	5.8	10	10/01/20 15:08	10/02/20 15:45		
	<7.0	ug/kg	23.1	7.0	10		10/02/20 15:45		
Endosulfan sulfate		ug/kg		4.0			10/02/20 15:45		
Endrin	<4.0	ug/kg	13.2		10	10/01/20 15:08			
Endrin aldehyde	<7.8	ug/kg	26.1	7.8	10	10/01/20 15:08	10/02/20 15:45		
Endrin ketone	<9.6	ug/kg	32.0	9.6	10	10/01/20 15:08	10/02/20 15:45		
Heptachlor	<3.9	ug/kg	13.0	3.9	10	10/01/20 15:08	10/02/20 15:45		
Heptachlor epoxide	<2.7	ug/kg	8.9	2.7	10	10/01/20 15:08	10/02/20 15:45		
Methoxychlor	<57.4	ug/kg	191	57.4	10	10/01/20 15:08	10/02/20 15:45		
Toxaphene	<154	ug/kg	512	154	10	10/01/20 15:08	10/02/20 15:45	8001-35-2	
Surrogates	100	0/	20.450		40	40/04/00 45:00	40/00/00 45:45	077 00 0	Do
Tetrachloro-m-xylene (S)	109	%.	30-150		10	10/01/20 15:08	10/02/20 15:45		D3
Decachlorobiphenyl (S)	130	%.	30-150		10	10/01/20 15:08	10/02/20 15:45	2051-24-3	
8082A GCS PCB	Analytical	Method: EPA	4 8082A Prepa	aration Me	thod: EF	PA 3541			
	Pace Anal	ytical Service	es - Green Bay	/					
PCB-1016 (Aroclor 1016)	<16.0	ug/kg	52.5	16.0	1	09/28/20 14:42	09/29/20 14:33	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.0	ug/kg ug/kg	52.5	16.0	1	09/28/20 14:42			
PCB-1232 (Aroclor 1232)	<16.0	ug/kg ug/kg	52.5	16.0	1	09/28/20 14:42			
PCB-1242 (Aroclor 1242)	<16.0	ug/kg ug/kg	52.5	16.0	1	09/28/20 14:42			
PCB-1248 (Aroclor 1248)	<16.0	ug/kg ug/kg	52.5	16.0	1	09/28/20 14:42			
,	21.8J		52.5 52.5	16.0	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254)	<16.0	ug/kg	52.5 52.5	16.0	1	09/28/20 14:42			
PCB-1260 (Aroclor 1260)		ug/kg	52.5 52.5						
PCB, Total Surrogates	21.8J	ug/kg	5∠.5	16.0	1	09/28/20 14:42	09/29/20 14:33	1330-30-3	
Tetrachloro-m-xylene (S)	88	%	69-115		1	09/28/20 14:42	09/29/20 14:33	877-09-8	
Decachlorobiphenyl (S)	84	%	62-104		1		09/29/20 14:33		
Decacilloropiphenyi (0)							03/23/20 14.33	2001-24-0	
6020 MET ICPMS			A 6020 Prepar es - Green Bay		od: EPA	A 3050			
		•	•						
Arsenic	2.6	mg/kg	0.91	0.27		09/29/20 06:57			
Barium	15.4	mg/kg	0.90	0.27	6.667	09/29/20 06:57	10/02/20 15:31	7440-39-3	



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-4, 0.0-4.0' Lab ID: 40215420002 Collected: 09/23/20 15:15 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EP	A 6020 Prepara	ation Meth	nod: EPA	A 3050			
	Pace Anal	ytical Servic	es - Green Bay						
Cadmium	0.29J	mg/kg	0.69	0.10	6.667	09/29/20 06:57	10/02/20 15:31	7440-43-9	D3
Chromium	9.6	mg/kg	2.1	0.63	6.667	09/29/20 06:57	10/02/20 15:31	7440-47-3	
Copper	33.6	mg/kg	1.8	0.55	6.667	09/29/20 06:57	10/02/20 15:31	7440-50-8	
Lead	50.9	mg/kg	0.69	0.19	6.667	09/29/20 06:57	10/02/20 15:31	7439-92-1	
Selenium	0.47J	mg/kg	0.69	0.19	6.667	09/29/20 06:57	10/02/20 15:31	7782-49-2	D3
Silver	0.11J	mg/kg	0.34	0.098	6.667	09/29/20 06:57	10/02/20 15:31	7440-22-4	D3
Zinc	83.8	mg/kg	24.0	7.2	6.667	09/29/20 06:57	10/02/20 15:31	7440-66-6	
7471 Mercury	Analytical	Method: EP	A 7471 Prepara	ation Meth	nod: EPA	7471			
	Pace Anal	ytical Servic	es - Green Bay						
Mercury	0.016J	mg/kg	0.036	0.010	1	10/07/20 09:07	10/08/20 09:57	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EP	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Servic	es - Green Bay						
Acenaphthene	<22.7	ug/kg	175	22.7	10	10/02/20 08:09	10/02/20 14:33	83-32-9	
Acenaphthylene	22.1J	ug/kg	175	22.0	10	10/02/20 08:09	10/02/20 14:33		
Anthracene	114J	ug/kg	175	21.7	10	10/02/20 08:09	10/02/20 14:33	120-12-7	
Benzo(a)anthracene	680	ug/kg	175	22.6	10	10/02/20 08:09	10/02/20 14:33	56-55-3	
Benzo(a)pyrene	960	ug/kg	175	19.8	10	10/02/20 08:09	10/02/20 14:33		
Benzo(b)fluoranthene	1410	ug/kg	175	24.3	10	10/02/20 08:09	10/02/20 14:33		
Benzo(g,h,i)perylene	593	ug/kg	175	30.7	10	10/02/20 08:09	10/02/20 14:33	191-24-2	
Benzo(k)fluoranthene	537	ug/kg	175	22.3	10	10/02/20 08:09	10/02/20 14:33	207-08-9	
Chrysene	951	ug/kg	175	32.9	10	10/02/20 08:09	10/02/20 14:33	218-01-9	
Dibenz(a,h)anthracene	157J	ug/kg	175	24.2	10	10/02/20 08:09	10/02/20 14:33	53-70-3	
Fluoranthene	1640	ug/kg	175	20.7	10	10/02/20 08:09	10/02/20 14:33	206-44-0	
Fluorene	21.0J	ug/kg	175	20.9	10		10/02/20 14:33		
Indeno(1,2,3-cd)pyrene	524	ug/kg	175	36.4	10	10/02/20 08:09	10/02/20 14:33		
1-Methylnaphthalene	<25.5	ug/kg	175	25.5	10	10/02/20 08:09	10/02/20 14:33		
2-Methylnaphthalene	<25.5	ug/kg	175	25.5	10	10/02/20 08:09	10/02/20 14:33		
Naphthalene	<17.0	ug/kg	175	17.0	10	10/02/20 08:09	10/02/20 14:33		
Phenanthrene	520	ug/kg	175	20.0	10	10/02/20 08:09	10/02/20 14:33	85-01-8	
Pyrene	1200	ug/kg	175	25.7	10	10/02/20 08:09	10/02/20 14:33	129-00-0	
Surrogates		0 0							
2-Fluorobiphenyl (S)	59	%	17-100		10	10/02/20 08:09	10/02/20 14:33	321-60-8	
Terphenyl-d14 (S)	66	%	17-98		10	10/02/20 08:09	10/02/20 14:33	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EP	A 8260 Prepara	ation Meth	nod: EPA	A 5035/5030B			
	Pace Anal	ytical Servic	es - Green Bay						
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1		10/05/20 20:36		W
		5 5		_					



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-4, 0.0-4.0' Lab ID: 40215420002 Collected: 09/23/20 15:15 Received: 09/25/20 15:12 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 Prepa	ration Meth	od: EP/	A 5035/5030B			
	Pace Anal	lytical Service	es - Green Ba	y					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/02/20 11:15	10/05/20 20:36	87-61-6	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/02/20 11:15	10/05/20 20:36	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/02/20 11:15	10/05/20 20:36	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36	95-63-6	W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/02/20 11:15	10/05/20 20:36		W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Bromoform	<25.0	ug/kg ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/02/20 11:15	10/05/20 20:36		W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/02/20 11:15	10/05/20 20:36		W
Chloroform	<47.5	ug/kg	250	47.5	1	10/02/20 11:15	10/05/20 20:36		W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Dibromochloromethane	<229	ug/kg	763	229	1	10/02/20 11:15	10/05/20 20:36		W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/02/20 11:15	10/05/20 20:36		W
Isopropylbenzene (Cumene)	<25.0	ug/kg ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Methyl-tert-butyl ether	<25.0	ug/kg ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Methylene Chloride	<26.3	ug/kg ug/kg	88.0	26.3	1		10/05/20 20:36		W
Naphthalene	<27.3	ug/kg ug/kg	91.0	27.3	1		10/05/20 20:36		W
Styrene	<27.3 <25.0	ug/kg ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Tetrachloroethene	<23.0 <38.7	ug/kg ug/kg	129	38.7	1		10/05/20 20:36		W
Toluene	<36.7 <25.0	ug/kg ug/kg	60.0	25.0	1	10/02/20 11:15			W
Trichloroethene	<25.0 <25.0	ug/kg ug/kg	60.0	25.0	1		10/05/20 20:36		W
Trichlorofluoromethane	<25.0 <25.0	ug/kg ug/kg	65.0	25.0	1	10/02/20 11:15	10/05/20 20:36		W
Vinyl chloride	<25.0 <25.0		60.0	25.0	1		10/05/20 20:36		W
viriyi chilonde	<23.0	ug/kg	0.00	25.0	1	10/02/20 11:15	10/05/20 20:36	75-01-4	vv



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-4, 0.0-4.0' Lab ID: 40215420002 Collected: 09/23/20 15:15 Received: 09/25/20 15:12 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 Prepar	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay	′					
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/02/20 11:15	10/05/20 20:36	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/02/20 11:15	10/05/20 20:36	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/02/20 11:15	10/05/20 20:36	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:36	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 20:36	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 20:36	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 20:36	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/02/20 11:15	10/05/20 20:36	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/02/20 11:15	10/05/20 20:36	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	88	%	58-145		1	10/02/20 11:15	10/05/20 20:36	1868-53-7	
Toluene-d8 (S)	89	%	56-140		1	10/02/20 11:15	10/05/20 20:36	2037-26-5	
4-Bromofluorobenzene (S)	76	%	52-137		1	10/02/20 11:15	10/05/20 20:36	460-00-4	
Percent Moisture	Analytical	Method: AST	TM D2974-87						
	Pace Anal	ytical Service	es - Green Bay	,					
Percent Moisture	4.4	%	0.10	0.10	1		09/28/20 14:01		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-6, 0.2-5.0' Lab ID: 40215420003 Collected: 09/23/20 17:02 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EPA	\ 8081B Prepa	aration Me	thod: El	PA 3550			
	Pace Anal	ytical Service	es - Minneapo	lis					
Aldrin	<2.9	ug/kg	9.6	2.9	5	10/01/20 15:08	10/02/20 14:31	309-00-2	
alpha-BHC	<1.2	ug/kg	4.1	1.2	5	10/01/20 15:08	10/02/20 14:31		
beta-BHC	<2.1	ug/kg	6.9	2.1	5	10/01/20 15:08	10/02/20 14:31		
delta-BHC	<1.6	ug/kg	5.2	1.6	5	10/01/20 15:08	10/02/20 14:31		
gamma-BHC (Lindane)	<1.1	ug/kg	3.8	1.1	5	10/01/20 15:08	10/02/20 14:31		
Chlordane (Technical)	<29.7	ug/kg	98.9	29.7	5	10/01/20 15:08	10/02/20 14:31		
alpha-Chlordane	<1.2	ug/kg	4.1	1.2	5	10/01/20 15:08	10/02/20 14:31		
gamma-Chlordane	<2.9	ug/kg	9.6	2.9	5	10/01/20 15:08	10/02/20 14:31		
4,4'-DDD	<2.1	ug/kg	6.9	2.1	5	10/01/20 15:08	10/02/20 14:31		
4,4'-DDE	<2.0	ug/kg	6.5	2.0	5	10/01/20 15:08	10/02/20 14:31		
4,4'-DDT	<4.4	ug/kg	14.6	4.4	5	10/01/20 15:08	10/02/20 14:31		
Dieldrin	6.1J	ug/kg ug/kg	6.2	1.9	5	10/01/20 15:08	10/02/20 14:31		
Endosulfan I	<1.5	ug/kg ug/kg	5.0	1.5	5	10/01/20 15:08	10/02/20 14:31		
Endosulfan II	<3.0	ug/kg ug/kg	9.9	3.0	5	10/01/20 15:08	10/02/20 14:31		
Endosulfan sulfate	<3.6	ug/kg ug/kg	12.0	3.6	5	10/01/20 15:08	10/02/20 14:31		
Endrin	<2.1	ug/kg ug/kg	6.8	2.1	5	10/01/20 15:08	10/02/20 14:31		
Endrin aldehyde	<4.1	ug/kg ug/kg	13.5	4.1	5	10/01/20 15:08	10/02/20 14:31		
Endrin ketone	12.1J		16.6	5.0	5	10/01/20 15:08	10/02/20 14:31		
		ug/kg					10/02/20 14:31		
Heptachlor	<2.0	ug/kg	6.7	2.0	5	10/01/20 15:08			
Heptachlor epoxide	<1.4	ug/kg	4.6	1.4	5	10/01/20 15:08	10/02/20 14:31 10/02/20 14:31		
Methoxychlor	<29.7	ug/kg	99.1	29.7	5	10/01/20 15:08			
Toxaphene	<79.8	ug/kg	266	79.8	5	10/01/20 15:08	10/02/20 14:31	8001-35-2	
Surrogates Tetraphlara manulana (C)	OF	0/	20.450		_	10/01/20 15:00	10/02/20 14:21	077 00 0	Do
Tetrachloro-m-xylene (S)	95 108	%.	30-150		5 5	10/01/20 15:08	10/02/20 14:31 10/02/20 14:31		D3
Decachlorobiphenyl (S)		%.	30-150			10/01/20 15:08	10/02/20 14.31	2051-24-3	
8082A GCS PCB	-		8082A Prepa		thod: EF	PA 3541			
	Pace Anal	ytical Service	es - Green Bay	/					
PCB-1016 (Aroclor 1016)	<16.4	ug/kg	54.0	16.4	1	09/30/20 12:23	10/01/20 20:49	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.4	ug/kg	54.0	16.4	1	09/30/20 12:23	10/01/20 20:49		
PCB-1232 (Aroclor 1232)	<16.4	ug/kg	54.0	16.4	1	09/30/20 12:23	10/01/20 20:49		
PCB-1242 (Aroclor 1242)	455	ug/kg	54.0	16.4	1	09/30/20 12:23	10/01/20 20:49		
PCB-1248 (Aroclor 1248)	<16.4	ug/kg ug/kg	54.0	16.4	1	09/30/20 12:23	10/01/20 20:49		
PCB-1254 (Aroclor 1254)	125	ug/kg ug/kg	54.0	16.4	1	09/30/20 12:23	10/01/20 20:49		
PCB-1260 (Aroclor 1260)	19.0J	ug/kg ug/kg	54.0	16.4	1	09/30/20 12:23	10/01/20 20:49		
PCB, Total	599	ug/kg ug/kg	54.0	16.4	1	09/30/20 12:23	10/01/20 20:49		
Surrogates	333	ug/kg	54.0	10.4	'	00/00/20 12.20	10/01/20 20.49	1000-00-0	
Tetrachloro-m-xylene (S)	84	%	69-115		1	09/30/20 12:23	10/01/20 20:49	877-09-8	
Decachlorobiphenyl (S)	82	%	62-104		1		10/01/20 20:49		
							.0,01,2020.40	_00.2-0	
6020 MET ICPMS	-		A 6020 Prepar es - Green Bay		od: EPA	A 3050			
Arsenic	4.0	mg/kg	0.95	0.28	6 667	09/29/20 06:57	10/02/20 15:44	7440-29 2	
		0 0							
Barium	44.3	mg/kg	0.94	0.28	0.067	09/29/20 06:57	10/02/20 15:44	1440-39-3	



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-6, 0.2-5.0' Lab ID: 40215420003 Collected: 09/23/20 17:02 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepara	ation Meth	od: EPA	3050			
	Pace Anal	ytical Service	es - Green Bay	,					
Cadmium	0.71J	mg/kg	0.72	0.10	6.667	09/29/20 06:57	10/02/20 15:44	7440-43-9	D3
Chromium	10.6	mg/kg	2.2	0.65	6.667	09/29/20 06:57	10/02/20 15:44		
Copper	34.8	mg/kg	1.9	0.58	6.667		10/02/20 15:44		
Lead	129	mg/kg	0.72	0.19	6.667		10/02/20 15:44		
Selenium	0.55J	mg/kg	0.72	0.20	6.667	09/29/20 06:57	10/02/20 15:44		D3
Silver	<0.10	mg/kg	0.36	0.10	6.667	09/29/20 06:57	10/02/20 15:44		D3
Zinc	1790	mg/kg	25.0	7.5	6.667	09/29/20 06:57			20
7471 Mercury	Analytical	Method: EPA	7471 Prepara	ation Meth	od: EPA	7471			
	Pace Anal	ytical Service	es - Green Bay	,					
Mercury	0.070	mg/kg	0.037	0.010	1	10/07/20 09:07	10/08/20 10:00	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EPA	8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Service	es - Green Bay	,					
Acenaphthene	8.0J	ug/kg	18.0	2.3	1	10/02/20 08:09	10/02/20 13:59	83-32-9	
Acenaphthylene	8.5J	ug/kg	18.0	2.3	1	10/02/20 08:09	10/02/20 13:59	208-96-8	
Anthracene	16.6J	ug/kg	18.0	2.2	1	10/02/20 08:09	10/02/20 13:59		
Benzo(a)anthracene	38.4	ug/kg	18.0	2.3	1	10/02/20 08:09	10/02/20 13:59	56-55-3	
Benzo(a)pyrene	41.9	ug/kg	18.0	2.0	1	10/02/20 08:09	10/02/20 13:59	50-32-8	
Benzo(b)fluoranthene	60.9	ug/kg	18.0	2.5	1		10/02/20 13:59		
Benzo(g,h,i)perylene	24.3	ug/kg	18.0	3.2	1	10/02/20 08:09	10/02/20 13:59		
Benzo(k)fluoranthene	22.9	ug/kg	18.0	2.3	1	10/02/20 08:09	10/02/20 13:59		
Chrysene	49.2	ug/kg	18.0	3.4	1	10/02/20 08:09	10/02/20 13:59	218-01-9	
Dibenz(a,h)anthracene	6.4J	ug/kg	18.0	2.5	1	10/02/20 08:09	10/02/20 13:59		
Fluoranthene	73.3	ug/kg	18.0	2.1	1		10/02/20 13:59		
Fluorene	11.3J	ug/kg	18.0	2.2	1	10/02/20 08:09	10/02/20 13:59		
Indeno(1,2,3-cd)pyrene	19.4	ug/kg	18.0	3.8	1	10/02/20 08:09	10/02/20 13:59		
1-Methylnaphthalene	47.7	ug/kg	18.0	2.6	1	10/02/20 08:09	10/02/20 13:59		
2-Methylnaphthalene	59.9	ug/kg	18.0	2.6	1	10/02/20 08:09	10/02/20 13:59		
Naphthalene	43.0	ug/kg	18.0	1.8	1	10/02/20 08:09	10/02/20 13:59		
Phenanthrene	70.4	ug/kg	18.0	2.1	1	10/02/20 08:09	10/02/20 13:59		
Pyrene	<2.7	ug/kg	18.0	2.7	1	10/02/20 08:09	10/02/20 13:59		
Surrogates		-9/19							
2-Fluorobiphenyl (S)	44	%	17-100		1	10/02/20 08:09	10/02/20 13:59	321-60-8	
Terphenyl-d14 (S)	48	%	17-98		1	10/02/20 08:09	10/02/20 13:59	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EPA	8260 Prepara	ation Meth	od: EPA	5035/5030B			
			es - Green Bay						
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	75-35-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-6, 0.2-5.0' Lab ID: 40215420003 Collected: 09/23/20 17:02 Received: 09/25/20 15:12 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 Prepa	ration Meth	od: EP/	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	у					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/02/20 11:15	10/05/20 23:27		W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/02/20 11:15	10/05/20 23:27		W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/02/20 11:15	10/05/20 23:27	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27		W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/02/20 11:15	10/05/20 23:27	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 23:27	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 23:27	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	71-43-2	W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 23:27	108-86-1	W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/02/20 11:15	10/05/20 23:27	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	75-27-4	W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 23:27	75-25-2	W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/02/20 11:15	10/05/20 23:27	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	108-90-7	W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/02/20 11:15	10/05/20 23:27	75-00-3	W
Chloroform	<47.5	ug/kg	250	47.5	1	10/02/20 11:15	10/05/20 23:27	67-66-3	W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/02/20 11:15	10/05/20 23:27	74-87-3	W
Dibromochloromethane	<229	ug/kg	763	229	1	10/02/20 11:15	10/05/20 23:27	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 23:27	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/02/20 11:15	10/05/20 23:27	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27		W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	1634-04-4	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	10/02/20 11:15	10/05/20 23:27	75-09-2	W
Naphthalene	<27.3	ug/kg	91.0	27.3	1	10/02/20 11:15	10/05/20 23:27	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	10/02/20 11:15	10/05/20 23:27	127-18-4	W
Toluene	58.3J	ug/kg	64.8	27.0	1	10/02/20 11:15	10/05/20 23:27	108-88-3	
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/02/20 11:15	10/05/20 23:27	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	75-01-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-6, 0.2-5.0' Lab ID: 40215420003 Collected: 09/23/20 17:02 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Ana	lytical Service	es - Green Bay	•					
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/02/20 11:15	10/05/20 23:27	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/02/20 11:15	10/05/20 23:27	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/02/20 11:15	10/05/20 23:27	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 23:27	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 23:27	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 23:27	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 23:27	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/02/20 11:15	10/05/20 23:27	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/02/20 11:15	10/05/20 23:27	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	94	%	58-145		1	10/02/20 11:15	10/05/20 23:27	1868-53-7	
Toluene-d8 (S)	98	%	56-140		1	10/02/20 11:15	10/05/20 23:27	2037-26-5	
4-Bromofluorobenzene (S)	84	%	52-137		1	10/02/20 11:15	10/05/20 23:27	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Ana	lytical Service	es - Green Bay	,					
Percent Moisture	7.5	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-10, 0.3-4.0' Lab ID: 40215420004 Collected: 09/23/20 12:05 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EPA	A 8081B Prep	aration Me	thod: El	PA 3550			
	Pace Anal	ytical Servic	es - Minneapo	lis					
Aldrin	<29.1	ug/kg	96.7	29.1	50	10/01/20 15:08	10/02/20 18:32	309-00-2	
alpha-BHC	<12.4	ug/kg	41.4	12.4	50	10/01/20 15:08	10/02/20 18:32		
beta-BHC	<20.9	ug/kg	69.4	20.9	50	10/01/20 15:08	10/02/20 18:32		
delta-BHC	<15.9	ug/kg	52.8	15.9	50	10/01/20 15:08	10/02/20 18:32		
gamma-BHC (Lindane)	<11.5	ug/kg	38.3	11.5	50		10/02/20 18:32		
Chlordane (Technical)	<299	ug/kg	996	299	50	10/01/20 15:08	10/02/20 18:32		
alpha-Chlordane	<12.5	ug/kg ug/kg	41.8	12.5	50	10/01/20 15:08	10/02/20 18:32		
gamma-Chlordane	<29.2	ug/kg ug/kg	97.1	29.2	50	10/01/20 15:08	10/02/20 18:32		
4,4'-DDD	<21.0	ug/kg ug/kg	70.0	21.0	50	10/01/20 15:08	10/02/20 18:32		
4,4'-DDE	<19.7	ug/kg ug/kg	65.6	19.7	50	10/01/20 15:08	10/02/20 18:32		
4,4'-DDT	<44.3	ug/kg ug/kg	147	44.3	50	10/01/20 15:08	10/02/20 18:32		
Dieldrin	<18.9	ug/kg ug/kg	62.9	18.9	50	10/01/20 15:08	10/02/20 18:32		
Endosulfan I	<15.2		50.5	15.2	50	10/01/20 15:08	10/02/20 18:32		
Endosulfan II	<15.2 <30.1	ug/kg	100	30.1	50	10/01/20 15:08	10/02/20 18:32		
	<36.3	ug/kg	121	36.3	50	10/01/20 15:08	10/02/20 18:32		
Endosulfan sulfate		ug/kg					10/02/20 18:32		
Endrin	<20.7	ug/kg	68.9	20.7	50	10/01/20 15:08			
Endrin aldehyde	<40.9	ug/kg	136	40.9	50	10/01/20 15:08	10/02/20 18:32		
Endrin ketone	<50.2	ug/kg	167	50.2	50	10/01/20 15:08	10/02/20 18:32		
Heptachlor	<20.4	ug/kg	68.0	20.4	50	10/01/20 15:08	10/02/20 18:32		
Heptachlor epoxide	<14.0	ug/kg	46.7	14.0	50	10/01/20 15:08	10/02/20 18:32		
Methoxychlor	<300	ug/kg	998	300	50	10/01/20 15:08	10/02/20 18:32		
Toxaphene	<804	ug/kg	2680	804	50	10/01/20 15:08	10/02/20 18:32	8001-35-2	
Surrogates	400	0/	20.450		50	40/04/00 45:00	40/00/00 40:00	077 00 0	D24
Tetrachloro-m-xylene (S)	132	%.	30-150		50	10/01/20 15:08	10/02/20 18:32		D3,v1
Decachlorobiphenyl (S)	136	%.	30-150		50	10/01/20 15:08	10/02/20 18:32	2051-24-3	
8082A GCS PCB	Analytical	Method: EP/	4 8082A Prepa	aration Me	thod: EF	PA 3541			
	Pace Anal	ytical Service	es - Green Ba	y					
PCB-1016 (Aroclor 1016)	<16.5	ug/kg	54.2	16.5	1	09/28/20 14:42	09/29/20 15:17	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.5	ug/kg ug/kg	54.2	16.5	1	09/28/20 14:42			
PCB-1232 (Aroclor 1232)	<16.5	ug/kg ug/kg	54.2	16.5	1	09/28/20 14:42			
PCB-1242 (Aroclor 1242)	<16.5	ug/kg ug/kg	54.2	16.5	1	09/28/20 14:42			
PCB-1248 (Aroclor 1248)	<16.5	ug/kg ug/kg	54.2	16.5	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254)	35.0J	ug/kg ug/kg	54.2	16.5	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254) PCB-1260 (Aroclor 1260)	32.2J	ug/kg ug/kg	54.2	16.5	1	09/28/20 14:42			
PCB, Total	67.2	ug/kg ug/kg	54.2	16.5	1	09/28/20 14:42			
Surrogates	07.2	ug/kg	34.2	10.5	'	09/20/20 14.42	09/29/20 13.17	1330-30-3	
Tetrachloro-m-xylene (S)	92	%	69-115		1	09/28/20 14:42	09/29/20 15:17	877-09-8	
Decachlorobiphenyl (S)	84	%	62-104		1		09/29/20 15:17		
							10,10,10		
6020 MET ICPMS			A 6020 Prepai es - Green Ba		od: EPA	A 3050			
Arsenic	3.5	•	0.93	0.28	6 667	00/20/20 06:57	10/02/20 15:51	7440-29 2	
	3.5 22.4	mg/kg				09/29/20 06:57			
Barium	22.4	mg/kg	0.93	0.28	0.007	09/29/20 06:57	10/02/20 15:51	1440-39-3	



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-10, 0.3-4.0' Lab ID: 40215420004 Collected: 09/23/20 12:05 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepara	ation Meth	nod: EPA	3050			
	Pace Anal	ytical Service	es - Green Bay	,					
Cadmium	0.12J	mg/kg	0.71	0.10	6.667	09/29/20 06:57	10/02/20 15:51	7440-43-9	D3
Chromium	12.4	mg/kg	2.1	0.64	6.667	09/29/20 06:57	10/02/20 15:51	7440-47-3	
Copper	29.0	mg/kg	1.9	0.57	6.667	09/29/20 06:57	10/02/20 15:51	7440-50-8	
Lead	21.5	mg/kg	0.71	0.19	6.667	09/29/20 06:57	10/02/20 15:51	7439-92-1	
Selenium	0.59J	mg/kg	0.71	0.19	6.667	09/29/20 06:57	10/02/20 15:51	7782-49-2	D3
Silver	<0.10	mg/kg	0.35	0.10	6.667	09/29/20 06:57	10/02/20 15:51	7440-22-4	D3
Zinc	56.5	mg/kg	24.6	7.4	6.667	09/29/20 06:57	10/02/20 15:51	7440-66-6	
7471 Mercury	Analytical	Method: EPA	A 7471 Prepara	ation Meth	nod: EPA	7471			
	Pace Anal	ytical Service	es - Green Bay	,					
Mercury	0.038	mg/kg	0.037	0.010	1	10/07/20 09:07	10/08/20 10:02	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EPA	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Service	es - Green Bay	,					
Acenaphthene	5.8J	ug/kg	18.2	2.4	1	10/02/20 08:09	10/02/20 14:16	83-32-9	
Acenaphthylene	37.2	ug/kg	18.2	2.3	1		10/02/20 14:16		
Anthracene	32.7	ug/kg	18.2	2.3	1	10/02/20 08:09	10/02/20 14:16		
Benzo(a)anthracene	100	ug/kg	18.2	2.3	1	10/02/20 08:09	10/02/20 14:16	56-55-3	
Benzo(a)pyrene	166	ug/kg	18.2	2.1	1	10/02/20 08:09	10/02/20 14:16	50-32-8	
Benzo(b)fluoranthene	186	ug/kg	18.2	2.5	1	10/02/20 08:09	10/02/20 14:16	205-99-2	
Benzo(g,h,i)perylene	96.3	ug/kg	18.2	3.2	1	10/02/20 08:09	10/02/20 14:16	191-24-2	
Benzo(k)fluoranthene	92.0	ug/kg	18.2	2.3	1	10/02/20 08:09	10/02/20 14:16		
Chrysene	114	ug/kg	18.2	3.4	1	10/02/20 08:09	10/02/20 14:16	218-01-9	
Dibenz(a,h)anthracene	22.8	ug/kg	18.2	2.5	1	10/02/20 08:09	10/02/20 14:16	53-70-3	
Fluoranthene	142	ug/kg	18.2	2.1	1	10/02/20 08:09		206-44-0	
Fluorene	5.4J	ug/kg	18.2	2.2	1		10/02/20 14:16	86-73-7	
Indeno(1,2,3-cd)pyrene	84.4	ug/kg	18.2	3.8	1	10/02/20 08:09	10/02/20 14:16	193-39-5	
1-Methylnaphthalene	26.1	ug/kg	18.2	2.7	1	10/02/20 08:09	10/02/20 14:16	90-12-0	
2-Methylnaphthalene	35.8	ug/kg	18.2	2.7	1	10/02/20 08:09	10/02/20 14:16	91-57-6	
Naphthalene	31.8	ug/kg	18.2	1.8	1	10/02/20 08:09	10/02/20 14:16	91-20-3	
Phenanthrene	49.5	ug/kg	18.2	2.1	1	10/02/20 08:09	10/02/20 14:16	85-01-8	
Pyrene	152	ug/kg	18.2	2.7	1	10/02/20 08:09	10/02/20 14:16		
Surrogates		0 0							
2-Fluorobiphenyl (S)	66	%	17-100		1	10/02/20 08:09	10/02/20 14:16	321-60-8	
Terphenyl-d14 (S)	68	%	17-98		1	10/02/20 08:09	10/02/20 14:16	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepara	ation Meth	nod: EPA	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay	,					
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1		10/05/20 20:53		W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-10, 0.3-4.0' Lab ID: 40215420004 Collected: 09/23/20 12:05 Received: 09/25/20 15:12 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 Prepa	ration Meth	od: EPA	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	y					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/02/20 11:15	10/05/20 20:53		W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/02/20 11:15	10/05/20 20:53	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/02/20 11:15	10/05/20 20:53	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/02/20 11:15	10/05/20 20:53	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/02/20 11:15	10/05/20 20:53		W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/02/20 11:15	10/05/20 20:53		W
Chloroform	<47.5	ug/kg	250	47.5	1	10/02/20 11:15	10/05/20 20:53		W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Dibromochloromethane	<229	ug/kg	763	229	1	10/02/20 11:15	10/05/20 20:53		W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/02/20 11:15	10/05/20 20:53		W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	1634-04-4	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	10/02/20 11:15	10/05/20 20:53	75-09-2	W
Naphthalene	<27.3	ug/kg	91.0	27.3	1		10/05/20 20:53		W
Styrene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1		10/05/20 20:53		W
Toluene	<25.0	ug/kg	60.0	25.0	1		10/05/20 20:53		W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1		10/05/20 20:53		W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/02/20 11:15	10/05/20 20:53		W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1		10/05/20 20:53		W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-10, 0.3-4.0' Lab ID: 40215420004 Collected: 09/23/20 12:05 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Ana	lytical Service	es - Green Bay	•					
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/02/20 11:15	10/05/20 20:53	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/02/20 11:15	10/05/20 20:53	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/02/20 11:15	10/05/20 20:53	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 20:53	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 20:53	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 20:53	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 20:53	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/02/20 11:15	10/05/20 20:53	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/02/20 11:15	10/05/20 20:53	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	91	%	58-145		1	10/02/20 11:15	10/05/20 20:53	1868-53-7	
Toluene-d8 (S)	94	%	56-140		1	10/02/20 11:15	10/05/20 20:53	2037-26-5	
4-Bromofluorobenzene (S)	78	%	52-137		1	10/02/20 11:15	10/05/20 20:53	460-00-4	
Percent Moisture	Analytical	Method: AS	ΓM D2974-87						
	Pace Ana	lytical Service	es - Green Bay	,					
Percent Moisture	8.1	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-11, 0.3-4.5' Lab ID: 40215420005 Collected: 09/23/20 11:14 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EPA	A 8081B Prep	aration Me	thod: El	PA 3550			
	Pace Anal	ytical Servic	es - Minneapo	lis					
Aldrin	<29.2	ug/kg	97.3	29.2	50	10/01/20 15:08	10/02/20 19:08	309-00-2	
alpha-BHC	<12.5	ug/kg	41.6	12.5	50	10/01/20 15:08	10/02/20 19:08		
beta-BHC	<21.0	ug/kg	69.8	21.0	50	10/01/20 15:08	10/02/20 19:08		
delta-BHC	<15.9	ug/kg	53.1	15.9	50	10/01/20 15:08	10/02/20 19:08		
gamma-BHC (Lindane)	<11.6	ug/kg	38.6	11.6	50	10/01/20 15:08	10/02/20 19:08		
Chlordane (Technical)	<301	ug/kg	1000	301	50	10/01/20 15:08	10/02/20 19:08		
alpha-Chlordane	<12.6	ug/kg	42.0	12.6	50	10/01/20 15:08	10/02/20 19:08		
gamma-Chlordane	<29.3	ug/kg	97.7	29.3	50	10/01/20 15:08	10/02/20 19:08		
4,4'-DDD	<21.1	ug/kg	70.4	21.1	50	10/01/20 15:08	10/02/20 19:08		
4,4'-DDE	<19.8	ug/kg	66.0	19.8	50	10/01/20 15:08	10/02/20 19:08		
4,4'-DDT	<44.5	ug/kg	148	44.5	50	10/01/20 15:08	10/02/20 19:08		
Dieldrin	<19.0	ug/kg	63.3	19.0	50	10/01/20 15:08	10/02/20 19:08		
Endosulfan I	<15.2	ug/kg	50.7	15.2	50	10/01/20 15:08	10/02/20 19:08		
Endosulfan II	<30.3	ug/kg	101	30.3	50	10/01/20 15:08	10/02/20 19:08		
Endosulfan sulfate	<36.5	ug/kg ug/kg	122	36.5	50	10/01/20 15:08	10/02/20 19:08		
Endrin	<20.8	ug/kg ug/kg	69.3	20.8	50	10/01/20 15:08	10/02/20 19:08		
Endrin aldehyde	<41.1	ug/kg ug/kg	137	41.1	50	10/01/20 15:08	10/02/20 19:08		
Endrin ketone	<50.5	ug/kg ug/kg	168	50.5	50	10/01/20 15:08	10/02/20 19:08		
Heptachlor	<20.5	ug/kg ug/kg	68.4	20.5	50	10/01/20 15:08	10/02/20 19:08		
Heptachlor epoxide	<14.1	ug/kg ug/kg	46.9	14.1	50	10/01/20 15:08	10/02/20 19:08		
Methoxychlor	<301	ug/kg ug/kg	1000	301	50	10/01/20 15:08	10/02/20 19:08		
Toxaphene	<808	ug/kg ug/kg	2690	808	50	10/01/20 15:08	10/02/20 19:08		
Surrogates	4000	ug/kg	2000	000	00	10/01/20 10:00	10/02/20 10:00	0001 00 2	
Tetrachloro-m-xylene (S)	125	%.	30-150		50	10/01/20 15:08	10/02/20 19:08	877-09-8	D3,v1
Decachlorobiphenyl (S)	153	%.	30-150		50	10/01/20 15:08			S4
8082A GCS PCB	Analytical	Method: EP/	A 8082A Prepa	aration Me	thod: EF	PA 3541			
	Pace Anal	ytical Servic	es - Green Ba	y					
PCB-1016 (Aroclor 1016)	<16.7	ug/kg	54.8	16.7	1	09/28/20 14:42	09/29/20 13:27	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.7	ug/kg ug/kg	54.8	16.7	1	09/28/20 14:42	09/29/20 13:27		
PCB-1232 (Aroclor 1232)	<16.7	ug/kg	54.8	16.7	1	09/28/20 14:42			
PCB-1242 (Aroclor 1242)	<16.7	ug/kg	54.8	16.7	1	09/28/20 14:42			
PCB-1248 (Aroclor 1248)	<16.7	ug/kg	54.8	16.7	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254)	25.4J	ug/kg ug/kg	54.8	16.7	1	09/28/20 14:42			
PCB-1260 (Aroclor 1260)	<16.7	ug/kg ug/kg	54.8	16.7	1	09/28/20 14:42			
PCB, Total	25.4J	ug/kg	54.8	16.7	1		09/29/20 13:27		
Surrogates	20110	ug/ng	01.0	10.7	•	00/20/20 11:12	00/20/20 10:21	1000 00 0	
Tetrachloro-m-xylene (S)	89	%	69-115		1	09/28/20 14:42	09/29/20 13:27	877-09-8	
Decachlorobiphenyl (S)	84	%	62-104		1	09/28/20 14:42	09/29/20 13:27	2051-24-3	
6020 MET ICPMS			A 6020 Prepai		nod: EPA	A 3050			
	Pace Anal	ytical Servic	es - Green Ba	y					
Arsenic	4.0	mg/kg	0.95	0.29	6.667	09/29/20 06:57	10/02/20 16:12	7440-38-2	
Barium	34.4	mg/kg	0.94	0.28		09/29/20 06:57			
	V T	9''\9	0.0 7	0.20	5.557	50,20,20 00.07	. 0, 02, 20 10.12		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-11, 0.3-4.5' Lab ID: 40215420005 Collected: 09/23/20 11:14 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepara	ation Meth	nod: EPA	A 3050			
	Pace Anal	ytical Servic	es - Green Bay	,					
Cadmium	<0.11	mg/kg	0.72	0.11	6.667	09/29/20 06:57	10/02/20 16:12	7440-43-9	D3
Chromium	14.9	mg/kg	2.2	0.66	6.667	09/29/20 06:57	10/02/20 16:12	7440-47-3	
Copper	26.7	mg/kg	1.9	0.58	6.667	09/29/20 06:57	10/02/20 16:12	7440-50-8	
Lead	28.5	mg/kg	0.72	0.20	6.667	09/29/20 06:57	10/02/20 16:12	7439-92-1	
Selenium	0.55J	mg/kg	0.72	0.20	6.667	09/29/20 06:57	10/02/20 16:12	7782-49-2	D3
Silver	<0.10	mg/kg	0.36	0.10	6.667	09/29/20 06:57	10/02/20 16:12	7440-22-4	D3
Zinc	110	mg/kg	25.1	7.5	6.667	09/29/20 06:57	10/02/20 16:12	7440-66-6	
7471 Mercury	Analytical	Method: EP/	A 7471 Prepara	ation Meth	nod: EPA	A 7471			
	Pace Anal	ytical Servic	es - Green Bay	,					
Mercury	0.028J	mg/kg	0.038	0.011	1	10/07/20 09:07	10/08/20 10:09	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EP/	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Servic	es - Green Bay	,					
Acenaphthene	<23.8	ug/kg	184	23.8	10	10/02/20 08:09	10/02/20 14:51	83-32-9	
Acenaphthylene	111J	ug/kg	184	23.1	10	10/02/20 08:09	10/02/20 14:51		
Anthracene	291	ug/kg	184	22.8	10	10/02/20 08:09	10/02/20 14:51	120-12-7	
Benzo(a)anthracene	490	ug/kg	184	23.7	10	10/02/20 08:09	10/02/20 14:51	56-55-3	
Benzo(a)pyrene	546	ug/kg	184	20.9	10	10/02/20 08:09	10/02/20 14:51		
Benzo(b)fluoranthene	746	ug/kg	184	25.5	10	10/02/20 08:09	10/02/20 14:51		
Benzo(g,h,i)perylene	263	ug/kg	184	32.2	10	10/02/20 08:09	10/02/20 14:51		
Benzo(k)fluoranthene	293	ug/kg	184	23.5	10	10/02/20 08:09	10/02/20 14:51	207-08-9	
Chrysene	546	ug/kg	184	34.6	10	10/02/20 08:09	10/02/20 14:51	218-01-9	
Dibenz(a,h)anthracene	77.2J	ug/kg	184	25.4	10	10/02/20 08:09	10/02/20 14:51	53-70-3	
Fluoranthene	1240	ug/kg	184	21.7	10	10/02/20 08:09	10/02/20 14:51	206-44-0	
Fluorene	56.4J	ug/kg	184	22.0	10		10/02/20 14:51		
Indeno(1,2,3-cd)pyrene	251	ug/kg	184	38.3	10	10/02/20 08:09	10/02/20 14:51		
1-Methylnaphthalene	<26.8	ug/kg	184	26.8	10	10/02/20 08:09	10/02/20 14:51	90-12-0	
2-Methylnaphthalene	<26.9	ug/kg	184	26.9	10	10/02/20 08:09	10/02/20 14:51	91-57-6	
Naphthalene	29.4J	ug/kg	184	17.9	10	10/02/20 08:09	10/02/20 14:51	91-20-3	
Phenanthrene	849	ug/kg	184	21.0	10	10/02/20 08:09	10/02/20 14:51	85-01-8	
Pyrene	854	ug/kg	184	27.0	10	10/02/20 08:09	10/02/20 14:51	129-00-0	
Surrogates		0 0							
2-Fluorobiphenyl (S)	60	%	17-100		10	10/02/20 08:09	10/02/20 14:51	321-60-8	
Terphenyl-d14 (S)	67	%	17-98		10	10/02/20 08:09	10/02/20 14:51	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EP/	A 8260 Prepara	ation Meth	nod: EPA	A 5035/5030B			
	Pace Anal	ytical Servic	es - Green Bay	,					
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10		W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-11, 0.3-4.5' Lab ID: 40215420005 Collected: 09/23/20 11:14 Received: 09/25/20 15:12 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 Prepa	ration Meth	od: EP/	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	у					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/02/20 11:15	10/05/20 21:10		W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/02/20 11:15	10/05/20 21:10	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/02/20 11:15	10/05/20 21:10	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	95-63-6	W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/02/20 11:15	10/05/20 21:10	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 21:10	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 21:10	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	71-43-2	W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 21:10	108-86-1	W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/02/20 11:15	10/05/20 21:10	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	75-27-4	W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 21:10	75-25-2	W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/02/20 11:15	10/05/20 21:10	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	108-90-7	W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/02/20 11:15	10/05/20 21:10	75-00-3	W
Chloroform	<47.5	ug/kg	250	47.5	1	10/02/20 11:15	10/05/20 21:10	67-66-3	W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/02/20 11:15	10/05/20 21:10	74-87-3	W
Dibromochloromethane	<229	ug/kg	763	229	1	10/02/20 11:15	10/05/20 21:10	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 21:10	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/02/20 11:15	10/05/20 21:10	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	1634-04-4	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	10/02/20 11:15	10/05/20 21:10	75-09-2	W
Naphthalene	<27.3	ug/kg	91.0	27.3	1	10/02/20 11:15	10/05/20 21:10	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	10/02/20 11:15	10/05/20 21:10	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/02/20 11:15	10/05/20 21:10	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	75-01-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-11, 0.3-4.5' Lab ID: 40215420005 Collected: 09/23/20 11:14 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/02/20 11:15	10/05/20 21:10	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/02/20 11:15	10/05/20 21:10	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/02/20 11:15	10/05/20 21:10	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:10	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 21:10	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 21:10	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 21:10	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/02/20 11:15	10/05/20 21:10	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/02/20 11:15	10/05/20 21:10	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	91	%	58-145		1	10/02/20 11:15	10/05/20 21:10	1868-53-7	
Toluene-d8 (S)	93	%	56-140		1	10/02/20 11:15	10/05/20 21:10	2037-26-5	
4-Bromofluorobenzene (S)	79	%	52-137		1	10/02/20 11:15	10/05/20 21:10	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	9.1	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-3, 0.1-4.0' Lab ID: 40215420006 Collected: 09/24/20 08:36 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EPA	\ 8081B Prep	aration Me	thod: El	PA 3550			
	Pace Anal	ytical Service	es - Minneapo	lis					
Aldrin	<6.2	ug/kg	20.6	6.2	10	10/01/20 15:08	10/06/20 17:43	309-00-2	
alpha-BHC	<2.7	ug/kg	8.8	2.7	10	10/01/20 15:08	10/06/20 17:43		
beta-BHC	<4.4	ug/kg	14.8	4.4	10	10/01/20 15:08	10/06/20 17:43		
delta-BHC	<3.4	ug/kg	11.3	3.4	10	10/01/20 15:08	10/06/20 17:43		
gamma-BHC (Lindane)	<2.5	ug/kg	8.2	2.5	10	10/01/20 15:08	10/06/20 17:43		
Chlordane (Technical)	<63.8	ug/kg	212	63.8	10	10/01/20 15:08	10/06/20 17:43		
alpha-Chlordane	<2.7	ug/kg	8.9	2.7	10	10/01/20 15:08	10/06/20 17:43		
gamma-Chlordane	<6.2	ug/kg	20.7	6.2	10	10/01/20 15:08	10/06/20 17:43		
4,4'-DDD	9.7J	ug/kg	14.9	4.5	10	10/01/20 15:08	10/06/20 17:43		
4,4'-DDE	11.5J	ug/kg	14.0	4.2	10	10/01/20 15:08	10/06/20 17:43		
4,4'-DDT	<9.4	ug/kg	31.4	9.4	10	10/01/20 15:08	10/06/20 17:43		
Dieldrin	5.2J	ug/kg	13.4	4.0	10	10/01/20 15:08	10/06/20 17:43		
Endosulfan I	<3.2	ug/kg	10.8	3.2	10	10/01/20 15:08	10/06/20 17:43		
Endosulfan II	<6.4	ug/kg	21.4	6.4	10	10/01/20 15:08	10/06/20 17:43		
Endosulfan sulfate	<7.7	ug/kg ug/kg	25.8	7.7	10	10/01/20 15:08	10/06/20 17:43		
Endrin	<4.4	ug/kg	14.7	4.4	10	10/01/20 15:08	10/06/20 17:43		
Endrin aldehyde	<8.7	ug/kg	29.0	8.7	10	10/01/20 15:08	10/06/20 17:43		
Endrin ketone	<10.7	ug/kg ug/kg	35.6	10.7	10	10/01/20 15:08	10/06/20 17:43		
Heptachlor	<4.4	ug/kg ug/kg	14.5	4.4	10	10/01/20 15:08	10/06/20 17:43		
Heptachlor epoxide	<3.0	ug/kg ug/kg	9.9	3.0	10	10/01/20 15:08	10/06/20 17:43		
Methoxychlor	<63.9	ug/kg ug/kg	213	63.9	10	10/01/20 15:08	10/06/20 17:43		
Toxaphene	<171	ug/kg ug/kg	570	171	10	10/01/20 15:08	10/06/20 17:43		
Surrogates	\$171	ug/Ng	010	.,,	10	10/01/20 10:00	10/00/20 17.40	0001 00 2	
Tetrachloro-m-xylene (S)	94	%.	30-150		10	10/01/20 15:08	10/06/20 17:43	877-09-8	D3
Decachlorobiphenyl (S)	111	%.	30-150		10	10/01/20 15:08	10/06/20 17:43		
8082A GCS PCB	Analytical	Method: EPA	A 8082A Prep	aration Me	thod: EF	PA 3541			
	Pace Anal	ytical Service	es - Green Ba	y					
PCB-1016 (Aroclor 1016)	<17.7	ug/kg	58.2	17.7	1	09/28/20 14:42	09/29/20 15:39	12674-11-2	
PCB-1221 (Aroclor 1221)	<17.7	ug/kg	58.2	17.7	1	09/28/20 14:42	09/29/20 15:39		
PCB-1232 (Aroclor 1232)	<17.7	ug/kg	58.2	17.7	1		09/29/20 15:39		
PCB-1242 (Aroclor 1242)	22.2J	ug/kg	58.2	17.7	1	09/28/20 14:42			
PCB-1248 (Aroclor 1248)	<17.7	ug/kg	58.2	17.7	1		09/29/20 15:39		
PCB-1254 (Aroclor 1254)	62.6	ug/kg	58.2	17.7	1		09/29/20 15:39		
PCB-1260 (Aroclor 1260)	55.9J	ug/kg	58.2	17.7	1	09/28/20 14:42	09/29/20 15:39		
PCB, Total	141	ug/kg	58.2	17.7	1		09/29/20 15:39		
Surrogates	-	5 5							
Tetrachloro-m-xylene (S)	87	%	69-115		1	09/28/20 14:42	09/29/20 15:39	877-09-8	
Decachlorobiphenyl (S)	83	%	62-104		1	09/28/20 14:42	09/29/20 15:39	2051-24-3	
6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepa	ration Meth	nod: EPA	A 3050			
	Pace Anal	ytical Service	es - Green Ba	у					
Arsenic	325	mg/kg	0.98	0.29	6.667	09/29/20 06:57	10/02/20 16:18	7440-38-2	
Barium	160	mg/kg	0.98			09/29/20 06:57			
Dandin	100	mg/ng	0.50	0.23	0.007	55/25/20 00.01	10/02/20 10.10	0 00 0	



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-3, 0.1-4.0' Lab ID: 40215420006 Collected: 09/24/20 08:36 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EP	A 6020 Prepara	ation Meth	od: EPA	3050			
	Pace Anal	ytical Servic	es - Green Bay						
Cadmium	1.4	mg/kg	0.74	0.11	6.667	09/29/20 06:57	10/02/20 16:18	7440-43-9	
Chromium	32.4	mg/kg	2.3	0.68	6.667	09/29/20 06:57	10/02/20 16:18		
Copper	366	mg/kg	2.0	0.60	6.667	09/29/20 06:57	10/02/20 16:18	7440-50-8	
Lead	304	mg/kg	0.74	0.20	6.667	09/29/20 06:57	10/02/20 16:18	7439-92-1	
Selenium	0.59J	mg/kg	0.74	0.20	6.667	09/29/20 06:57	10/02/20 16:18	7782-49-2	D3
Silver	0.47	mg/kg	0.37	0.11	6.667	09/29/20 06:57	10/02/20 16:18	7440-22-4	
Zinc	537	mg/kg	26.0	7.8	6.667	09/29/20 06:57	10/02/20 16:18	7440-66-6	
7471 Mercury	Analytical	Method: EP	A 7471 Prepara	ation Meth	od: EPA	7471			
	Pace Anal	ytical Servic	es - Green Bay						
Mercury	0.15	mg/kg	0.037	0.011	1	10/07/20 09:07	10/08/20 10:11	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EP	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Servic	es - Green Bay						
Acenaphthene	22.9	ug/kg	19.4	2.5	1	10/02/20 08:09	10/02/20 15:08	83-32-9	
Acenaphthylene	24.4	ug/kg	19.4	2.5	1	10/02/20 08:09	10/02/20 15:08	208-96-8	
Anthracene	58.6	ug/kg	19.4	2.4	1	10/02/20 08:09	10/02/20 15:08	120-12-7	
Benzo(a)anthracene	172	ug/kg	19.4	2.5	1	10/02/20 08:09	10/02/20 15:08	56-55-3	
Benzo(a)pyrene	225	ug/kg	19.4	2.2	1	10/02/20 08:09	10/02/20 15:08	50-32-8	
Benzo(b)fluoranthene	339	ug/kg	19.4	2.7	1	10/02/20 08:09	10/02/20 15:08	205-99-2	
Benzo(g,h,i)perylene	132	ug/kg	19.4	3.4	1	10/02/20 08:09	10/02/20 15:08	191-24-2	
Benzo(k)fluoranthene	126	ug/kg	19.4	2.5	1	10/02/20 08:09	10/02/20 15:08	207-08-9	
Chrysene	228	ug/kg	19.4	3.7	1	10/02/20 08:09	10/02/20 15:08	218-01-9	
Dibenz(a,h)anthracene	45.4	ug/kg	19.4	2.7	1	10/02/20 08:09	10/02/20 15:08	53-70-3	
Fluoranthene	318	ug/kg	19.4	2.3	1	10/02/20 08:09	10/02/20 15:08	206-44-0	
Fluorene	27.6	ug/kg	19.4	2.3	1	10/02/20 08:09	10/02/20 15:08	86-73-7	
Indeno(1,2,3-cd)pyrene	117	ug/kg	19.4	4.1	1	10/02/20 08:09	10/02/20 15:08	193-39-5	
1-Methylnaphthalene	35.7	ug/kg	19.4	2.8	1	10/02/20 08:09	10/02/20 15:08	90-12-0	
2-Methylnaphthalene	52.1	ug/kg	19.4	2.8	1	10/02/20 08:09	10/02/20 15:08	91-57-6	
Naphthalene	118	ug/kg	19.4	1.9	1	10/02/20 08:09	10/02/20 15:08		
Phenanthrene	220	ug/kg	19.4	2.2	1	10/02/20 08:09	10/02/20 15:08	85-01-8	
Pyrene	236	ug/kg	19.4	2.9	1	10/02/20 08:09	10/02/20 15:08	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	61	%	17-100		1	10/02/20 08:09	10/02/20 15:08		
Terphenyl-d14 (S)	65	%	17-98		1	10/02/20 08:09	10/02/20 15:08	1718-51-0	
8260 MSV Med Level Normal List	-		A 8260 Prepara		od: EPA	A 5035/5030B			
	Pace Anal	ytical Servic	es - Green Bay						
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	75-35-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-3, 0.1-4.0' Lab ID: 40215420006 Collected: 09/24/20 08:36 Received: 09/25/20 15:12 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 Prepa	ration Meth	od: EPA	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	у					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/02/20 11:15	10/05/20 21:27	87-61-6	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/02/20 11:15	10/05/20 21:27	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/02/20 11:15	10/05/20 21:27	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	95-63-6	W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/02/20 11:15	10/05/20 21:27	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27		W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27		W
1,4-Dichlorobenzene	53.0J	ug/kg	69.8	29.1	1	10/02/20 11:15	10/05/20 21:27	106-46-7	
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27		W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 21:27		W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 21:27		W
Benzene	152	ug/kg	69.8	29.1	1	10/02/20 11:15	10/05/20 21:27	71-43-2	
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 21:27		W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/02/20 11:15	10/05/20 21:27		W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	75-27-4	W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 21:27	75-25-2	W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/02/20 11:15	10/05/20 21:27	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	108-90-7	W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/02/20 11:15	10/05/20 21:27	75-00-3	W
Chloroform	<47.5	ug/kg	250	47.5	1	10/02/20 11:15	10/05/20 21:27	67-66-3	W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/02/20 11:15	10/05/20 21:27	74-87-3	W
Dibromochloromethane	<229	ug/kg	763	229	1	10/02/20 11:15	10/05/20 21:27	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 21:27	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	108-20-3	W
Ethylbenzene	30.1J	ug/kg	69.8	29.1	1	10/02/20 11:15	10/05/20 21:27	100-41-4	
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/02/20 11:15	10/05/20 21:27	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	1634-04-4	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	10/02/20 11:15	10/05/20 21:27	75-09-2	W
Naphthalene	35.4J	ug/kg	106	31.7	1	10/02/20 11:15	10/05/20 21:27	91-20-3	
Styrene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	10/02/20 11:15	10/05/20 21:27	127-18-4	W
Toluene	67.6J	ug/kg	69.8	29.1	1	10/02/20 11:15	10/05/20 21:27	108-88-3	
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/02/20 11:15	10/05/20 21:27	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	75-01-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-3, 0.1-4.0' Lab ID: 40215420006 Collected: 09/24/20 08:36 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/02/20 11:15	10/05/20 21:27	10061-01-5	W
m&p-Xylene	77.2J	ug/kg	140	58.2	1	10/02/20 11:15	10/05/20 21:27	179601-23-1	
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/02/20 11:15	10/05/20 21:27	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:27	103-65-1	W
o-Xylene	42.1J	ug/kg	69.8	29.1	1	10/02/20 11:15	10/05/20 21:27	95-47-6	
p-Isopropyltoluene	38.0J	ug/kg	83.7	29.1	1	10/02/20 11:15	10/05/20 21:27	99-87-6	
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 21:27	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 21:27	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/02/20 11:15	10/05/20 21:27	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/02/20 11:15	10/05/20 21:27	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	84	%	58-145		1	10/02/20 11:15	10/05/20 21:27	1868-53-7	
Toluene-d8 (S)	88	%	56-140		1	10/02/20 11:15	10/05/20 21:27	2037-26-5	
4-Bromofluorobenzene (S)	76	%	52-137		1	10/02/20 11:15	10/05/20 21:27	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	14.0	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-2, 0.2-4.5' UPPER Lab ID: 40215420007 Collected: 09/24/20 10:40 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EPA	\ 8081B Prepa	aration Me	thod: Ef	PA 3550			
	Pace Anal	lytical Service	es - Minneapol	lis					
Aldrin	<5.6	ug/kg	18.8	5.6	10	10/01/20 15:08	10/02/20 16:22	309-00-2	
alpha-BHC	<2.4	ug/kg	8.0	2.4	10	10/01/20 15:08	10/02/20 16:22		
beta-BHC	<4.1	ug/kg	13.5	4.1	10	10/01/20 15:08	10/02/20 16:22		
delta-BHC	<3.1	ug/kg	10.3	3.1	10	10/01/20 15:08	10/02/20 16:22		
gamma-BHC (Lindane)	<2.2	ug/kg	7.4	2.2	10	10/01/20 15:08	10/02/20 16:22		
Chlordane (Technical)	<58.1	ug/kg	194	58.1	10	10/01/20 15:08	10/02/20 16:22		
alpha-Chlordane	<2.4	ug/kg	8.1	2.4	10	10/01/20 15:08	10/02/20 16:22		
gamma-Chlordane	<5.7	ug/kg	18.9	5.7	10	10/01/20 15:08	10/02/20 16:22		
4,4'-DDD	<4.1	ug/kg	13.6	4.1	10	10/01/20 15:08	10/02/20 16:22		
4,4'-DDE	<3.8	ug/kg	12.8	3.8	10	10/01/20 15:08	10/02/20 16:22		
4,4'-DDT	<8.6	ug/kg	28.6	8.6	10	10/01/20 15:08	10/02/20 16:22		
Dieldrin	4.9J	ug/kg	12.2	3.7	10	10/01/20 15:08	10/02/20 16:22		
Endosulfan I	<2.9	ug/kg	9.8	2.9	10	10/01/20 15:08	10/02/20 16:22		
Endosulfan II	<5.8	ug/kg	19.5	5.8	10	10/01/20 15:08	10/02/20 16:22		
Endosulfan sulfate	<7.1	ug/kg	23.5	7.1	10	10/01/20 15:08	10/02/20 16:22		
Endrin	<4.0	ug/kg	13.4	4.0	10	10/01/20 15:08	10/02/20 16:22		
Endrin aldehyde	<7.9	ug/kg	26.5	7.9	10	10/01/20 15:08	10/02/20 16:22		
Endrin ketone	<9.8	ug/kg	32.5	9.8	10	10/01/20 15:08	10/02/20 16:22		
Heptachlor	<4.0	ug/kg ug/kg	13.2	4.0	10	10/01/20 15:08	10/02/20 16:22		
Heptachlor epoxide	<2.7	ug/kg	9.1	2.7	10	10/01/20 15:08	10/02/20 16:22		
Methoxychlor	<58.3	ug/kg ug/kg	194	58.3	10	10/01/20 15:08	10/02/20 16:22		
Toxaphene	<156	ug/kg	520	156	10	10/01/20 15:08	10/02/20 16:22		
Surrogates	7100	ug/kg	020	100	10	10/01/20 10:00	10/02/20 10:22	0001 00 2	
Tetrachloro-m-xylene (S)	113	%.	30-150		10	10/01/20 15:08	10/02/20 16:22	877-09-8	D3
Decachlorobiphenyl (S)	124	%.	30-150		10	10/01/20 15:08	10/02/20 16:22		
8082A GCS PCB	Analytical	Method: EPA	8082A Prepa	aration Me	thod: EF	PA 3541			
	Pace Anal	lytical Service	es - Green Bay	/					
PCB-1016 (Aroclor 1016)	<16.2	ug/kg	53.3	16.2	1	09/28/20 14:42	09/29/20 16:01	1267/-11-2	
PCB-1221 (Aroclor 1221)	<16.2	ug/kg ug/kg	53.3	16.2	1	09/28/20 14:42			
PCB-1232 (Aroclor 1232)	<16.2	ug/kg	53.3	16.2	1	09/28/20 14:42			
PCB-1242 (Aroclor 1242)	<16.2	ug/kg ug/kg	53.3	16.2	1		09/29/20 16:01		
PCB-1248 (Aroclor 1248)	<16.2	ug/kg ug/kg	53.3	16.2	1		09/29/20 16:01		
PCB-1254 (Aroclor 1254)	22.7J	ug/kg	53.3	16.2	1	09/28/20 14:42			
PCB-1260 (Aroclor 1260)	<16.2	ug/kg ug/kg	53.3	16.2	1	09/28/20 14:42	09/29/20 16:01	11096-82-5	
PCB, Total	22.7J	ug/kg ug/kg	53.3	16.2	1		09/29/20 16:01		
Surrogates	22.70	ug/kg	00.0	10.2		00/20/20 14.42	00/20/20 10:01	1000 00 0	
Tetrachloro-m-xylene (S)	87	%	69-115		1	09/28/20 14:42	09/29/20 16:01	877-09-8	
Decachlorobiphenyl (S)	86	%	62-104		1		09/29/20 16:01		
6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepar	ation Meth	od: EPA	A 3050			
	Pace Anal	lytical Service	es - Green Bay	/					
Arsenic	3.4	mg/kg	0.89	0.27	6.667	09/29/20 06:57	10/02/20 16:25	7440-38-2	
7.11.001.110	***	mg/kg	0.00	0.2.			. 0, 02, 20 . 0.20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-2, 0.2-4.5' UPPER Lab ID: 40215420007 Collected: 09/24/20 10:40 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EP	A 6020 Prepara	ation Meth	nod: EPA	A 3050			
	Pace Anal	ytical Servic	es - Green Bay	,					
Cadmium	<0.098	mg/kg	0.67	0.098	6.667	09/29/20 06:57	10/02/20 16:25	7440-43-9	D3
Chromium	7.9	mg/kg	2.0	0.61	6.667	09/29/20 06:57	10/02/20 16:25	7440-47-3	
Copper	17.0	mg/kg	1.8	0.54	6.667	09/29/20 06:57	10/02/20 16:25	7440-50-8	
Lead	26.9	mg/kg	0.67	0.18	6.667	09/29/20 06:57	10/02/20 16:25	7439-92-1	
Selenium	0.21J	mg/kg	0.67	0.18	6.667	09/29/20 06:57	10/02/20 16:25	7782-49-2	D3
Silver	< 0.096	mg/kg	0.34	0.096	6.667	09/29/20 06:57	10/02/20 16:25	7440-22-4	D3
Zinc	75.4	mg/kg	23.4	7.0	6.667	09/29/20 06:57	10/02/20 16:25	7440-66-6	
7471 Mercury	Analytical	Method: EP	A 7471 Prepara	ation Meth	nod: EPA	7471			
	Pace Anal	ytical Servic	es - Green Bay	,					
Mercury	<0.011	mg/kg	0.037	0.011	1	10/07/20 09:07	10/08/20 10:14	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EP	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Servic	es - Green Bay	,					
Acenaphthene	3.4J	ug/kg	17.8	2.3	1	10/02/20 08:09	10/05/20 20:04	83-32-9	
Acenaphthylene	9.4J	ug/kg	17.8	2.2	1	10/02/20 08:09	10/05/20 20:04	208-96-8	
Anthracene	15.6J	ug/kg	17.8	2.2	1	10/02/20 08:09	10/05/20 20:04	120-12-7	
Benzo(a)anthracene	64.1	ug/kg	17.8	2.3	1	10/02/20 08:09	10/05/20 20:04	56-55-3	
Benzo(a)pyrene	99.1	ug/kg	17.8	2.0	1	10/02/20 08:09	10/05/20 20:04	50-32-8	
Benzo(b)fluoranthene	135	ug/kg	17.8	2.5	1	10/02/20 08:09	10/05/20 20:04	205-99-2	
Benzo(g,h,i)perylene	88.7	ug/kg	17.8	3.1	1	10/02/20 08:09	10/05/20 20:04	191-24-2	
Benzo(k)fluoranthene	59.0	ug/kg	17.8	2.3	1	10/02/20 08:09	10/05/20 20:04	207-08-9	
Chrysene	89.2	ug/kg	17.8	3.4	1	10/02/20 08:09	10/05/20 20:04	218-01-9	
Dibenz(a,h)anthracene	18.5	ug/kg	17.8	2.5	1	10/02/20 08:09	10/05/20 20:04	53-70-3	
Fluoranthene	131	ug/kg	17.8	2.1	1	10/02/20 08:09	10/05/20 20:04	206-44-0	
Fluorene	4.9J	ug/kg	17.8	2.1	1		10/05/20 20:04		
Indeno(1,2,3-cd)pyrene	67.9	ug/kg	17.8	3.7	1	10/02/20 08:09	10/05/20 20:04		
1-Methylnaphthalene	16.0J	ug/kg	17.8	2.6	1	10/02/20 08:09	10/05/20 20:04		
2-Methylnaphthalene	23.0	ug/kg	17.8	2.6	1	10/02/20 08:09	10/05/20 20:04		
Naphthalene	19.3	ug/kg	17.8	1.7	1	10/02/20 08:09	10/05/20 20:04		
Phenanthrene	46.6	ug/kg	17.8	2.0	1	10/02/20 08:09	10/05/20 20:04		
Pyrene	100	ug/kg	17.8	2.6	1	10/02/20 08:09	10/05/20 20:04		
Surrogates		~g/g			•	. 0, 02, 20 00.00	.0/00/20 20:0 :	0 00 0	
2-Fluorobiphenyl (S)	65	%	17-100		1	10/02/20 08:09	10/05/20 20:04	321-60-8	
Terphenyl-d14 (S)	68	%	17-98		1	10/02/20 08:09	10/05/20 20:04	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepara	ation Meth	nod: EPA	A 5035/5030B			
			es - Green Bay						
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1		10/05/20 21:44		W
,			00.0	_0.0	•		<b></b>		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-2, 0.2-4.5' UPPER Lab ID: 40215420007 Collected: 09/24/20 10:40 Received: 09/25/20 15:12 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 Prepa	ration Meth	od: EPA	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	y					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/02/20 11:15	10/05/20 21:44	87-61-6	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/02/20 11:15	10/05/20 21:44	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/02/20 11:15	10/05/20 21:44	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44	95-63-6	W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/02/20 11:15	10/05/20 21:44	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/02/20 11:15	10/05/20 21:44		W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/02/20 11:15	10/05/20 21:44		W
Chloroform	<47.5	ug/kg	250	47.5	1	10/02/20 11:15	10/05/20 21:44		W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Dibromochloromethane	<229	ug/kg	763	229	1	10/02/20 11:15	10/05/20 21:44		W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/02/20 11:15	10/05/20 21:44		W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1		10/05/20 21:44		W
Naphthalene	<27.3	ug/kg	91.0	27.3	1		10/05/20 21:44		W
Styrene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1		10/05/20 21:44		W
Toluene	<25.0	ug/kg	60.0	25.0	1		10/05/20 21:44		W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1		10/05/20 21:44		W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/02/20 11:15	10/05/20 21:44		W
	<25.0	ug/kg	55.5	25.0	•	10/02/20 11:15	<b></b>		W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-2, 0.2-4.5' UPPER Lab ID: 40215420007 Collected: 09/24/20 10:40 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/02/20 11:15	10/05/20 21:44	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/02/20 11:15	10/05/20 21:44	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/02/20 11:15	10/05/20 21:44	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 21:44	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 21:44	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 21:44	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 21:44	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/02/20 11:15	10/05/20 21:44	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/02/20 11:15	10/05/20 21:44	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	91	%	58-145		1	10/02/20 11:15	10/05/20 21:44	1868-53-7	
Toluene-d8 (S)	96	%	56-140		1	10/02/20 11:15	10/05/20 21:44	2037-26-5	
4-Bromofluorobenzene (S)	81	%	52-137		1	10/02/20 11:15	10/05/20 21:44	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	6.1	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-2, 0.2-4.5' LOWER Lab ID: 40215420008 Collected: 09/24/20 10:40 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EPA	A 8081B Prep	aration Me	thod: El	PA 3550			
	Pace Anal	ytical Servic	es - Minneapo	lis					
Aldrin	<29.4	ug/kg	97.8	29.4	50	10/01/20 15:08	10/02/20 20:04	309-00-2	
alpha-BHC	<12.6	ug/kg	41.9	12.6	50	10/01/20 15:08	10/02/20 20:04		
beta-BHC	<21.1	ug/kg	70.2	21.1	50	10/01/20 15:08	10/02/20 20:04		
delta-BHC	<16.0	ug/kg	53.4	16.0	50	10/01/20 15:08	10/02/20 20:04		
gamma-BHC (Lindane)	<11.6	ug/kg	38.8	11.6	50	10/01/20 15:08	10/02/20 20:04		
Chlordane (Technical)	<303	ug/kg	1010	303	50	10/01/20 15:08	10/02/20 20:04		
alpha-Chlordane	<12.7	ug/kg ug/kg	42.2	12.7	50	10/01/20 15:08	10/02/20 20:04		
gamma-Chlordane	<29.5	ug/kg ug/kg	98.2	29.5	50	10/01/20 15:08	10/02/20 20:04		
4,4'-DDD	<21.3	ug/kg ug/kg	70.8	21.3	50	10/01/20 15:08	10/02/20 20:04		
4,4'-DDE	<19.9	ug/kg ug/kg	66.4	19.9	50	10/01/20 15:08	10/02/20 20:04		
4,4'-DDT	<44.8	ug/kg ug/kg	149	44.8	50	10/01/20 15:08	10/02/20 20:04		
Dieldrin	<19.1	ug/kg ug/kg	63.6	19.1	50	10/01/20 15:08	10/02/20 20:04		
Endosulfan I	<15.3		51.0	15.3	50	10/01/20 15:08	10/02/20 20:04		
Endosulfan II	<30.4	ug/kg	101	30.4	50	10/01/20 15:08	10/02/20 20:04		
	<36.7	ug/kg	122	36.7	50		10/02/20 20:04		
Endosulfan sulfate		ug/kg				10/01/20 15:08	10/02/20 20:04		
Endrin	<20.9	ug/kg	69.7	20.9	50	10/01/20 15:08			
Endrin aldehyde	<41.4	ug/kg	138	41.4	50	10/01/20 15:08	10/02/20 20:04		
Endrin ketone	<50.8	ug/kg	169	50.8	50	10/01/20 15:08	10/02/20 20:04		
Heptachlor	<20.7	ug/kg	68.8	20.7	50	10/01/20 15:08	10/02/20 20:04		
Heptachlor epoxide	<14.2	ug/kg	47.2	14.2	50	10/01/20 15:08	10/02/20 20:04		
Methoxychlor	<303	ug/kg	1010	303	50	10/01/20 15:08	10/02/20 20:04		
Toxaphene	<813	ug/kg	2710	813	50	10/01/20 15:08	10/02/20 20:04	8001-35-2	
Surrogates	400	0/	20.450		<b>50</b>	40/04/00 45:00	40/00/00 00:04	077 00 0	D24
Tetrachloro-m-xylene (S)	132	%.	30-150		50	10/01/20 15:08	10/02/20 20:04		D3,v1
Decachlorobiphenyl (S)	154	%.	30-150		50	10/01/20 15:08	10/02/20 20:04	2051-24-3	S4
8082A GCS PCB	Analytical	Method: EP/	4 8082A Prep	aration Me	thod: El	PA 3541			
	Pace Anal	ytical Servic	es - Green Ba	y					
PCB-1016 (Aroclor 1016)	<16.7	ug/kg	55.0	16.7	1	09/28/20 14:42	09/29/20 19:17	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.7	ug/kg ug/kg	55.0	16.7	1	09/28/20 14:42			
PCB-1232 (Aroclor 1232)	<16.7	ug/kg ug/kg	55.0	16.7	1	09/28/20 14:42			
PCB-1242 (Aroclor 1242)	<16.7	ug/kg ug/kg	55.0	16.7	1	09/28/20 14:42			
PCB-1248 (Aroclor 1248)	<16.7	ug/kg ug/kg	55.0	16.7	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254)	40.1J	ug/kg ug/kg	55.0	16.7	1	09/28/20 14:42			
PCB-1260 (Aroclor 1260)	22.0J	ug/kg ug/kg	55.0 55.0	16.7	1	09/28/20 14:42			
PCB, Total	62.1	ug/kg ug/kg	55.0	16.7	1	09/28/20 14:42			
Surrogates	02.1	ug/kg	55.0	10.7	'	09/20/20 14.42	09/29/20 19.17	1330-30-3	
Tetrachloro-m-xylene (S)	82	%	69-115		1	09/28/20 14:42	09/29/20 19:17	877-09-8	
Decachlorobiphenyl (S)	78	%	62-104		1		09/29/20 19:17		
							30,20,20 10.17	_001 27 0	
6020 MET ICPMS			A 6020 Prepai es - Green Ba		od: EP/	A 3050			
		•			0.00-	00/00/02 22 55	10/00/05 15 ==	7440.00.0	
Arsenic	6.4	mg/kg	0.95	0.28		09/29/20 06:57			
Barium	255	mg/kg	0.94	0.28	6.667	09/29/20 06:57	10/02/20 16:32	7440-39-3	



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-2, 0.2-4.5' LOWER Lab ID: 40215420008 Collected: 09/24/20 10:40 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EP	A 6020 Prepai	ration Meth	nod: EPA	A 3050			
	Pace Anal	ytical Servic	es - Green Bay	y					
Cadmium	0.42J	mg/kg	0.72	0.10	6.667	09/29/20 06:57	10/02/20 16:32	7440-43-9	D3
Chromium	10.0	mg/kg	2.2	0.65	6.667	09/29/20 06:57	10/02/20 16:32		
Copper	40.3	mg/kg	1.9	0.58	6.667	09/29/20 06:57	10/02/20 16:32		
Lead	99.3	mg/kg	0.72	0.19	6.667	09/29/20 06:57	10/02/20 16:32		
Selenium	0.78	mg/kg	0.72	0.20	6.667	09/29/20 06:57	10/02/20 16:32		
Silver	0.24J	mg/kg	0.36	0.10	6.667	09/29/20 06:57	10/02/20 16:32		D3
Zinc	82.1	mg/kg	25.0	7.5	6.667	09/29/20 06:57	10/02/20 16:32		
7471 Mercury	Analytical	Method: EPA	A 7471 Prepar	ration Meth	nod: EPA	A 7471			
·	Pace Anal	ytical Servic	es - Green Bay	У					
Mercury	0.069	mg/kg	0.038	0.011	1	10/07/20 09:07	10/08/20 10:16	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EP	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Servic	es - Green Bay	y					
Acenaphthene	104J	ug/kg	184	23.8	10	10/02/20 08:09	10/05/20 18:04	83-32-9	
Acenaphthylene	145J	ug/kg	184	23.2	10	10/02/20 08:09	10/05/20 18:04	208-96-8	
Anthracene	356	ug/kg	184	22.8	10	10/02/20 08:09	10/05/20 18:04	120-12-7	
Benzo(a)anthracene	730	ug/kg	184	23.7	10	10/02/20 08:09	10/05/20 18:04	56-55-3	
Benzo(a)pyrene	909	ug/kg	184	20.9	10	10/02/20 08:09	10/05/20 18:04	50-32-8	
Benzo(b)fluoranthene	1090	ug/kg	184	25.5	10	10/02/20 08:09	10/05/20 18:04	205-99-2	
Benzo(g,h,i)perylene	673	ug/kg	184	32.2	10	10/02/20 08:09	10/05/20 18:04	191-24-2	
Benzo(k)fluoranthene	478	ug/kg	184	23.5	10	10/02/20 08:09	10/05/20 18:04	207-08-9	
Chrysene	878	ug/kg	184	34.6	10	10/02/20 08:09	10/05/20 18:04	218-01-9	
Dibenz(a,h)anthracene	172J	ug/kg	184	25.4	10	10/02/20 08:09	10/05/20 18:04	53-70-3	
Fluoranthene	1540	ug/kg	184	21.7	10	10/02/20 08:09	10/05/20 18:04	206-44-0	
Fluorene	182J	ug/kg	184	22.0	10	10/02/20 08:09	10/05/20 18:04		
Indeno(1,2,3-cd)pyrene	501	ug/kg	184	38.3	10	10/02/20 08:09	10/05/20 18:04		
1-Methylnaphthalene	163J	ug/kg	184	26.8	10	10/02/20 08:09	10/05/20 18:04	90-12-0	
2-Methylnaphthalene	151J	ug/kg	184	26.9	10	10/02/20 08:09	10/05/20 18:04		
Naphthalene	182J	ug/kg	184	17.9	10	10/02/20 08:09	10/05/20 18:04		
Phenanthrene	1020	ug/kg	184	21.0	10	10/02/20 08:09	10/05/20 18:04		
Pyrene	1190	ug/kg	184	27.0	10	10/02/20 08:09	10/05/20 18:04		
Surrogates		~g/g				. 0, 02, 20 00.00	.0,00,20 .0.0 .	0 00 0	
2-Fluorobiphenyl (S)	52	%	17-100		10	10/02/20 08:09	10/05/20 18:04	321-60-8	
Terphenyl-d14 (S)	57	%	17-98		10	10/02/20 08:09	10/05/20 18:04	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepar	ration Meth	nod: EPA	A 5035/5030B			
	-		es - Green Bay						
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-2, 0.2-4.5' LOWER Lab ID: 40215420008 Collected: 09/24/20 10:40 Received: 09/25/20 15:12 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 Prepa	ration Metho	od: EP/	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	y					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/02/20 11:15	10/05/20 22:01		W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/02/20 11:15	10/05/20 22:01		W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/02/20 11:15	10/05/20 22:01		W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/02/20 11:15	10/05/20 22:01		W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 22:01	_	W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/02/20 11:15	10/05/20 22:01		W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/02/20 11:15	10/05/20 22:01		W
Chloroform	<47.5	ug/kg	250	47.5	1	10/02/20 11:15	10/05/20 22:01		W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Dibromochloromethane	<229	ug/kg	763	229	1	10/02/20 11:15	10/05/20 22:01		W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/02/20 11:15	10/05/20 22:01		W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1		10/05/20 22:01		W
Naphthalene	69.0J	ug/kg	100	30.0	1		10/05/20 22:01		
Styrene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	10/02/20 11:15	10/05/20 22:01		W
Toluene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/02/20 11:15	10/05/20 22:01		W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1		10/05/20 22:01		W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-2, 0.2-4.5' LOWER Lab ID: 40215420008 Collected: 09/24/20 10:40 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/02/20 11:15	10/05/20 22:01	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/02/20 11:15	10/05/20 22:01	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/02/20 11:15	10/05/20 22:01	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:01	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:01	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:01	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 22:01	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/02/20 11:15	10/05/20 22:01	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/02/20 11:15	10/05/20 22:01	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	97	%	58-145		1	10/02/20 11:15	10/05/20 22:01	1868-53-7	
Toluene-d8 (S)	101	%	56-140		1	10/02/20 11:15	10/05/20 22:01	2037-26-5	
4-Bromofluorobenzene (S)	86	%	52-137		1	10/02/20 11:15	10/05/20 22:01	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	9.1	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-8, 0.3-6.5' Lab ID: 40215420009 Collected: 09/24/20 10:55 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EPA	A 8081B Prep	aration Me	thod: El	PA 3550			
	Pace Anal	ytical Service	es - Minneapo	lis					
Aldrin	<29.2	ug/kg	97.1	29.2	50	10/01/20 15:08	10/02/20 20:23	309-00-2	
alpha-BHC	<12.5	ug/kg	41.6	12.5	50	10/01/20 15:08	10/02/20 20:23		
beta-BHC	<20.9	ug/kg	69.7	20.9	50	10/01/20 15:08	10/02/20 20:23		
delta-BHC	<15.9	ug/kg	53.0	15.9	50	10/01/20 15:08	10/02/20 20:23		
gamma-BHC (Lindane)	<11.6	ug/kg	38.5	11.6	50	10/01/20 15:08	10/02/20 20:23		
Chlordane (Technical)	<300	ug/kg	1000	300	50	10/01/20 15:08	10/02/20 20:23		
alpha-Chlordane	<12.6	ug/kg	41.9	12.6	50	10/01/20 15:08	10/02/20 20:23		
gamma-Chlordane	<29.3	ug/kg	97.5	29.3	50	10/01/20 15:08	10/02/20 20:23		
4,4'-DDD	<21.1	ug/kg ug/kg	70.2	21.1	50	10/01/20 15:08	10/02/20 20:23		
4,4'-DDE	<19.8	ug/kg ug/kg	65.9	19.8	50	10/01/20 15:08	10/02/20 20:23		
4,4'-DDT	<44.4	ug/kg ug/kg	148	44.4	50	10/01/20 15:08	10/02/20 20:23		
Dieldrin	<19.0	ug/kg ug/kg	63.2	19.0	50	10/01/20 15:08	10/02/20 20:23		
Endosulfan I	<15.2	ug/kg ug/kg	50.6	15.2	50	10/01/20 15:08	10/02/20 20:23		
Endosulfan II	<30.2	ug/kg ug/kg	101	30.2	50	10/01/20 15:08	10/02/20 20:23		
Endosulfan sulfate	<36.5	ug/kg ug/kg	121	36.5	50	10/01/20 15:08	10/02/20 20:23		
Endrin	<20.8	ug/kg ug/kg	69.1	20.8	50	10/01/20 15:08	10/02/20 20:23		
	<41.0		137	41.0	50	10/01/20 15:08	10/02/20 20:23		
Endrin aldehyde		ug/kg		50.4					
Endrin ketone	<50.4 <20.5	ug/kg	168 68.2	20.5	50 50	10/01/20 15:08	10/02/20 20:23 10/02/20 20:23		
Heptachlor		ug/kg			50	10/01/20 15:08			
Heptachlor epoxide	<14.1	ug/kg	46.8	14.1 301	50 50	10/01/20 15:08	10/02/20 20:23 10/02/20 20:23		
Methoxychlor	<301	ug/kg	1000		50	10/01/20 15:08			
Toxaphene	<807	ug/kg	2690	807	50	10/01/20 15:08	10/02/20 20:23	8001-35-2	
Surrogates Tetrachloro-m-xylene (S)	139	%.	30-150		50	10/01/20 15:08	10/02/20 20:23	977 00 9	D3,v1
Decachlorobiphenyl (S)	150	%. %.	30-150		50	10/01/20 15:08			D3,V1
DODGA COS DOD	Analytical	Mathadi EDi	1 00001 Dran	oration Ma	4b a d. F	DA 2544			
8082A GCS PCB			4 8082A Prepa		triod. Er	PA 3541			
	Pace Anai	ytical Service	es - Green Ba	y					
PCB-1016 (Aroclor 1016)	<16.7	ug/kg	54.7	16.7	1	09/28/20 14:42	09/29/20 17:06	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.7	ug/kg	54.7	16.7	1	09/28/20 14:42	09/29/20 17:06	11104-28-2	
PCB-1232 (Aroclor 1232)	<16.7	ug/kg	54.7	16.7	1	09/28/20 14:42	09/29/20 17:06	11141-16-5	
PCB-1242 (Aroclor 1242)	<16.7	ug/kg	54.7	16.7	1	09/28/20 14:42	09/29/20 17:06	53469-21-9	
PCB-1248 (Aroclor 1248)	<16.7	ug/kg	54.7	16.7	1	09/28/20 14:42	09/29/20 17:06	12672-29-6	
PCB-1254 (Aroclor 1254)	47.4J	ug/kg	54.7	16.7	1	09/28/20 14:42	09/29/20 17:06	11097-69-1	
PCB-1260 (Aroclor 1260)	<16.7	ug/kg	54.7	16.7	1	09/28/20 14:42	09/29/20 17:06	11096-82-5	
PCB, Total	47.4J	ug/kg	54.7	16.7	1	09/28/20 14:42	09/29/20 17:06	1336-36-3	
Surrogates		0 0							
Tetrachloro-m-xylene (S)	91	%	69-115		1	09/28/20 14:42	09/29/20 17:06	877-09-8	
Decachlorobiphenyl (S)	84	%	62-104		1	09/28/20 14:42	09/29/20 17:06	2051-24-3	
6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepai	ration Meth	nod: EPA	A 3050			
			es - Green Ba						
Arsenic	2.8	mg/kg	0.94	0.28	6,667	09/29/20 06:57	10/02/20 16:39	7440-38-2	
Barium	26.4	mg/kg	0.93	0.28		09/29/20 06:57			
Danam	20.4	mg/ng	0.00	0.20	0.007	30,20,20 00.01	10/02/20 10:00	, 170 00 0	



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-8, 0.3-6.5' Lab ID: 40215420009 Collected: 09/24/20 10:55 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepar	ation Meth	od: EPA	A 3050			
	Pace Anal	ytical Service	es - Green Bay	•					
Cadmium	0.14J	mg/kg	0.71	0.10	6.667	09/29/20 06:57	10/02/20 16:39	7440-43-9	D3
Chromium	11.5	mg/kg	2.2	0.65		09/29/20 06:57	10/02/20 16:39		
Copper	20.5	mg/kg	1.9	0.57	6.667	09/29/20 06:57			
Lead	33.5	mg/kg	0.71	0.19		09/29/20 06:57			
Selenium	0.36J	mg/kg	0.71	0.19		09/29/20 06:57			D3
Silver	<0.10	mg/kg	0.35	0.10		09/29/20 06:57			D3
Zinc	119	mg/kg	24.7	7.4		09/29/20 06:57			
7471 Mercury	Analytical	Method: EPA	A 7471 Prepar	ation Meth	od: EPA	A 7471			
	Pace Anal	ytical Service	es - Green Bay	,					
Mercury	0.044	mg/kg	0.036	0.010	1	10/07/20 09:07	10/08/20 10:18	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EPA	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Service	es - Green Bay	,					
Acenaphthene	9.3J	ug/kg	36.5	4.7	2	10/02/20 08:09	10/05/20 19:13	83-32-9	
Acenaphthylene	105	ug/kg	36.5	4.6	2	10/02/20 08:09	10/05/20 19:13	208-96-8	
Anthracene	82.9	ug/kg	36.5	4.5	2	10/02/20 08:09	10/05/20 19:13	120-12-7	
Benzo(a)anthracene	296	ug/kg	36.5	4.7	2	10/02/20 08:09	10/05/20 19:13	56-55-3	
Benzo(a)pyrene	434	ug/kg	36.5	4.1	2	10/02/20 08:09	10/05/20 19:13	50-32-8	
Benzo(b)fluoranthene	525	ug/kg	36.5	5.1	2	10/02/20 08:09	10/05/20 19:13		
Benzo(g,h,i)perylene	289	ug/kg	36.5	6.4	2	10/02/20 08:09	10/05/20 19:13	191-24-2	
Benzo(k)fluoranthene	203	ug/kg	36.5	4.7	2	10/02/20 08:09	10/05/20 19:13	207-08-9	
Chrysene	330	ug/kg	36.5	6.9	2	10/02/20 08:09	10/05/20 19:13	218-01-9	
Dibenz(a,h)anthracene	70.6	ug/kg	36.5	5.0	2	10/02/20 08:09	10/05/20 19:13	53-70-3	
Fluoranthene	495	ug/kg	36.5	4.3	2	10/02/20 08:09	10/05/20 19:13	206-44-0	
Fluorene	16.3J	ug/kg	36.5	4.4	2	10/02/20 08:09	10/05/20 19:13	86-73-7	
Indeno(1,2,3-cd)pyrene	248	ug/kg	36.5	7.6	2	10/02/20 08:09	10/05/20 19:13	193-39-5	
1-Methylnaphthalene	36.9	ug/kg	36.5	5.3	2	10/02/20 08:09	10/05/20 19:13	90-12-0	
2-Methylnaphthalene	54.0	ug/kg	36.5	5.3	2	10/02/20 08:09	10/05/20 19:13	91-57-6	
Naphthalene	69.8	ug/kg	36.5	3.6	2	10/02/20 08:09	10/05/20 19:13		
Phenanthrene	167	ug/kg	36.5	4.2	2	10/02/20 08:09	10/05/20 19:13	85-01-8	
Pyrene	406	ug/kg	36.5	5.4	2	10/02/20 08:09	10/05/20 19:13	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	52	%	17-100		2	10/02/20 08:09	10/05/20 19:13	321-60-8	
Terphenyl-d14 (S)	50	%	17-98		2	10/02/20 08:09	10/05/20 19:13	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepar	ation Meth	od: EPA	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay	,					
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	75-35-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-8, 0.3-6.5' Lab ID: 40215420009 Collected: 09/24/20 10:55 Received: 09/25/20 15:12 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 Prepa	A 5035/5030B					
	Pace Anal	ytical Service	es - Green Ba	у					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/02/20 11:15	10/05/20 22:18		W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/02/20 11:15	10/05/20 22:18		W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/02/20 11:15	10/05/20 22:18		W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18		W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/02/20 11:15	10/05/20 22:18		W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 22:18	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 22:18	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	71-43-2	W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 22:18	108-86-1	W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/02/20 11:15	10/05/20 22:18	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	75-27-4	W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:18	75-25-2	W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/02/20 11:15	10/05/20 22:18	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	108-90-7	W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/02/20 11:15	10/05/20 22:18	75-00-3	W
Chloroform	<47.5	ug/kg	250	47.5	1	10/02/20 11:15	10/05/20 22:18	67-66-3	W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/02/20 11:15	10/05/20 22:18	74-87-3	W
Dibromochloromethane	<229	ug/kg	763	229	1	10/02/20 11:15	10/05/20 22:18	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:18	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/02/20 11:15	10/05/20 22:18	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1		10/05/20 22:18		W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	10/02/20 11:15	10/05/20 22:18	75-09-2	W
Naphthalene	31.4J	ug/kg	99.5	29.8	1	10/02/20 11:15	10/05/20 22:18	91-20-3	
Styrene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	10/02/20 11:15	10/05/20 22:18	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/02/20 11:15	10/05/20 22:18	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	75-01-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-8, 0.3-6.5' Lab ID: 40215420009 Collected: 09/24/20 10:55 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/02/20 11:15	10/05/20 22:18	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/02/20 11:15	10/05/20 22:18	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/02/20 11:15	10/05/20 22:18	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:18	95-47-6	W
p-Isopropyltoluene	84.6	ug/kg	78.7	27.3	1	10/02/20 11:15	10/05/20 22:18	99-87-6	
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:18	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 22:18	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/02/20 11:15	10/05/20 22:18	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/02/20 11:15	10/05/20 22:18	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	62	%	58-145		1	10/02/20 11:15	10/05/20 22:18	1868-53-7	
Toluene-d8 (S)	91	%	56-140		1	10/02/20 11:15	10/05/20 22:18	2037-26-5	
4-Bromofluorobenzene (S)	78	%	52-137		1	10/02/20 11:15	10/05/20 22:18	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	8.6	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-7, 0.3-5.0' Lab ID: 40215420010 Collected: 09/24/20 11:08 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EPA	A 8081B Prep	aration Me	thod: El	PA 3550			
	Pace Anal	lytical Service	es - Minneapo	lis					
Aldrin	<11.3	ug/kg	37.7	11.3	20	10/01/20 15:08	10/02/20 18:13	309-00-2	
alpha-BHC	<4.8	ug/kg	16.1	4.8	20	10/01/20 15:08	10/02/20 18:13		
beta-BHC	<8.1	ug/kg	27.1	8.1	20	10/01/20 15:08	10/02/20 18:13		
delta-BHC	<6.2	ug/kg	20.6	6.2	20	10/01/20 15:08	10/02/20 18:13		
gamma-BHC (Lindane)	<4.5	ug/kg	14.9	4.5	20	10/01/20 15:08	10/02/20 18:13		
Chlordane (Technical)	<117	ug/kg	388	117	20	10/01/20 15:08	10/02/20 18:13		
alpha-Chlordane	<4.9	ug/kg	16.3	4.9	20	10/01/20 15:08	10/02/20 18:13		
gamma-Chlordane	<11.4	ug/kg	37.9	11.4	20	10/01/20 15:08	10/02/20 18:13		
4,4'-DDD	<8.2	ug/kg	27.3	8.2	20	10/01/20 15:08	10/02/20 18:13		
4,4'-DDE	<7.7	ug/kg	25.6	7.7	20	10/01/20 15:08	10/02/20 18:13		
4,4'-DDT	<17.3	ug/kg	57.5	17.3	20	10/01/20 15:08	10/02/20 18:13		
Dieldrin	<7.4	ug/kg	24.5	7.4	20	10/01/20 15:08	10/02/20 18:13		
Endosulfan I	<5.9	ug/kg ug/kg	19.7	5.9	20	10/01/20 15:08	10/02/20 18:13		
Endosulfan II	<11.7	ug/kg ug/kg	39.1	11.7	20	10/01/20 15:08	10/02/20 18:13		
Endosulfan sulfate	<14.2	ug/kg	47.2	14.2	20	10/01/20 15:08	10/02/20 18:13		
Endrin	<8.1	ug/kg	26.9	8.1	20	10/01/20 15:08	10/02/20 18:13		
Endrin aldehyde	<15.9	ug/kg ug/kg	53.1	15.9	20	10/01/20 15:08	10/02/20 18:13		
Endrin ketone	<19.6	ug/kg ug/kg	65.2	19.6	20	10/01/20 15:08	10/02/20 18:13		
Heptachlor	<8.0	ug/kg ug/kg	26.5	8.0	20	10/01/20 15:08	10/02/20 18:13		
Heptachlor epoxide	<5.5	ug/kg ug/kg	18.2	5.5	20	10/01/20 15:08	10/02/20 18:13		
Methoxychlor	<117	ug/kg ug/kg	389	117	20	10/01/20 15:08	10/02/20 18:13		
Toxaphene	<313	ug/kg ug/kg	1040	313	20	10/01/20 15:08	10/02/20 18:13		
Surrogates	<b>\313</b>	ug/kg	1040	313	20	10/01/20 13.00	10/02/20 10.13	0001-33-2	
Tetrachloro-m-xylene (S)	119	%.	30-150		20	10/01/20 15:08	10/02/20 18:13	877-09-8	D3,v1
Decachlorobiphenyl (S)	145	%.	30-150		20	10/01/20 15:08	10/02/20 18:13		20,71
8082A GCS PCB	Analytical	Method: EPA	A 8082A Prep	aration Me	thod: EF	PA 3541			
	Pace Anal	ytical Service	es - Green Ba	y					
PCB-1016 (Aroclor 1016)	<16.4	ug/kg	53.7	16.4	1	09/28/20 14:42	09/29/20 19:39	1267/-11-2	
PCB-1221 (Aroclor 1221)	<16.4	ug/kg ug/kg	53.7	16.4	1	09/28/20 14:42			
PCB-1232 (Aroclor 1232)	<16.4	ug/kg ug/kg	53.7	16.4	1	09/28/20 14:42			
PCB-1242 (Aroclor 1242)	<16.4	ug/kg ug/kg	53.7	16.4	1		09/29/20 19:39		
PCB-1248 (Aroclor 1248)	<16.4	ug/kg ug/kg	53.7	16.4	1		09/29/20 19:39		
PCB-1254 (Aroclor 1254)	27.5J	ug/kg ug/kg	53.7 53.7	16.4	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254) PCB-1260 (Aroclor 1260)	<16.4	ug/kg ug/kg	53.7 53.7	16.4	1	09/28/20 14:42	09/29/20 19:39		
PCB, Total	27.5J	ug/kg ug/kg	53.7	16.4	1		09/29/20 19:39		
Surrogates	27.53	ug/kg	55.7	10.4	'	09/20/20 14.42	09/29/20 19.39	1330-30-3	
Tetrachloro-m-xylene (S)	88	%	69-115		1	09/28/20 14:42	09/29/20 19:39	877-09-8	
Decachlorobiphenyl (S)	84	%	62-104		1		09/29/20 19:39		
2 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0-1	,0	02 107		•	30/20/20 14.42	30/20/20 10:00	_00 · 2 · 0	
6020 MET ICPMS			A 6020 Prepar es - Green Ba		od: EPA	A 3050			
Arsenic	3.1	mg/kg	0.92	0.28	6 667	09/29/20 06:57	10/02/20 16:46	7440-38-2	
Barium	16.2	mg/kg	0.92	0.28		09/29/20 06:57			
Danulli	10.2	mg/kg	0.92	0.20	0.007	03/23/20 00.5/	10/02/20 10.40	1440-38-3	



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-7, 0.3-5.0' Lab ID: 40215420010 Collected: 09/24/20 11:08 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepar	ation Meth	od: EPA	A 3050			
	Pace Anal	ytical Service	es - Green Bay	•					
Cadmium	0.11J	mg/kg	0.70	0.10	6.667	09/29/20 06:57	10/02/20 16:46	7440-43-9	D3
Chromium	9.2	mg/kg	2.1	0.64		09/29/20 06:57	10/02/20 16:46		
Copper	20.8	mg/kg	1.9	0.56	6.667	09/29/20 06:57			
Lead	25.1	mg/kg	0.70	0.19		09/29/20 06:57			
Selenium	0.34J	mg/kg	0.70	0.19		09/29/20 06:57			D3
Silver	<0.10	mg/kg	0.35	0.10		09/29/20 06:57			D3
Zinc	66.8	mg/kg	24.4	7.3		09/29/20 06:57			
7471 Mercury	Analytical	Method: EPA	7471 Prepar	ation Meth	od: EPA	7471			
	Pace Anal	ytical Service	es - Green Bay	,					
Mercury	0.017J	mg/kg	0.034	0.0098	1	10/07/20 09:07	10/08/20 10:20	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EPA	8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Service	es - Green Bay	,					
Acenaphthene	<2.3	ug/kg	17.9	2.3	1	10/02/20 08:09	10/05/20 20:22	83-32-9	
Acenaphthylene	7.3J	ug/kg	17.9	2.3	1	10/02/20 08:09	10/05/20 20:22	208-96-8	
Anthracene	10.6J	ug/kg	17.9	2.2	1	10/02/20 08:09			
Benzo(a)anthracene	33.6	ug/kg	17.9	2.3	1	10/02/20 08:09	10/05/20 20:22	56-55-3	
Benzo(a)pyrene	58.9	ug/kg	17.9	2.0	1	10/02/20 08:09	10/05/20 20:22	50-32-8	
Benzo(b)fluoranthene	76.9	ug/kg	17.9	2.5	1		10/05/20 20:22		
Benzo(g,h,i)perylene	53.1	ug/kg	17.9	3.1	1	10/02/20 08:09	10/05/20 20:22	191-24-2	
Benzo(k)fluoranthene	33.2	ug/kg	17.9	2.3	1	10/02/20 08:09			
Chrysene	51.5	ug/kg	17.9	3.4	1	10/02/20 08:09	10/05/20 20:22	218-01-9	
Dibenz(a,h)anthracene	10.6J	ug/kg	17.9	2.5	1	10/02/20 08:09	10/05/20 20:22	53-70-3	
Fluoranthene	62.3	ug/kg	17.9	2.1	1	10/02/20 08:09			
Fluorene	3.7J	ug/kg	17.9	2.1	1	10/02/20 08:09	10/05/20 20:22	86-73-7	
Indeno(1,2,3-cd)pyrene	38.2	ug/kg	17.9	3.7	1	10/02/20 08:09	10/05/20 20:22		
1-Methylnaphthalene	20.2	ug/kg	17.9	2.6	1	10/02/20 08:09	10/05/20 20:22	90-12-0	
2-Methylnaphthalene	30.1	ug/kg	17.9	2.6	1	10/02/20 08:09	10/05/20 20:22		
Naphthalene	23.2	ug/kg	17.9	1.7	1	10/02/20 08:09	10/05/20 20:22		
Phenanthrene	29.0	ug/kg	17.9	2.0	1	10/02/20 08:09	10/05/20 20:22	85-01-8	
Pyrene	55.8	ug/kg	17.9	2.6	1	10/02/20 08:09			
Surrogates		0 0							
2-Fluorobiphenyl (S)	73	%	17-100		1	10/02/20 08:09	10/05/20 20:22	321-60-8	
Terphenyl-d14 (S)	73	%	17-98		1	10/02/20 08:09	10/05/20 20:22	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EPA	8260 Prepar	ation Meth	od: EPA	A 5035/5030B			
			es - Green Bay						
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-7, 0.3-5.0' Lab ID: 40215420010 Collected: 09/24/20 11:08 Received: 09/25/20 15:12 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 Prepa	ration Meth	od: EPA	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	y					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/02/20 11:15	10/05/20 22:35	87-61-6	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/02/20 11:15	10/05/20 22:35	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/02/20 11:15	10/05/20 22:35	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/02/20 11:15	10/05/20 22:35	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/02/20 11:15	10/05/20 22:35		W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/02/20 11:15	10/05/20 22:35		W
Chloroform	<47.5	ug/kg	250	47.5	1	10/02/20 11:15	10/05/20 22:35		W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Dibromochloromethane	<229	ug/kg	763	229	1	10/02/20 11:15	10/05/20 22:35		W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/02/20 11:15	10/05/20 22:35		W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1		10/05/20 22:35		W
Naphthalene	<27.3	ug/kg	91.0	27.3	1		10/05/20 22:35		W
Styrene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1		10/05/20 22:35		W
Toluene	<25.0	ug/kg	60.0	25.0	1		10/05/20 22:35		W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1		10/05/20 22:35		W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/02/20 11:15	10/05/20 22:35		W
		- 55	00.0	_0.0	•		J. J.J		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-7, 0.3-5.0' Lab ID: 40215420010 Collected: 09/24/20 11:08 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/02/20 11:15	10/05/20 22:35	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/02/20 11:15	10/05/20 22:35	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/02/20 11:15	10/05/20 22:35	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:35	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:35	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:35	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 22:35	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/02/20 11:15	10/05/20 22:35	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/02/20 11:15	10/05/20 22:35	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	75	%	58-145		1	10/02/20 11:15	10/05/20 22:35	1868-53-7	
Toluene-d8 (S)	77	%	56-140		1	10/02/20 11:15	10/05/20 22:35	2037-26-5	
4-Bromofluorobenzene (S)	63	%	52-137		1	10/02/20 11:15	10/05/20 22:35	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	6.6	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-9, 0.2-4.0' Lab ID: 40215420011 Collected: 09/24/20 11:43 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EP/	A 8081B Prepa	aration Me	thod: El	PA 3550			
	Pace Anal	ytical Servic	es - Minneapol	lis					
Aldrin	<2.9	ug/kg	9.5	2.9	5	10/01/20 15:08	10/06/20 16:48	309-00-2	
alpha-BHC	<1.2	ug/kg	4.1	1.2	5	10/01/20 15:08	10/06/20 16:48		
beta-BHC	<2.0	ug/kg	6.8	2.0	5	10/01/20 15:08	10/06/20 16:48		
delta-BHC	<1.6	ug/kg	5.2	1.6	5	10/01/20 15:08	10/06/20 16:48		
gamma-BHC (Lindane)	<1.1	ug/kg	3.8	1.1	5		10/06/20 16:48		
Chlordane (Technical)	<29.4	ug/kg	97.9	29.4	5	10/01/20 15:08	10/06/20 16:48		
alpha-Chlordane	<1.2	ug/kg	4.1	1.2	5	10/01/20 15:08	10/06/20 16:48		
gamma-Chlordane	<2.9	ug/kg	9.5	2.9	5	10/01/20 15:08	10/06/20 16:48		
4,4'-DDD	<2.1	ug/kg	6.9	2.1	5	10/01/20 15:08	10/06/20 16:48		
4,4'-DDE	2.7J	ug/kg	6.5	1.9	5	10/01/20 15:08	10/06/20 16:48		
4,4'-DDT	<4.3	ug/kg ug/kg	14.5	4.3	5	10/01/20 15:08	10/06/20 16:48		
Dieldrin	<1.9	ug/kg ug/kg	6.2	1.9	5	10/01/20 15:08	10/06/20 16:48		
Endosulfan I	<1.5	ug/kg ug/kg	5.0	1.5	5	10/01/20 15:08	10/06/20 16:48		
Endosulfan II	<3.0	ug/kg ug/kg	9.8	3.0	5	10/01/20 15:08	10/06/20 16:48		
Endosulfan sulfate	<3.6		11.9	3.6	5	10/01/20 15:08	10/06/20 16:48		
Endrin	<3.0 <2.0	ug/kg	6.8	2.0	5 5	10/01/20 15:08	10/06/20 16:48		
		ug/kg			5 5				
Endrin aldehyde	<4.0	ug/kg	13.4	4.0		10/01/20 15:08	10/06/20 16:48		
Endrin ketone	<4.9	ug/kg	16.4	4.9	5	10/01/20 15:08	10/06/20 16:48		
Heptachlor	<2.0	ug/kg	6.7	2.0	5	10/01/20 15:08	10/06/20 16:48		
Heptachlor epoxide	3.6J	ug/kg	4.6	1.4	5	10/01/20 15:08	10/06/20 16:48		
Methoxychlor	<29.5	ug/kg	98.1	29.5	5	10/01/20 15:08	10/06/20 16:48		
Toxaphene	<79.0	ug/kg	263	79.0	5	10/01/20 15:08	10/06/20 16:48	8001-35-2	
Surrogates Tetraphlara manulana (C)	06	%.	20.450		-	10/01/20 15:00	10/06/20 16:48	077 00 0	D3
Tetrachloro-m-xylene (S)	96 115	%. %.	30-150 30-150		5 5	10/01/20 15:08 10/01/20 15:08	10/06/20 16:48		D3
Decachlorobiphenyl (S)	115	70.	30-130		5	10/01/20 15.06	10/06/20 10.46	2031-24-3	
8082A GCS PCB	Analytical	Method: EP/	4 8082A Prepa	aration Me	thod: El	PA 3541			
	Pace Anal	ytical Servic	es - Green Bay	/					
PCB-1016 (Aroclor 1016)	<16.2	ug/kg	53.3	16.2	1	09/28/20 14:42	09/29/20 17:50	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.2	ug/kg ug/kg	53.3	16.2	1	09/28/20 14:42			
PCB-1232 (Aroclor 1232)	<16.2	ug/kg ug/kg	53.3	16.2	1	09/28/20 14:42			
PCB-1242 (Aroclor 1242)	507	ug/kg ug/kg	53.3	16.2	1	09/28/20 14:42			
PCB-1248 (Aroclor 1248)	<16.2	ug/kg ug/kg	53.3	16.2	1	09/28/20 14:42			
,	<16.2		53.3	16.2	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254)	<16.2 <16.2	ug/kg	53.3	16.2	1	09/28/20 14:42			
PCB-1260 (Aroclor 1260) PCB, Total	507	ug/kg	53.3	16.2	1	09/28/20 14:42			
-	507	ug/kg	55.5	10.2	1	09/26/20 14.42	09/29/20 17:50	1330-30-3	
Surrogates Tetrachloro-m-xylene (S)	88	%	69-115		1	09/28/20 14:42	09/29/20 17:50	877-09-8	
Decachlorobiphenyl (S)	84	% %	62-104		1		09/29/20 17:50		
Decacilloropiphenyr (3)							03/23/20 17:30	2001724 <b>-</b> 0	
6020 MET ICPMS			A 6020 Prepar es - Green Bay		nod: EP/	A 3050			
	Pace Anai	iyildal Servic	es - Green Ba)	/					
Arsenic	2.0	mg/kg	0.90	0.27		09/29/20 06:57			
Barium	13.4	mg/kg	0.89	0.27	6.667	09/29/20 06:57	10/02/20 16:52	7440-39-3	



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-9, 0.2-4.0' Lab ID: 40215420011 Collected: 09/24/20 11:43 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EP	A 6020 Prepara	ation Meth	nod: EPA	A 3050			
	Pace Anal	ytical Servic	es - Green Bay						
Cadmium	< 0.099	mg/kg	0.68	0.099	6.667	09/29/20 06:57	10/02/20 16:52	7440-43-9	D3
Chromium	9.5	mg/kg	2.1	0.62	6.667	09/29/20 06:57	10/02/20 16:52	7440-47-3	
Copper	10	mg/kg	1.8	0.55	6.667	09/29/20 06:57	10/02/20 16:52	7440-50-8	
Lead	18.5	mg/kg	0.68	0.19	6.667	09/29/20 06:57	10/02/20 16:52	7439-92-1	
Selenium	0.34J	mg/kg	0.68	0.19	6.667	09/29/20 06:57	10/02/20 16:52	7782-49-2	D3
Silver	< 0.097	mg/kg	0.34	0.097	6.667	09/29/20 06:57	10/02/20 16:52	7440-22-4	D3
Zinc	30.9	mg/kg	23.8	7.1	6.667	09/29/20 06:57	10/02/20 16:52	7440-66-6	
7471 Mercury	Analytical	Method: EP	A 7471 Prepara	ation Meth	nod: EPA	A 7471			
	Pace Anal	ytical Servic	es - Green Bay						
Mercury	0.015J	mg/kg	0.037	0.011	1	10/07/20 09:07	10/08/20 10:23	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EP	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Servic	es - Green Bay						
Acenaphthene	<2.3	ug/kg	17.9	2.3	1	10/02/20 08:09	10/05/20 18:56	83-32-9	
Acenaphthylene	5.5J	ug/kg	17.9	2.3	1	10/02/20 08:09	10/05/20 18:56	208-96-8	
Anthracene	6.9J	ug/kg	17.9	2.2	1	10/02/20 08:09	10/05/20 18:56	120-12-7	
Benzo(a)anthracene	21.9	ug/kg	17.9	2.3	1	10/02/20 08:09	10/05/20 18:56	56-55-3	
Benzo(a)pyrene	38.0	ug/kg	17.9	2.0	1	10/02/20 08:09	10/05/20 18:56	50-32-8	
Benzo(b)fluoranthene	51.0	ug/kg	17.9	2.5	1	10/02/20 08:09	10/05/20 18:56	205-99-2	
Benzo(g,h,i)perylene	43.8	ug/kg	17.9	3.1	1	10/02/20 08:09	10/05/20 18:56	191-24-2	
Benzo(k)fluoranthene	19.7	ug/kg	17.9	2.3	1	10/02/20 08:09	10/05/20 18:56	207-08-9	
Chrysene	29.3	ug/kg	17.9	3.4	1	10/02/20 08:09	10/05/20 18:56	218-01-9	
Dibenz(a,h)anthracene	7.2J	ug/kg	17.9	2.5	1	10/02/20 08:09	10/05/20 18:56	53-70-3	
Fluoranthene	34.7	ug/kg	17.9	2.1	1	10/02/20 08:09	10/05/20 18:56	206-44-0	
Fluorene	3.6J	ug/kg	17.9	2.1	1	10/02/20 08:09	10/05/20 18:56	86-73-7	
Indeno(1,2,3-cd)pyrene	30.8	ug/kg	17.9	3.7	1	10/02/20 08:09	10/05/20 18:56	193-39-5	
1-Methylnaphthalene	35.6	ug/kg	17.9	2.6	1	10/02/20 08:09	10/05/20 18:56	90-12-0	
2-Methylnaphthalene	48.9	ug/kg	17.9	2.6	1	10/02/20 08:09	10/05/20 18:56	91-57-6	
Naphthalene	33.0	ug/kg	17.9	1.7	1	10/02/20 08:09	10/05/20 18:56	91-20-3	
Phenanthrene	31.2	ug/kg	17.9	2.0	1	10/02/20 08:09	10/05/20 18:56	85-01-8	
Pyrene	36.2	ug/kg	17.9	2.6	1	10/02/20 08:09	10/05/20 18:56	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	71	%	17-100		1	10/02/20 08:09	10/05/20 18:56	321-60-8	
Terphenyl-d14 (S)	75	%	17-98		1	10/02/20 08:09	10/05/20 18:56	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EP	A 8260 Prepara	ation Meth	nod: EPA	\ 5035/5030B			
	Pace Anal	ytical Servic	es - Green Bay						
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1		10/05/20 22:53		W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-9, 0.2-4.0' Lab ID: 40215420011 Collected: 09/24/20 11:43 Received: 09/25/20 15:12 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 Prepa	ration Meth	od: EPA	A 5035/5030B			
	Pace Anal	lytical Service	es - Green Ba	у					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/02/20 11:15	10/05/20 22:53	87-61-6	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/02/20 11:15	10/05/20 22:53	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/02/20 11:15	10/05/20 22:53	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	95-63-6	W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/02/20 11:15	10/05/20 22:53	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 22:53	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/02/20 11:15	10/05/20 22:53	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	71-43-2	W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 22:53	108-86-1	W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/02/20 11:15	10/05/20 22:53	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	75-27-4	W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:53	75-25-2	W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/02/20 11:15	10/05/20 22:53	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	108-90-7	W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/02/20 11:15	10/05/20 22:53	75-00-3	W
Chloroform	<47.5	ug/kg	250	47.5	1	10/02/20 11:15	10/05/20 22:53	67-66-3	W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/02/20 11:15	10/05/20 22:53	74-87-3	W
Dibromochloromethane	<229	ug/kg	763	229	1	10/02/20 11:15	10/05/20 22:53	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:53	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/02/20 11:15	10/05/20 22:53	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53		W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	1634-04-4	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	10/02/20 11:15	10/05/20 22:53	75-09-2	W
Naphthalene	29.3J	ug/kg	97.2	29.2	1		10/05/20 22:53	91-20-3	
Styrene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	10/02/20 11:15	10/05/20 22:53	127-18-4	W
Toluene	82.3	ug/kg	64.1	26.7	1	10/02/20 11:15	10/05/20 22:53	108-88-3	
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/02/20 11:15	10/05/20 22:53	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	75-01-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-9, 0.2-4.0' Lab ID: 40215420011 Collected: 09/24/20 11:43 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/02/20 11:15	10/05/20 22:53	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/02/20 11:15	10/05/20 22:53	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/02/20 11:15	10/05/20 22:53	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/02/20 11:15	10/05/20 22:53	103-65-1	W
o-Xylene	33.6J	ug/kg	64.1	26.7	1	10/02/20 11:15	10/05/20 22:53	95-47-6	
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:53	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/02/20 11:15	10/05/20 22:53	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/02/20 11:15	10/05/20 22:53	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/02/20 11:15	10/05/20 22:53	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/02/20 11:15	10/05/20 22:53	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	89	%	58-145		1	10/02/20 11:15	10/05/20 22:53	1868-53-7	
Toluene-d8 (S)	93	%	56-140		1	10/02/20 11:15	10/05/20 22:53	2037-26-5	
4-Bromofluorobenzene (S)	80	%	52-137		1	10/02/20 11:15	10/05/20 22:53	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	6.4	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-12, 0.2-5.0' Lab ID: 40215420012 Collected: 09/24/20 12:15 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EPA	\ 8081B Prep	aration Me	thod: Ef	PA 3550			
	Pace Anal	ytical Service	es - Minneapo	lis					
Aldrin	<5.7	ug/kg	18.9	5.7	10	10/01/20 15:08	10/02/20 16:41	309-00-2	
alpha-BHC	<2.4	ug/kg	8.1	2.4	10	10/01/20 15:08	10/02/20 16:41	319-84-6	
beta-BHC	<4.1	ug/kg	13.5	4.1	10	10/01/20 15:08	10/02/20 16:41		
delta-BHC	<3.1	ug/kg	10.3	3.1	10	10/01/20 15:08	10/02/20 16:41		
gamma-BHC (Lindane)	4.2J	ug/kg	7.5	2.2	10	10/01/20 15:08	10/02/20 16:41		
Chlordane (Technical)	<58.4	ug/kg	194	58.4	10	10/01/20 15:08	10/02/20 16:41		
alpha-Chlordane	<2.4	ug/kg	8.1	2.4	10	10/01/20 15:08	10/02/20 16:41		
gamma-Chlordane	<5.7	ug/kg	18.9	5.7	10	10/01/20 15:08	10/02/20 16:41		
4,4'-DDD	<4.1	ug/kg ug/kg	13.6	4.1	10	10/01/20 15:08	10/02/20 16:41		
4,4'-DDE	<3.8	ug/kg ug/kg	12.8	3.8	10	10/01/20 15:08	10/02/20 16:41		
4,4'-DDT	<8.6	ug/kg ug/kg	28.7	8.6	10	10/01/20 15:08	10/02/20 16:41		
Dieldrin	<3.7	ug/kg ug/kg	12.3	3.7	10	10/01/20 15:08	10/02/20 16:41		
Endosulfan I	<3.0		9.8	3.0	10	10/01/20 15:08	10/02/20 16:41		
Endosulfan II	<5.9	ug/kg	9.6 19.5	5.9	10	10/01/20 15:08	10/02/20 16:41		
	<5.9 <7.1	ug/kg	23.6	7.1	10		10/02/20 16:41		
Endosulfan sulfate		ug/kg		4.0		10/01/20 15:08 10/01/20 15:08			
Endrin	<4.0	ug/kg	13.4		10		10/02/20 16:41		
Endrin aldehyde	<8.0	ug/kg	26.6	8.0	10	10/01/20 15:08	10/02/20 16:41		
Endrin ketone	<9.8	ug/kg	32.6	9.8	10	10/01/20 15:08	10/02/20 16:41		
Heptachlor	<4.0	ug/kg	13.3	4.0	10	10/01/20 15:08	10/02/20 16:41		
Heptachlor epoxide	<2.7	ug/kg	9.1	2.7	10	10/01/20 15:08	10/02/20 16:41		
Methoxychlor	<58.5	ug/kg	195	58.5	10	10/01/20 15:08	10/02/20 16:41		
Toxaphene	<157	ug/kg	522	157	10	10/01/20 15:08	10/02/20 16:41	8001-35-2	
Surrogates	440	0/	20.450		40	40/04/00 45:00	40/00/00 40:44	077 00 0	Do
Tetrachloro-m-xylene (S)	118	%.	30-150		10	10/01/20 15:08	10/02/20 16:41		D3
Decachlorobiphenyl (S)	126	%.	30-150		10	10/01/20 15:08	10/02/20 16:41	2051-24-3	
8082A GCS PCB			8082A Prepa		thod: EF	PA 3541			
	Pace Anal	ytical Service	es - Green Ba	y					
PCB-1016 (Aroclor 1016)	<16.1	ug/kg	53.0	16.1	1	09/28/20 14:42	09/29/20 20:01	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.1	ug/kg ug/kg	53.0	16.1	1	09/28/20 14:42		11104-28-2	
PCB-1232 (Aroclor 1232)	<16.1	ug/kg ug/kg	53.0	16.1	1	09/28/20 14:42			
PCB-1242 (Aroclor 1242)	<16.1	ug/kg ug/kg	53.0	16.1	1		09/29/20 20:01		
PCB-1248 (Aroclor 1248)	<16.1	ug/kg ug/kg	53.0	16.1	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254)	35.7J	ug/kg ug/kg	53.0	16.1	1	09/28/20 14:42	09/29/20 20:01		
PCB-1260 (Aroclor 1260)	<16.1	ug/kg ug/kg	53.0	16.1	1	09/28/20 14:42	09/29/20 20:01	11096-82-5	
PCB, Total	35.7J	ug/kg ug/kg	53.0	16.1	1		09/29/20 20:01		
Surrogates	33.13	ug/kg	55.0	10.1	'	03/20/20 14.42	03123120 20.01	1000-00-0	
Tetrachloro-m-xylene (S)	88	%	69-115		1	09/28/20 14:42	09/29/20 20:01	877-09-8	
Decachlorobiphenyl (S)	84	%	62-104		1		09/29/20 20:01		
2 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0-1	,,	0 <u>_</u> 10¬		•	30/20/20 17.72	30,20,20 20.01	_00 · 2 · 0	
6020 MET ICPMS			A 6020 Prepai es - Green Bay		od: EPA	A 3050			
Arconic	2.8	•	0.89		6 667	00/20/20 06:57	10/02/20 16:50	7440 29 2	
Arsenic		mg/kg		0.27		09/29/20 06:57			
Barium	35.2	mg/kg	0.88	0.26	0.067	09/29/20 06:57	10/02/20 16:59	1440-39-3	



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-12, 0.2-5.0' Lab ID: 40215420012 Collected: 09/24/20 12:15 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EP	A 6020 Prepara	ation Meth	nod: EPA	A 3050			
	Pace Anal	ytical Servic	es - Green Bay						
Cadmium	<0.098	mg/kg	0.67	0.098	6.667	09/29/20 06:57	10/02/20 16:59	7440-43-9	D3
Chromium	10.2	mg/kg	2.0	0.61	6.667	09/29/20 06:57	10/02/20 16:59		
Copper	17.0	mg/kg	1.8	0.54	6.667	09/29/20 06:57	10/02/20 16:59	7440-50-8	
Lead	24.8	mg/kg	0.67	0.18	6.667	09/29/20 06:57	10/02/20 16:59	7439-92-1	
Selenium	0.48J	mg/kg	0.67	0.18	6.667	09/29/20 06:57	10/02/20 16:59	7782-49-2	D3
Silver	< 0.096	mg/kg	0.34	0.096	6.667	09/29/20 06:57	10/02/20 16:59	7440-22-4	D3
Zinc	48.3	mg/kg	23.4	7.0	6.667	09/29/20 06:57	10/02/20 16:59	7440-66-6	
7471 Mercury	Analytical	Method: EP	A 7471 Prepara	ation Meth	nod: EPA	\ 7471			
	Pace Anal	ytical Servic	es - Green Bay						
Mercury	0.012J	mg/kg	0.035	0.010	1	10/07/20 09:07	10/08/20 10:25	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EP	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Servic	es - Green Bay						
Acenaphthene	8.8J	ug/kg	35.5	4.6	2	10/02/20 08:09	10/05/20 19:30	83-32-9	
Acenaphthylene	32.2J	ug/kg	35.5	4.5	2	10/02/20 08:09	10/05/20 19:30	208-96-8	
Anthracene	28.3J	ug/kg	35.5	4.4	2	10/02/20 08:09	10/05/20 19:30	120-12-7	
Benzo(a)anthracene	113	ug/kg	35.5	4.6	2	10/02/20 08:09	10/05/20 19:30	56-55-3	
Benzo(a)pyrene	152	ug/kg	35.5	4.0	2	10/02/20 08:09	10/05/20 19:30	50-32-8	
Benzo(b)fluoranthene	231	ug/kg	35.5	4.9	2	10/02/20 08:09	10/05/20 19:30	205-99-2	
Benzo(g,h,i)perylene	130	ug/kg	35.5	6.2	2	10/02/20 08:09	10/05/20 19:30	191-24-2	
Benzo(k)fluoranthene	87.8	ug/kg	35.5	4.5	2	10/02/20 08:09	10/05/20 19:30	207-08-9	
Chrysene	150	ug/kg	35.5	6.7	2	10/02/20 08:09	10/05/20 19:30	218-01-9	
Dibenz(a,h)anthracene	29.5J	ug/kg	35.5	4.9	2	10/02/20 08:09	10/05/20 19:30	53-70-3	
Fluoranthene	257	ug/kg	35.5	4.2	2	10/02/20 08:09	10/05/20 19:30	206-44-0	
Fluorene	17.3J	ug/kg	35.5	4.3	2	10/02/20 08:09	10/05/20 19:30	86-73-7	
Indeno(1,2,3-cd)pyrene	105	ug/kg	35.5	7.4	2	10/02/20 08:09	10/05/20 19:30	193-39-5	
1-Methylnaphthalene	67.0	ug/kg	35.5	5.2	2	10/02/20 08:09	10/05/20 19:30		
2-Methylnaphthalene	77.3	ug/kg	35.5	5.2	2	10/02/20 08:09	10/05/20 19:30	91-57-6	
Naphthalene	71.2	ug/kg	35.5	3.5	2	10/02/20 08:09	10/05/20 19:30	91-20-3	
Phenanthrene	114	ug/kg	35.5	4.1	2	10/02/20 08:09	10/05/20 19:30	85-01-8	
Pyrene	184	ug/kg	35.5	5.2	2	10/02/20 08:09	10/05/20 19:30	129-00-0	
Surrogates		0 0							
2-Fluorobiphenyl (S)	71	%	17-100		2	10/02/20 08:09	10/05/20 19:30	321-60-8	
Terphenyl-d14 (S)	72	%	17-98		2	10/02/20 08:09	10/05/20 19:30	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EP	A 8260 Prepara	ation Meth	nod: EPA	A 5035/5030B			
	Pace Anal	ytical Servic	es - Green Bay						
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1		10/05/20 15:05	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	75-35-4	W

# **REPORT OF LABORATORY ANALYSIS**

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Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-12, 0.2-5.0' Lab ID: 40215420012 Collected: 09/24/20 12:15 Received: 09/25/20 15:12 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 Prepa	ration Metho	od: EP/	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	y					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/05/20 09:00	10/05/20 15:05		W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/05/20 09:00	10/05/20 15:05		W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/05/20 09:00	10/05/20 15:05		W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05		W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/05/20 09:00	10/05/20 15:05		W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 15:05		W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 15:05	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	71-43-2	W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 15:05		W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/05/20 09:00	10/05/20 15:05	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	75-27-4	W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:05		W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/05/20 09:00	10/05/20 15:05	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05		W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/05/20 09:00	10/05/20 15:05	75-00-3	W
Chloroform	<47.5	ug/kg	250	47.5	1	10/05/20 09:00	10/05/20 15:05		W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/05/20 09:00	10/05/20 15:05	74-87-3	W
Dibromochloromethane	<229	ug/kg	763	229	1	10/05/20 09:00	10/05/20 15:05	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:05	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/05/20 09:00	10/05/20 15:05	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05		W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1		10/05/20 15:05		W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	10/05/20 09:00	10/05/20 15:05	75-09-2	W
Naphthalene	49.2J	ug/kg	96.6	29.0	1		10/05/20 15:05		
Styrene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1		10/05/20 15:05		W
Toluene	<25.0	ug/kg	60.0	25.0	1				W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/05/20 09:00	10/05/20 15:05		W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1		10/05/20 15:05	75-01-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-12, 0.2-5.0' Lab ID: 40215420012 Collected: 09/24/20 12:15 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/05/20 09:00	10/05/20 15:05	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/05/20 09:00	10/05/20 15:05	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/05/20 09:00	10/05/20 15:05	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:05	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:05	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:05	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 15:05	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/05/20 09:00	10/05/20 15:05	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/05/20 09:00	10/05/20 15:05	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	95	%	58-145		1	10/05/20 09:00	10/05/20 15:05	1868-53-7	
Toluene-d8 (S)	96	%	56-140		1	10/05/20 09:00	10/05/20 15:05	2037-26-5	
4-Bromofluorobenzene (S)	83	%	52-137		1	10/05/20 09:00	10/05/20 15:05	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	5.8	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-12, 5.0-7.5' Lab ID: 40215420013 Collected: 09/24/20 12:20 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EPA	\ 8081B Prepa	aration Me	thod: Ef	PA 3550			
	Pace Anal	ytical Service	es - Minneapol	is					
Aldrin	<31.5	ug/kg	105	31.5	50	10/01/20 15:08	10/02/20 19:27	309-00-2	
alpha-BHC	<13.5	ug/kg	44.9	13.5	50	10/01/20 15:08	10/02/20 19:27		
beta-BHC	<22.6	ug/kg	75.2	22.6	50	10/01/20 15:08	10/02/20 19:27		
delta-BHC	<17.2	ug/kg	57.2	17.2	50	10/01/20 15:08	10/02/20 19:27		
gamma-BHC (Lindane)	<12.5	ug/kg	41.5	12.5	50		10/02/20 19:27		
Chlordane (Technical)	<324	ug/kg	1080	324	50	10/01/20 15:08	10/02/20 19:27		
alpha-Chlordane	<13.6	ug/kg	45.3	13.6	50	10/01/20 15:08	10/02/20 19:27		
gamma-Chlordane	<31.6	ug/kg	105	31.6	50	10/01/20 15:08	10/02/20 19:27		
4,4'-DDD	<22.8	ug/kg	75.8	22.8	50	10/01/20 15:08	10/02/20 19:27		
4,4'-DDE	<21.4	ug/kg	71.1	21.4	50	10/01/20 15:08	10/02/20 19:27		
4,4'-DDT	<48.0	ug/kg ug/kg	160	48.0	50	10/01/20 15:08	10/02/20 19:27		
Dieldrin	<20.5	ug/kg ug/kg	68.2	20.5	50	10/01/20 15:08	10/02/20 19:27		
Endosulfan I	<16.4	ug/kg ug/kg	54.7	16.4	50	10/01/20 15:08	10/02/20 19:27		
Endosulfan II	<32.6	ug/kg ug/kg	109	32.6	50	10/01/20 15:08	10/02/20 19:27		
Endosulfan sulfate	<39.4		131	39.4	50	10/01/20 15:08	10/02/20 19:27		
Endrin	<39.4 <22.4	ug/kg	74.7	22.4	50	10/01/20 15:08	10/02/20 19:27		
		ug/kg		44.3					
Endrin aldehyde	<44.3	ug/kg	148		50 50	10/01/20 15:08 10/01/20 15:08	10/02/20 19:27		
Endrin ketone	<54.4	ug/kg	181	54.4	50		10/02/20 19:27 10/02/20 19:27		
Heptachlor	<22.1	ug/kg	73.7	22.1	50	10/01/20 15:08			
Heptachlor epoxide	<15.2	ug/kg	50.6	15.2	50	10/01/20 15:08	10/02/20 19:27		
Methoxychlor	<325	ug/kg	1080	325	50	10/01/20 15:08	10/02/20 19:27		
Toxaphene	<871	ug/kg	2900	871	50	10/01/20 15:08	10/02/20 19:27	8001-35-2	
Surrogates Tetraphlers may lene (C)	104	%.	20.450		50	10/01/20 15:00	10/02/20 10:27	077 00 0	D2 v4
Tetrachloro-m-xylene (S) Decachlorobiphenyl (S)	124 148	%. %.	30-150 30-150		50 50	10/01/20 15:08 10/01/20 15:08	10/02/20 19:27 10/02/20 19:27		D3,v1
Decachioropiphenyi (3)	140	70.	30-130		50	10/01/20 15.06	10/02/20 19.27	2031-24-3	
8082A GCS PCB	Analytical	Method: EPA	\ 8082A Prepa	aration Me	thod: EF	PA 3541			
	Pace Anal	ytical Service	es - Green Bay	/					
PCB-1016 (Aroclor 1016)	<17.9	ug/kg	58.9	17.9	1	09/28/20 14:42	09/29/20 20:23	1267/-11-2	
PCB-1221 (Aroclor 1221)	<17.9	ug/kg ug/kg	58.9	17.9	1	09/28/20 14:42			
PCB-1232 (Aroclor 1232)	<17.9	ug/kg ug/kg	58.9	17.9	1	09/28/20 14:42			
PCB-1242 (Aroclor 1242)	<17.9	ug/kg ug/kg	58.9	17.9	1	09/28/20 14:42			
PCB-1248 (Aroclor 1248)	<17.9	ug/kg ug/kg	58.9	17.9	1	09/28/20 14:42			
,	48.7J		58.9	17.9	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254) PCB-1260 (Aroclor 1260)	38.8J	ug/kg ug/kg	58.9	17.9	1	09/28/20 14:42			
PCB, Total	87.4		58.9	17.9	1	09/28/20 14:42			
-	07.4	ug/kg	56.9	17.9	1	09/20/20 14.42	09/29/20 20.23	1330-30-3	
Surrogates Tetrachloro-m-xylene (S)	87	%	69-115		1	09/28/20 14:42	09/29/20 20:23	877-09-8	
Decachlorobiphenyl (S)	81	%	62-104		1		09/29/20 20:23		
Decacinoropiphenyi (a)							00/20/20 20.20	2001-24-0	
6020 MET ICPMS			A 6020 Prepar		od: EPA	3050			
	Pace Anal	ytical Service	es - Green Bay	/					
	5.1	mg/kg	0.96	0.29	6 667	09/29/20 06:57	10/02/20 17:06	7440-38-2	
Arsenic	J. I	mg/kg	0.50	0.20	0.001	00/20/20 00.01	10/02/20 17.00		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-12, 5.0-7.5' Lab ID: 40215420013 Collected: 09/24/20 12:20 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EP	A 6020 Prepar	ation Meth	nod: EPA	A 3050			
	Pace Anal	ytical Servic	es - Green Bay	/					
Cadmium	0.39J	mg/kg	0.72	0.11	6.667	09/29/20 06:57	10/02/20 17:06	7440-43-9	D3
Chromium	12.5	mg/kg	2.2	0.66	6.667	09/29/20 06:57	10/02/20 17:06		
Copper	24.3	mg/kg	1.9	0.58	6.667	09/29/20 06:57	10/02/20 17:06		
Lead	207	mg/kg	0.72	0.20	6.667	09/29/20 06:57	10/02/20 17:06		
Selenium	0.57J	mg/kg	0.72	0.20	6.667	09/29/20 06:57	10/02/20 17:06		D3
Silver	0.14J	mg/kg	0.36	0.10	6.667	09/29/20 06:57	10/02/20 17:06		D3
Zinc	84.3	mg/kg	25.2	7.6	6.667	09/29/20 06:57	10/02/20 17:06		
7471 Mercury	Analytical	Method: EPA	A 7471 Prepar	ation Meth	nod: EPA	A 7471			
	Pace Anal	ytical Servic	es - Green Bay	/					
Mercury	0.074	mg/kg	0.039	0.011	1	10/07/20 09:07	10/08/20 10:27	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EP	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Servic	es - Green Bay	/					
Acenaphthene	54.3J	ug/kg	197	25.6	10	10/02/20 08:09	10/05/20 18:21	83-32-9	
Acenaphthylene	159J	ug/kg	197	24.8	10	10/02/20 08:09	10/05/20 18:21	208-96-8	
Anthracene	391	ug/kg	197	24.5	10	10/02/20 08:09	10/05/20 18:21	120-12-7	
Benzo(a)anthracene	776	ug/kg	197	25.5	10	10/02/20 08:09	10/05/20 18:21	56-55-3	
Benzo(a)pyrene	926	ug/kg	197	22.4	10	10/02/20 08:09	10/05/20 18:21	50-32-8	
Benzo(b)fluoranthene	1060	ug/kg	197	27.4	10	10/02/20 08:09	10/05/20 18:21	205-99-2	
Benzo(g,h,i)perylene	563	ug/kg	197	34.6	10	10/02/20 08:09	10/05/20 18:21	191-24-2	
Benzo(k)fluoranthene	466	ug/kg	197	25.2	10	10/02/20 08:09	10/05/20 18:21	207-08-9	
Chrysene	860	ug/kg	197	37.2	10	10/02/20 08:09	10/05/20 18:21	218-01-9	
Dibenz(a,h)anthracene	162J	ug/kg	197	27.3	10	10/02/20 08:09	10/05/20 18:21	53-70-3	
Fluoranthene	1670	ug/kg	197	23.3	10	10/02/20 08:09	10/05/20 18:21	206-44-0	
Fluorene	130J	ug/kg	197	23.6	10	10/02/20 08:09	10/05/20 18:21	86-73-7	
Indeno(1,2,3-cd)pyrene	488	ug/kg	197	41.1	10	10/02/20 08:09	10/05/20 18:21	193-39-5	
1-Methylnaphthalene	61.6J	ug/kg	197	28.8	10	10/02/20 08:09	10/05/20 18:21	90-12-0	
2-Methylnaphthalene	73.2J	ug/kg	197	28.8	10	10/02/20 08:09	10/05/20 18:21		
Naphthalene	82.5J	ug/kg	197	19.2	10	10/02/20 08:09	10/05/20 18:21		
Phenanthrene	1020	ug/kg	197	22.6	10	10/02/20 08:09	10/05/20 18:21		
Pyrene	1290	ug/kg	197	29.0	10	10/02/20 08:09	10/05/20 18:21		
Surrogates		3 3							
2-Fluorobiphenyl (S)	63	%	17-100		10	10/02/20 08:09	10/05/20 18:21	321-60-8	
Terphenyl-d14 (S)	68	%	17-98		10	10/02/20 08:09	10/05/20 18:21	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EP	A 8260 Prepar	ation Meth	nod: EPA	A 5035/5030B			
	Pace Anal	ytical Servic	es - Green Bay	/					
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22	71-55-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1		10/05/20 15:22		W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1		10/05/20 15:22		W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00			W
,	1-0.0		00.0	_0.0	•				



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-12, 5.0-7.5' Lab ID: 40215420013 Collected: 09/24/20 12:20 Received: 09/25/20 15:12 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 Prepa	ration Meth	od: EPA	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	y					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/05/20 09:00	10/05/20 15:22	87-61-6	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/05/20 09:00	10/05/20 15:22	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/05/20 09:00	10/05/20 15:22	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/05/20 09:00	10/05/20 15:22	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/05/20 09:00	10/05/20 15:22		W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/05/20 09:00	10/05/20 15:22		W
Chloroform	<47.5	ug/kg	250	47.5	1	10/05/20 09:00	10/05/20 15:22		W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Dibromochloromethane	<229	ug/kg	763	229	1	10/05/20 09:00	10/05/20 15:22		W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/05/20 09:00	10/05/20 15:22		W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22	1634-04-4	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	10/05/20 09:00	10/05/20 15:22	75-09-2	W
Naphthalene	52.7J	ug/kg	108	32.2	1		10/05/20 15:22		
Styrene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22		W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1		10/05/20 15:22		W
Toluene	<25.0	ug/kg	60.0	25.0	1		10/05/20 15:22		W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1		10/05/20 15:22		W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1		10/05/20 15:22		W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1		10/05/20 15:22		W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-12, 5.0-7.5' Lab ID: 40215420013 Collected: 09/24/20 12:20 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/05/20 09:00	10/05/20 15:22	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/05/20 09:00	10/05/20 15:22	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/05/20 09:00	10/05/20 15:22	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:22	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:22	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:22	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 15:22	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/05/20 09:00	10/05/20 15:22	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/05/20 09:00	10/05/20 15:22	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	97	%	58-145		1	10/05/20 09:00	10/05/20 15:22	1868-53-7	
Toluene-d8 (S)	98	%	56-140		1	10/05/20 09:00	10/05/20 15:22	2037-26-5	
4-Bromofluorobenzene (S)	85	%	52-137		1	10/05/20 09:00	10/05/20 15:22	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	15.4	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-13, 0.2-4.0' Lab ID: 40215420014 Collected: 09/24/20 12:25 Received: 09/25/20 15:12 Matrix: Solid

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

Repair   Property	Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Algin	8081B GCS Pesticides	Analytical	Method: EPA	\ 8081B Prep	aration Me	thod: El	PA 3550			
Apha B-HC		Pace Anal	ytical Service	es - Minneapo	lis					
Apha B-HC	Aldrin	<29.5	ua/ka	98.2	29.5	50	10/01/20 15:08	10/02/20 19:46	309-00-2	
Deta BHC										
gelma-BHC (Lindane)	•		0 0							
Samma-BHC (Lindane)										
Agency										
Apha Chloridane   41.7   ug/kg	, ,	<304	0 0	1010	304	50	10/01/20 15:08	10/02/20 19:46	57-74-9	
gamma-Chlordane         429.6   ug/kg         98.6   29.6   50   10/01/20 15:08   10/02/20 19:46   51/03-74-2         11/03/20 19:46   51/03-74-2         11/03/20 19:46   51/03-74-2         11/03/20 19:46   51/03-74-2         11/03/20 19:46   51/03-74-2         11/03/20 19:46   51/03-74-2         11/03/20 19:46   51/03-74-2         11/03/20 19:46   51/03-74-2         11/03/20 19:46   51/03-74-2         11/03/20 19:46   51/03-74-2         11/03/20 19:46   51/03-74-2         11/03/20 19:46   50/03-29-3         11/03/20 19:46   50/03/20 19:46   50/03/20 19:46   50/03/20 19:46   50/03/20 19:46   50/03/20 19:46   50/03/20 19:46   50/03/20 19:46   50/03/20 19:46   50/03/20 19:46   50/03/20 19:46   50/03/20 19:46   50/03/20	,			42.4			10/01/20 15:08	10/02/20 19:46	5103-71-9	
Â-I-DDD         <21.3         Ug/kg         71.0         21.3         50         10/01/20 15:08         10/02/20 19:46         72-54-8         4-4-DDE         4.4-DDE         <20.0         ug/kg         66.6         20.0         50         10/01/20 15:08         10/02/20 19:46         72-54-9         4.4-DDT         <44.9         ug/kg         61.0         44.9         50         10/01/20 15:08         10/02/20 19:46         72-54-9         4.4-DDT         44.9         ug/kg         63.9         19.2         50         10/01/20 15:08         10/02/20 19:46         60-57-1         Endosulfan         41.5         40/02/20 19:46         72-8-8         85-9-88         8         10/01/20 15:08         10/02/20 19:46         60-67-1         40-60         40-60         40-72-1         ug/kg         61.3         50         10/01/20 15:08         10/02/20 19:46         60-67-1         8         85-98-88         8         10.0         10/01/20 15:08         10/02/20 19:46         60-67-1         8         60-00/10/20 15:08         10/02/20 19:46         60-67-1         8         60-00/20 19:46         60-10-20 19:46         80-10-20 19:46         80-10-20 19:46         80-10-20 19:46         80-10-20 19:46         80-10-20 19:46         80-10-20 19:46         80-10-20 19:46         80-10-20 19:46         80-10-20 19:4	gamma-Chlordane	<29.6		98.6	29.6	50	10/01/20 15:08	10/02/20 19:46	5103-74-2	
4.4-DDE	4,4'-DDD	<21.3		71.0	21.3	50	10/01/20 15:08	10/02/20 19:46	72-54-8	
A4-DDT		<20.0				50	10/01/20 15:08	10/02/20 19:46	72-55-9	
Endosulfan I   45.4   19/kg   51.2   15.4   50   10/01/20 15:08   070/20 19:46   959-98-8   Endosulfan II   40.5   19/kg   102   30.5   50   10/01/20 15:08   10/02/20 19:46   3231-36-59   Endosulfan Sulfate   46.5   19/kg   69.9   21.0   50   10/01/20 15:08   10/02/20 19:46   72-20-8   Endrin   421.0   19/kg   69.9   21.0   50   10/01/20 15:08   10/02/20 19:46   72-20-8   Endrin aldehyde   41.5   19/kg   138   41.5   50   10/01/20 15:08   10/02/20 19:46   72-20-8   Endrin aldehyde   41.5   19/kg   138   41.5   50   10/01/20 15:08   10/02/20 19:46   72-20-8   Endrin aldehyde   41.2   19/kg   170   51.0   50.0   10/01/20 15:08   10/02/20 19:46   72-41-93-4   Endrin ketone   451.0   19/kg   47.4   14.2   50   10/01/20 15:08   10/02/20 19:46   76-44-8   Endrin ketone   41.2   19/kg   47.4   14.2   50   10/01/20 15:08   10/02/20 19:46   76-44-8   Endrin ketone   41.2   19/kg   47.4   14.2   50   10/01/20 15:08   10/02/20 19:46   76-44-8   Endrin ketone   41.2   19/kg   47.4   14.2   50   10/01/20 15:08   10/02/20 19:46   76-44-8   Endrin ketone   41.2   19/kg   2720   816   50   10/01/20 15:08   10/02/20 19:46   8010-35-2   Endrin ketone   41.2   19/kg   2720   816   50   10/01/20 15:08   10/02/20 19:46   8010-35-2   Endrin ketone   41.2   19/kg   2720   816   50   10/01/20 15:08   10/02/20 19:46   8010-35-2   Endrin ketone   41.2   19/kg   2720   816   50   10/01/20 15:08   10/02/20 19:46   8010-35-2   Endrin ketone   41.2   19/kg   2720   816   50   10/01/20 15:08   10/02/20 19:46   8010-35-2   Endrin ketone   41.2   19/kg   2720   816   50   10/01/20 15:08   10/02/20 19:46   8010-35-2   Endrin ketone   41.2   19/kg   2720   81.5   19/kg   2720	4,4'-DDT	<44.9		150	44.9	50	10/01/20 15:08	10/02/20 19:46	50-29-3	
Endosulfan II         430.5         ug/kg         102         30.5         50         10/01/20 15:08         10/02/20 19:46         321-36:59           Endosulfan sulfate         436.9         ug/kg         69.9         21.0         50         10/01/20 15:08         10/02/20 19:46         722-0-8           Endrin         421.0         ug/kg         69.9         21.0         50         10/01/20 15:08         10/02/20 19:46         722-0-8           Endrin aldehyde         41.5         ug/kg         61.0         51.0         10/01/20 15:08         10/02/20 19:46         7342-93-4           Endrin ketone         41.2         ug/kg         69.0         20.7         50         10/01/20 15:08         10/02/20 19:46         7344-78           Heptachlor epoxide         41.2         ug/kg         1010         304         50         10/01/20 15:08         10/02/20 19:46         72-43-5           Toxaphene         4816         ug/kg         2720         816         50         10/01/20 15:08         10/02/20 19:46         72-43-5           Toxaphene         4816         ug/kg         2720         816         50         10/01/20 15:08         10/02/20 19:46         877-09-8         D3,11           Eterachoro	Dieldrin	<19.2	ug/kg	63.9	19.2	50	10/01/20 15:08	10/02/20 19:46	60-57-1	
Endosulfan II         430.5         ug/kg         102         30.5         50         10/01/20 15:08         10/02/20 19:46         321-36:59           Endosulfan sulfate         436.9         ug/kg         69.9         21.0         50         10/01/20 15:08         10/02/20 19:46         722-0-8           Endrin         421.0         ug/kg         69.9         21.0         50         10/01/20 15:08         10/02/20 19:46         722-0-8           Endrin aldehyde         41.5         ug/kg         61.0         51.0         10/01/20 15:08         10/02/20 19:46         7342-93-4           Endrin ketone         41.2         ug/kg         69.0         20.7         50         10/01/20 15:08         10/02/20 19:46         7344-78           Heptachlor epoxide         41.2         ug/kg         1010         304         50         10/01/20 15:08         10/02/20 19:46         72-43-5           Toxaphene         4816         ug/kg         2720         816         50         10/01/20 15:08         10/02/20 19:46         72-43-5           Toxaphene         4816         ug/kg         2720         816         50         10/01/20 15:08         10/02/20 19:46         877-09-8         D3,11           Eterachoro	Endosulfan I	<15.4	ug/kg	51.2	15.4	50	10/01/20 15:08	10/02/20 19:46	959-98-8	
Endosulfan sulfate         436.9         ug/kg         69.9         21.0         50.1         10/01/20 15:08         10/02/20 19:46         72-20-8         Redirin         421.0         ug/kg         69.9         21.0         50.1         10/01/20 15:08         10/02/20 19:46         72-20-8 </td <td>Endosulfan II</td> <td>&lt;30.5</td> <td></td> <td>102</td> <td>30.5</td> <td>50</td> <td>10/01/20 15:08</td> <td>10/02/20 19:46</td> <td>33213-65-9</td> <td></td>	Endosulfan II	<30.5		102	30.5	50	10/01/20 15:08	10/02/20 19:46	33213-65-9	
Endrin	Endosulfan sulfate	<36.9		123	36.9	50	10/01/20 15:08	10/02/20 19:46	1031-07-8	
Endrin ketone	Endrin	<21.0		69.9	21.0	50	10/01/20 15:08	10/02/20 19:46	72-20-8	
Heptachlor	Endrin aldehyde	<41.5	ug/kg	138	41.5	50	10/01/20 15:08	10/02/20 19:46	7421-93-4	
Heptachlor epoxide	Endrin ketone	<51.0	ug/kg	170	51.0	50	10/01/20 15:08	10/02/20 19:46	53494-70-5	
Heptachlor epoxide	Heptachlor	<20.7		69.0	20.7	50	10/01/20 15:08	10/02/20 19:46	76-44-8	
Toxaphene   Surrogates   Tetrachloro-m-xylene (S)   124   %.   30-150   50   10/01/20 15:08   10/02/20 19:46   807-09-8   D3,v1	Heptachlor epoxide	<14.2	ug/kg	47.4	14.2	50	10/01/20 15:08	10/02/20 19:46	1024-57-3	
Surrigates   124   %.   30-150   50   10/01/20 15:08   10/02/20 19:46   877-09-8   D3,v1   Decachlorobiphenyl (S)   131   %.   30-150   50   10/01/20 15:08   10/02/20 19:46   2051-24-3   Pace Analytical Method: EPA 8082A Preparation Method: EPA 3541   Pace Analytical Services - Green Bay	Methoxychlor			1010	304	50	10/01/20 15:08	10/02/20 19:46	72-43-5	
Tetrachloro-m-xylene (S) Decachlorobiphenyl (S) 131 %. 30-150 10/01/20 15:08 10/02/20 19:46 2051-24-3  8082A GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay  PCB-1016 (Aroclor 1016) 16.8 ug/kg 55.3 16.8 1 09/28/20 14:42 PCB-1221 (Aroclor 1221) 16.8 ug/kg 55.3 16.8 1 09/28/20 14:42 PCB-1232 (Aroclor 1232) 16.8 ug/kg 55.3 16.8 1 09/28/20 14:42 PCB-1242 (Aroclor 1232) 16.8 ug/kg 55.3 16.8 1 09/28/20 14:42 PCB-1248 (Aroclor 1242) 16.8 ug/kg 55.3 16.8 1 09/28/20 14:42 PCB-1248 (Aroclor 1242) 16.8 ug/kg 55.3 16.8 1 09/28/20 14:42 PCB-1248 (Aroclor 1248) 16.8 ug/kg 55.3 16.8 1 09/28/20 14:42 PCB-1248 (Aroclor 1248) 16.8 ug/kg 55.3 16.8 1 09/28/20 14:42 PCB-1254 (Aroclor 1260) 16.8 ug/kg 55.3 16.8 1 09/28/20 14:42 PCB-1256 (Aroclor 1260) 16.8 ug/kg	Toxaphene	<816	ug/kg	2720	816	50	10/01/20 15:08	10/02/20 19:46	8001-35-2	
Decachlorobiphenyl (S)   131   %.   30-150   50   10/01/20 15:08   10/02/20 19:46   2051-24-3	Surrogates									
Analytical Method: EPA 8082A Preparation Method: EPA 3541 Pace Analytical Services - Green Bay  PCB-1016 (Aroclor 1016) PCB-1016 (Aroclor 1016) PCB-1221 (Aroclor 1221) PCB-1232 (Aroclor 1221) PCB-1232 (Aroclor 1232) PCB-1242 (Aroclor 1242) PCB-1242 (Aroclor 1242) PCB-1244 (Aroclor 1242) PCB-1248 (Aroclor 1248) PCB-1248 (Aroclor 1254) PCB-1254 (Aroclor 1254) PCB-1260 (Aroclor 1260) PCB-12	Tetrachloro-m-xylene (S)			30-150		50	10/01/20 15:08	10/02/20 19:46	877-09-8	D3,v1
Pace Analytical Services - Green Bay	Decachlorobiphenyl (S)	131	%.	30-150		50	10/01/20 15:08	10/02/20 19:46	2051-24-3	
PCB-1016 (Aroclor 1016)	8082A GCS PCB	Analytical	Method: EPA	8082A Prepa	aration Me	thod: EF	PA 3541			
PCB-1221 (Aroclor 1221)		Pace Anal	ytical Service	es - Green Ba	/					
PCB-1221 (Aroclor 1221)	PCB-1016 (Aroclor 1016)	<16.8	ua/ka	55.3	16.8	1	09/28/20 14:42	09/29/20 20:45	12674-11-2	
PCB-1232 (Aroclor 1232)       <16.8       ug/kg       55.3       16.8       1       09/28/20 14:42       09/29/20 20:45       11141-16-5         PCB-1242 (Aroclor 1242)       <16.8										
PCB-1242 (Aroclor 1242) PCB-1248 (Aroclor 1248) PCB-1248 (Aroclor 1248) PCB-1248 (Aroclor 1248) PCB-1254 (Aroclor 1254) PCB-1254 (Aroclor 1254) PCB-1254 (Aroclor 1254) PCB-1250 (Aroclor 1260) PCB-1260 (Aroclor 1260) PCB-12	· · · · · · · · · · · · · · · · · · ·	<16.8				1	09/28/20 14:42	09/29/20 20:45	11141-16-5	
PCB-1248 (Aroclor 1248)         <16.8         ug/kg         55.3         16.8         1         09/28/20 14:42         09/29/20 20:45         12672-29-6           PCB-1254 (Aroclor 1254)         156         ug/kg         55.3         16.8         1         09/28/20 14:42         09/29/20 20:45         11097-69-1           PCB-1260 (Aroclor 1260)         <16.8	· · · · · · · · · · · · · · · · · · ·					1				
PCB-1254 (Aroclor 1254)       156       ug/kg       55.3       16.8       1       09/28/20 14:42       09/29/20 20:45       11097-69-1         PCB-1260 (Aroclor 1260)       <16.8	,	<16.8				1	09/28/20 14:42	09/29/20 20:45	12672-29-6	
PCB-1260 (Aroclor 1260)       <16.8       ug/kg       55.3       16.8       1       09/28/20 14:42       09/29/20 20:45       11096-82-5         PCB, Total       156       ug/kg       55.3       16.8       1       09/28/20 14:42       09/29/20 20:45       1336-36-3         Surrogates         Tetrachloro-m-xylene (S)       88       %       69-115       1       09/28/20 14:42       09/29/20 20:45       877-09-8         Decachlorobiphenyl (S)       88       %       62-104       1       09/28/20 14:42       09/29/20 20:45       2051-24-3         6020 MET ICPMS       Analytical Method: EPA 6020 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay         Arsenic       44.4       mg/kg       0.96       0.29       6.667       09/29/20 06:57       10/02/20 17:13       7440-38-2		156				1	09/28/20 14:42	09/29/20 20:45	11097-69-1	
PCB, Total       156       ug/kg       55.3       16.8       1       09/28/20 14:42       09/29/20 20:45       1336-36-3         Surrogates       Tetrachloro-m-xylene (S)       88       %       69-115       1       09/28/20 14:42       09/29/20 20:45       877-09-8         Decachlorobiphenyl (S)       88       %       62-104       1       09/28/20 14:42       09/29/20 20:45       2051-24-3         6020 MET ICPMS       Analytical Method: EPA 6020 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay         Arsenic       44.4       mg/kg       0.96       0.29       6.667       09/29/20 06:57       10/02/20 17:13       7440-38-2	· · · · · · · · · · · · · · · · · · ·	<16.8		55.3	16.8	1	09/28/20 14:42	09/29/20 20:45	11096-82-5	
Tetrachloro-m-xylene (S) 88 % 69-115 1 09/28/20 14:42 09/29/20 20:45 877-09-8 Decachlorobiphenyl (S) 88 % 62-104 1 09/28/20 14:42 09/29/20 20:45 2051-24-3  6020 MET ICPMS Analytical Method: EPA 6020 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay  Arsenic 44.4 mg/kg 0.96 0.29 6.667 09/29/20 06:57 10/02/20 17:13 7440-38-2		156		55.3	16.8	1	09/28/20 14:42	09/29/20 20:45	1336-36-3	
Tetrachloro-m-xylene (S) 88 % 69-115 1 09/28/20 14:42 09/29/20 20:45 877-09-8 Decachlorobiphenyl (S) 88 % 62-104 1 09/28/20 14:42 09/29/20 20:45 2051-24-3  6020 MET ICPMS Analytical Method: EPA 6020 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay  Arsenic 44.4 mg/kg 0.96 0.29 6.667 09/29/20 06:57 10/02/20 17:13 7440-38-2	Surrogates		0 0							
6020 MET ICPMS       Analytical Method: EPA 6020 Preparation Method: EPA 3050         Pace Analytical Services - Green Bay          Arsenic       44.4 mg/kg       0.96 0.29 6.667 09/29/20 06:57 10/02/20 17:13 7440-38-2		88	%	69-115		1	09/28/20 14:42	09/29/20 20:45	877-09-8	
Arsenic Pace Analytical Services - Green Bay  44.4 mg/kg 0.96 0.29 6.667 09/29/20 06:57 10/02/20 17:13 7440-38-2	Decachlorobiphenyl (S)	88	%	62-104		1	09/28/20 14:42	09/29/20 20:45	2051-24-3	
Arsenic 44.4 mg/kg 0.96 0.29 6.667 09/29/20 06:57 10/02/20 17:13 7440-38-2	6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepai	ation Meth	od: EPA	A 3050			
		Pace Anal	ytical Service	es - Green Ba	/					
Barium 182 mg/kg 0.95 0.29 6.667 09/29/20 06:57 10/02/20 17:13 7440-39-3	Arsenic	44.4	mg/kg	0.96	0.29	6.667	09/29/20 06:57	10/02/20 17:13	7440-38-2	
	Barium	182	mg/kg	0.95	0.29	6.667	09/29/20 06:57	10/02/20 17:13	7440-39-3	



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-13, 0.2-4.0' Lab ID: 40215420014 Collected: 09/24/20 12:25 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EPA	A 6020 Prepara	ation Meth	nod: EPA	A 3050			
	Pace Anal	ytical Service	es - Green Bay	•					
Cadmium	3.1	mg/kg	0.72	0.11	6.667	09/29/20 06:57	10/02/20 17:13	7440-43-9	
Chromium	14.8	mg/kg	2.2	0.66	6.667	09/29/20 06:57	10/02/20 17:13		
Copper	74.4	mg/kg	1.9	0.58	6.667	09/29/20 06:57	10/02/20 17:13		
Lead	269	mg/kg	0.72	0.20	6.667		10/02/20 17:13		
Selenium	0.76	mg/kg	0.72	0.20	6.667	09/29/20 06:57	10/02/20 17:13		
Silver	0.27J	mg/kg	0.36	0.10	6.667	09/29/20 06:57	10/02/20 17:13		D3
Zinc	803	mg/kg	25.2	7.6	6.667	09/29/20 06:57			
7471 Mercury	Analytical	Method: EPA	A 7471 Prepara	ation Meth	nod: EPA	A 7471			
	Pace Anal	ytical Service	es - Green Bay	,					
Mercury	0.44	mg/kg	0.036	0.010	1	10/07/20 09:07	10/08/20 10:30	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EPA	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Service	es - Green Bay	•					
Acenaphthene	12.4J	ug/kg	36.9	4.8	2	10/02/20 08:09	10/05/20 19:47	83-32-9	
Acenaphthylene	21.1J	ug/kg	36.9	4.7	2		10/05/20 19:47		
Anthracene	34.1J	ug/kg	36.9	4.6	2	10/02/20 08:09	10/05/20 19:47		
Benzo(a)anthracene	78.4	ug/kg	36.9	4.8	2	10/02/20 08:09	10/05/20 19:47		
Benzo(a)pyrene	96.9	ug/kg	36.9	4.2	2	10/02/20 08:09	10/05/20 19:47		
Benzo(b)fluoranthene	141	ug/kg	36.9	5.1	2	10/02/20 08:09	10/05/20 19:47		
Benzo(g,h,i)perylene	85.1	ug/kg	36.9	6.5	2		10/05/20 19:47		
Benzo(k)fluoranthene	49.3	ug/kg	36.9	4.7	2	10/02/20 08:09	10/05/20 19:47		
Chrysene	109	ug/kg	36.9	7.0	2	10/02/20 08:09	10/05/20 19:47		
Dibenz(a,h)anthracene	18.5J	ug/kg	36.9	5.1	2	10/02/20 08:09			
Fluoranthene	150	ug/kg	36.9	4.4	2	10/02/20 08:09	10/05/20 19:47		
Fluorene	27.0J	ug/kg	36.9	4.4	2		10/05/20 19:47		
Indeno(1,2,3-cd)pyrene	57.5	ug/kg	36.9	7.7	2	10/02/20 08:09	10/05/20 19:47		
1-Methylnaphthalene	266	ug/kg	36.9	5.4	2	10/02/20 08:09	10/05/20 19:47		
2-Methylnaphthalene	387	ug/kg	36.9	5.4	2	10/02/20 08:09	10/05/20 19:47		
Naphthalene	355	ug/kg	36.9	3.6	2	10/02/20 08:09	10/05/20 19:47		
Phenanthrene	199	ug/kg	36.9	4.2	2	10/02/20 08:09	10/05/20 19:47		
Pyrene	110	ug/kg	36.9	5.4	2	10/02/20 08:09	10/05/20 19:47		
Surrogates		3 3							
2-Fluorobiphenyl (S)	68	%	17-100		2	10/02/20 08:09	10/05/20 19:47	321-60-8	
Terphenyl-d14 (S)	69	%	17-98		2	10/02/20 08:09	10/05/20 19:47	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepara	ation Meth	nod: EPA	A 5035/5030B			
			es - Green Bay						
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1		10/05/20 12:48		W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00			W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1		10/05/20 12:48		W
		5 5		_					



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-13, 0.2-4.0' Lab ID: 40215420014 Collected: 09/24/20 12:25 Received: 09/25/20 15:12 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 Prepa	ration Meth	od: EPA	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	у					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/05/20 09:00	10/05/20 12:48	87-61-6	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/05/20 09:00	10/05/20 12:48	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/05/20 09:00	10/05/20 12:48	120-82-1	W
1,2,4-Trimethylbenzene	30.3J	ug/kg	66.4	27.7	1	10/05/20 09:00	10/05/20 12:48	95-63-6	
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/05/20 09:00	10/05/20 12:48	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/05/20 09:00	10/05/20 12:48	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/05/20 09:00	10/05/20 12:48		W
Chloroform	<47.5	ug/kg	250	47.5	1	10/05/20 09:00	10/05/20 12:48		W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/05/20 09:00	10/05/20 12:48	74-87-3	W
Dibromochloromethane	<229	ug/kg	763	229	1	10/05/20 09:00	10/05/20 12:48	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 12:48	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48		W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/05/20 09:00	10/05/20 12:48	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	1634-04-4	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	10/05/20 09:00	10/05/20 12:48	75-09-2	W
Naphthalene	57.4J	ug/kg	101	30.2	1		10/05/20 12:48		
Styrene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	10/05/20 09:00	10/05/20 12:48	127-18-4	W
Toluene	116	ug/kg	66.4	27.7	1		10/05/20 12:48		
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1		10/05/20 12:48		W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1		10/05/20 12:48		W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-13, 0.2-4.0' Lab ID: 40215420014 Collected: 09/24/20 12:25 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Ana	lytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/05/20 09:00	10/05/20 12:48	10061-01-5	W
m&p-Xylene	96.6J	ug/kg	133	55.3	1	10/05/20 09:00	10/05/20 12:48	179601-23-1	
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/05/20 09:00	10/05/20 12:48	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:48	103-65-1	W
o-Xylene	49.4J	ug/kg	66.4	27.7	1	10/05/20 09:00	10/05/20 12:48	95-47-6	
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 12:48	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 12:48	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 12:48	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/05/20 09:00	10/05/20 12:48	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/05/20 09:00	10/05/20 12:48	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	93	%	58-145		1	10/05/20 09:00	10/05/20 12:48	1868-53-7	
Toluene-d8 (S)	92	%	56-140		1	10/05/20 09:00	10/05/20 12:48	2037-26-5	
4-Bromofluorobenzene (S)	83	%	52-137		1	10/05/20 09:00	10/05/20 12:48	460-00-4	
Percent Moisture	Analytical	Method: AS	ΓM D2974-87						
	Pace Ana	lytical Service	es - Green Bay						
Percent Moisture	9.6	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-5, 0.2-4.0' Lab ID: 40215420015 Collected: 09/24/20 12:45 Received: 09/25/20 15:12 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
8081B GCS Pesticides	Analytical	Method: EP/	A 8081B Prepa	aration Me	thod: El	PA 3550			
	Pace Anal	ytical Servic	es - Minneapo	lis					
Aldrin	<5.6	ug/kg	18.7	5.6	10	10/01/20 15:08	10/02/20 16:59	309-00-2	
alpha-BHC	<2.4	ug/kg	8.0	2.4	10	10/01/20 15:08	10/02/20 16:59		
beta-BHC	<4.0	ug/kg	13.4	4.0	10	10/01/20 15:08	10/02/20 16:59		
delta-BHC	<3.1	ug/kg	10.2	3.1	10	10/01/20 15:08	10/02/20 16:59		
gamma-BHC (Lindane)	<2.2	ug/kg	7.4	2.2	10		10/02/20 16:59		
Chlordane (Technical)	<57.8	ug/kg	193	57.8	10	10/01/20 15:08	10/02/20 16:59		
alpha-Chlordane	<2.4	ug/kg	8.1	2.4	10	10/01/20 15:08	10/02/20 16:59		
gamma-Chlordane	<5.6	ug/kg ug/kg	18.8	5.6	10	10/01/20 15:08	10/02/20 16:59		
4,4'-DDD	<4.1	ug/kg ug/kg	13.5	4.1	10	10/01/20 15:08	10/02/20 16:59		
4,4'-DDE	<3.8	ug/kg ug/kg	12.7	3.8	10	10/01/20 15:08	10/02/20 16:59		
4,4'-DDT	<8.6	ug/kg ug/kg	28.5	8.6	10	10/01/20 15:08	10/02/20 16:59		
Dieldrin	<3.7	ug/kg ug/kg	12.2	3.7	10	10/01/20 15:08	10/02/20 16:59		
Endosulfan I	<3.7 <2.9		9.8	2.9	10	10/01/20 15:08	10/02/20 16:59		
Endosulfan II	<2.9 <5.8	ug/kg	9.6 19.4	5.8	10	10/01/20 15:08	10/02/20 16:59		
	<5.6 <7.0	ug/kg	23.4	7.0	10		10/02/20 16:59		
Endosulfan sulfate		ug/kg		4.0		10/01/20 15:08			
Endrin	<4.0	ug/kg	13.3		10	10/01/20 15:08	10/02/20 16:59		
Endrin aldehyde	<7.9	ug/kg	26.3	7.9	10	10/01/20 15:08	10/02/20 16:59		
Endrin ketone	<9.7	ug/kg	32.3	9.7	10	10/01/20 15:08	10/02/20 16:59		
Heptachlor	<3.9	ug/kg	13.1	3.9	10	10/01/20 15:08	10/02/20 16:59		
Heptachlor epoxide	<2.7	ug/kg	9.0	2.7	10	10/01/20 15:08	10/02/20 16:59		
Methoxychlor	<58.0	ug/kg	193	58.0	10	10/01/20 15:08	10/02/20 16:59		
Toxaphene	<155	ug/kg	517	155	10	10/01/20 15:08	10/02/20 16:59	8001-35-2	
Surrogates	440	0/	20.450		40	40/04/00 45:00	40/00/00 40:50	077 00 0	Do
Tetrachloro-m-xylene (S)	113	%.	30-150		10	10/01/20 15:08	10/02/20 16:59		D3
Decachlorobiphenyl (S)	135	%.	30-150		10	10/01/20 15:08	10/02/20 16:59	2051-24-3	
8082A GCS PCB			4 8082A Prepa		thod: El	PA 3541			
	Pace Anal	ytical Servic	es - Green Bay	y					
PCB-1016 (Aroclor 1016)	<16.1	ug/kg	52.8	16.1	1	09/28/20 14:42	09/29/20 18:34	12674-11-2	
PCB-1221 (Aroclor 1221)	<16.1	ug/kg ug/kg	52.8	16.1	1	09/28/20 14:42			
PCB-1232 (Aroclor 1232)	<16.1	ug/kg ug/kg	52.8	16.1	1	09/28/20 14:42			
PCB-1242 (Aroclor 1242)	<16.1	ug/kg ug/kg	52.8	16.1	1	09/28/20 14:42			
PCB-1248 (Aroclor 1248)	<16.1	ug/kg ug/kg	52.8	16.1	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254)	57.6	ug/kg ug/kg	52.8	16.1	1	09/28/20 14:42			
PCB-1254 (Aroclor 1254) PCB-1260 (Aroclor 1260)	<16.1	ug/kg ug/kg	52.8	16.1	1	09/28/20 14:42			
PCB, Total	57.6	ug/kg ug/kg	52.8	16.1	1	09/28/20 14:42			
Surrogates	37.0	ug/kg	32.0	10.1	'	09/20/20 14.42	09/29/20 10.34	1330-30-3	
Tetrachloro-m-xylene (S)	86	%	69-115		1	09/28/20 14:42	09/29/20 18:34	877-09-8	
Decachlorobiphenyl (S)	85	%	62-104		1		09/29/20 18:34		
				,					
6020 MET ICPMS			A 6020 Prepar es - Green Bay		nod: EP/	4 3050			
Arconic	2.2	•	0.88	•	6 667	00/20/20 06:57	10/02/20 17:22	7440 29 2	
Arsenic	2.2 12.1	mg/kg		0.26		09/29/20 06:57			
Barium	12.1	mg/kg	0.88	0.26	700.0	09/29/20 06:57	10/02/20 17:33	1440-39-3	



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-5, 0.2-4.0' Lab ID: 40215420015 Collected: 09/24/20 12:45 Received: 09/25/20 15:12 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
6020 MET ICPMS	Analytical	Method: EP	A 6020 Prepara	ation Meth	nod: EPA	A 3050			
	Pace Anal	ytical Servic	es - Green Bay	,					
Cadmium	0.10J	mg/kg	0.67	0.098	6.667	09/29/20 06:57	10/02/20 17:33	7440-43-9	D3
Chromium	11.7	mg/kg	2.0	0.61	6.667	09/29/20 06:57	10/02/20 17:33	7440-47-3	
Copper	13.1	mg/kg	1.8	0.54	6.667	09/29/20 06:57	10/02/20 17:33	7440-50-8	
Lead	18.0	mg/kg	0.67	0.18	6.667	09/29/20 06:57	10/02/20 17:33	7439-92-1	
Selenium	0.34J	mg/kg	0.67	0.18	6.667	09/29/20 06:57	10/02/20 17:33	7782-49-2	D3
Silver	< 0.096	mg/kg	0.33	0.096	6.667	09/29/20 06:57	10/02/20 17:33	7440-22-4	D3
Zinc	60.6	mg/kg	23.3	7.0	6.667	09/29/20 06:57	10/02/20 17:33	7440-66-6	
7471 Mercury	Analytical	Method: EP	A 7471 Prepara	ation Meth	nod: EPA	7471			
	Pace Anal	ytical Servic	es - Green Bay	,					
Mercury	0.015J	mg/kg	0.036	0.010	1	10/07/20 09:07	10/08/20 10:37	7439-97-6	
8270 MSSV PAH by SIM	Analytical	Method: EP	A 8270 by SIM	Preparati	on Meth	od: EPA 3546			
	Pace Anal	ytical Servic	es - Green Bay	,					
Acenaphthene	17.0J	ug/kg	35.3	4.6	2	10/02/20 08:09	10/05/20 18:38	83-32-9	
Acenaphthylene	39.8	ug/kg	35.3	4.5	2		10/05/20 18:38		
Anthracene	55.2	ug/kg	35.3	4.4	2	10/02/20 08:09	10/05/20 18:38		
Benzo(a)anthracene	110	ug/kg	35.3	4.6	2	10/02/20 08:09	10/05/20 18:38	56-55-3	
Benzo(a)pyrene	151	ug/kg	35.3	4.0	2	10/02/20 08:09	10/05/20 18:38		
Benzo(b)fluoranthene	193	ug/kg	35.3	4.9	2	10/02/20 08:09	10/05/20 18:38		
Benzo(g,h,i)perylene	124	ug/kg	35.3	6.2	2	10/02/20 08:09	10/05/20 18:38	191-24-2	
Benzo(k)fluoranthene	78.1	ug/kg	35.3	4.5	2	10/02/20 08:09	10/05/20 18:38	207-08-9	
Chrysene	142	ug/kg	35.3	6.7	2	10/02/20 08:09	10/05/20 18:38	218-01-9	
Dibenz(a,h)anthracene	30.8J	ug/kg	35.3	4.9	2	10/02/20 08:09	10/05/20 18:38	53-70-3	
Fluoranthene	212	ug/kg	35.3	4.2	2	10/02/20 08:09	10/05/20 18:38	206-44-0	
Fluorene	28.6J	ug/kg	35.3	4.2	2		10/05/20 18:38		
Indeno(1,2,3-cd)pyrene	94.5	ug/kg	35.3	7.4	2	10/02/20 08:09	10/05/20 18:38		
1-Methylnaphthalene	17.3J	ug/kg	35.3	5.2	2	10/02/20 08:09	10/05/20 18:38	90-12-0	
2-Methylnaphthalene	18.3J	ug/kg	35.3	5.2	2	10/02/20 08:09	10/05/20 18:38	91-57-6	
Naphthalene	46.5	ug/kg	35.3	3.4	2	10/02/20 08:09	10/05/20 18:38	91-20-3	
Phenanthrene	122	ug/kg	35.3	4.0	2	10/02/20 08:09	10/05/20 18:38	85-01-8	
Pyrene	174	ug/kg	35.3	5.2	2	10/02/20 08:09	10/05/20 18:38	129-00-0	
Surrogates		0 0							
2-Fluorobiphenyl (S)	51	%	17-100		2	10/02/20 08:09	10/05/20 18:38	321-60-8	
Terphenyl-d14 (S)	55	%	17-98		2	10/02/20 08:09	10/05/20 18:38	1718-51-0	
8260 MSV Med Level Normal List	Analytical	Method: EP	A 8260 Prepara	ation Meth	nod: EPA	A 5035/5030B			
	Pace Anal	ytical Servic	es - Green Bay	•					
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39		W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1		10/05/20 15:39	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00			W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39		W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1		10/05/20 15:39		W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-5, 0.2-4.0' Lab ID: 40215420015 Collected: 09/24/20 12:45 Received: 09/25/20 15:12 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 Prepa	ration Meth	od: EPA	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Ba	у					
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/05/20 09:00	10/05/20 15:39	87-61-6	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/05/20 09:00	10/05/20 15:39	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/05/20 09:00	10/05/20 15:39	120-82-1	W
1,2,4-Trimethylbenzene	45.0J	ug/kg	63.5	26.4	1	10/05/20 09:00	10/05/20 15:39	95-63-6	
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/05/20 09:00	10/05/20 15:39	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 15:39	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 15:39	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	71-43-2	W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 15:39	108-86-1	W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/05/20 09:00	10/05/20 15:39	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	75-27-4	W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:39	75-25-2	W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/05/20 09:00	10/05/20 15:39	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	108-90-7	W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/05/20 09:00	10/05/20 15:39	75-00-3	W
Chloroform	<47.5	ug/kg	250	47.5	1	10/05/20 09:00	10/05/20 15:39	67-66-3	W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	10/05/20 09:00	10/05/20 15:39	74-87-3	W
Dibromochloromethane	<229	ug/kg	763	229	1	10/05/20 09:00	10/05/20 15:39	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:39	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	10/05/20 09:00	10/05/20 15:39	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39		W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	1634-04-4	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	10/05/20 09:00	10/05/20 15:39	75-09-2	W
Naphthalene	67.2J	ug/kg	96.2	28.9	1	10/05/20 09:00	10/05/20 15:39		
Styrene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1		10/05/20 15:39		W
Toluene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/05/20 09:00			W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	75-01-4	W



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: GP-5, 0.2-4.0' Lab ID: 40215420015 Collected: 09/24/20 12:45 Received: 09/25/20 15:12 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	A 8260 Prepara	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/05/20 09:00	10/05/20 15:39	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/05/20 09:00	10/05/20 15:39	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/05/20 09:00	10/05/20 15:39	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 15:39	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:39	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 15:39	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 15:39	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/05/20 09:00	10/05/20 15:39	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/05/20 09:00	10/05/20 15:39	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	93	%	58-145		1	10/05/20 09:00	10/05/20 15:39	1868-53-7	
Toluene-d8 (S)	94	%	56-140		1	10/05/20 09:00	10/05/20 15:39	2037-26-5	
4-Bromofluorobenzene (S)	81	%	52-137		1	10/05/20 09:00	10/05/20 15:39	460-00-4	
Percent Moisture	Analytical	Method: AST	ΓM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	5.4	%	0.10	0.10	1		09/28/20 14:20		



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: MEOH BLANK Lab ID: 40215420016 Collected: 09/23/20 00:00 Received: 09/25/20 15:12 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EPA	N 8260 Prepai	ration Meth	od: EP/	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay	y					
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	79-34-5	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	79-00-5	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	75-34-3	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	10/05/20 09:00	10/05/20 12:14	87-61-6	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	10/05/20 09:00	10/05/20 12:14	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	10/05/20 09:00	10/05/20 12:14		W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	10/05/20 09:00	10/05/20 12:14		W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Benzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Bromoform	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Bromomethane	<63.8	ug/kg	250	63.8	1	10/05/20 09:00	10/05/20 12:14		W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Chloroethane	<46.4	ug/kg	250	46.4	1	10/05/20 09:00	10/05/20 12:14		W
Chloroform	<47.5	ug/kg	250	47.5	1	10/05/20 09:00	10/05/20 12:14		W
Chloromethane	<25.0	ug/kg ug/kg	80.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Dibromochloromethane	<229	ug/kg	763	229	1	10/05/20 09:00	10/05/20 12:14		W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Dichlorodifluoromethane	<25.0 <25.0	ug/kg ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Diisopropyl ether	<25.0	ug/kg ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Ethylbenzene	<25.0	ug/kg ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14		W
Hexachloro-1,3-butadiene	<68.7	ug/kg ug/kg	229	68.7	1	10/05/20 09:00	10/05/20 12:14		W
Isopropylbenzene (Cumene)	<06.7 <25.0	ug/kg ug/kg	60.0	25.0	1	10/05/20 09:00			W
Methyl-tert-butyl ether	<25.0 <25.0	ug/kg ug/kg	60.0	25.0 25.0	1	10/05/20 09:00	10/05/20 12:14		W
Methylene Chloride	<25.0 <26.3	ug/kg ug/kg	88.0	26.3	1	10/05/20 09:00	10/05/20 12:14		W
•	<20.3 <27.3		91.0	27.3	1		10/05/20 12:14		W
Naphthalene	<21.3	ug/kg	91.0	21.3	ı	10/03/20 09:00	10/05/20 12:14	31-20-3	VV



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Sample: MEOH BLANK Lab ID: 40215420016 Collected: 09/23/20 00:00 Received: 09/25/20 15:12 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepar	ation Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay	/					
Styrene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	10/05/20 09:00	10/05/20 12:14	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	10/05/20 09:00	10/05/20 12:14	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	10/05/20 09:00	10/05/20 12:14	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/05/20 09:00	10/05/20 12:14	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	10/05/20 09:00	10/05/20 12:14	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/05/20 09:00	10/05/20 12:14	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 12:14	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	10/05/20 09:00	10/05/20 12:14	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	10/05/20 09:00	10/05/20 12:14	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	10/05/20 09:00	10/05/20 12:14	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	10/05/20 09:00	10/05/20 12:14	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	95	%	58-145		1	10/05/20 09:00	10/05/20 12:14	1868-53-7	
Toluene-d8 (S)	96	%	56-140		1	10/05/20 09:00	10/05/20 12:14	2037-26-5	
4-Bromofluorobenzene (S)	85	%	52-137		1	10/05/20 09:00	10/05/20 12:14	460-00-4	

(920)469-2436



**QUALITY CONTROL DATA** 

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Mercury

Date: 10/12/2020 08:12 AM

QC Batch: 367571 Analysis Method: EPA 7471

QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215420001, 40215420002, 40215420003, 40215420004, 40215420005, 40215420006, 40215420007,

40215420008, 40215420009, 40215420010, 40215420011, 40215420012, 40215420013, 40215420014,

40215420015

METHOD BLANK: 2124444 Matrix: Solid

Associated Lab Samples: 40215420001, 40215420002, 40215420003, 40215420004, 40215420005, 40215420006, 40215420007,

40215420008, 40215420009, 40215420010, 40215420011, 40215420012, 40215420013, 40215420014,

40215420015

 Parameter
 Units
 Blank Reporting Result
 Limit
 Analyzed
 Qualifiers

 mg/kg
 <0.010</td>
 0.035
 10/08/20 09:41

LABORATORY CONTROL SAMPLE: 2124445

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Mercury 0.83 0.85 102 85-115 mg/kg

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2124446 2124447

MSD MS 40215277001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** RPD Qual Mercury 0.034J 0.88 0.86 94 85-115 0 20 mg/kg 0.88 0.85

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.

(920)469-2436



#### **QUALITY CONTROL DATA**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

QC Batch: 366768 Analysis Method: EPA 6020
QC Batch Method: EPA 3050 Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Green Bay

 $Associated \ Lab \ Samples: \quad 40215420001, \ 40215420002, \ 40215420003, \ 40215420004, \ 40215420005, \ 40215420006, \ 40215420007, \ 4021$ 

40215420008, 40215420009, 40215420010, 40215420011, 40215420012, 40215420013, 40215420014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 402154001

40215420015

METHOD BLANK: 2119990 Matrix: Solid

Associated Lab Samples: 40215420001, 40215420002, 40215420003, 40215420004, 40215420005, 40215420006, 40215420007,

40215420008, 40215420009, 40215420010, 40215420011, 40215420012, 40215420013, 40215420014,

40215420015

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<0.040	0.13	10/02/20 14:50	
Barium	mg/kg	< 0.039	0.13	10/02/20 14:50	
Cadmium	mg/kg	< 0.015	0.10	10/02/20 14:50	
Chromium	mg/kg	< 0.091	0.30	10/02/20 14:50	
Copper	mg/kg	<0.080	0.27	10/02/20 14:50	
Lead	mg/kg	< 0.027	0.10	10/02/20 14:50	
Selenium	mg/kg	< 0.027	0.10	10/02/20 14:50	
Silver	mg/kg	< 0.014	0.050	10/02/20 14:50	
Zinc	mg/kg	<1.0	3.5	10/02/20 14:50	

LABORATORY CONTROL SAMPLE:	2119991					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	mg/kg	50	51.9	104	80-120	
Barium	mg/kg	50	49.7	99	80-120	
Cadmium	mg/kg	50	52.4	105	80-120	
Chromium	mg/kg	50	48.9	98	80-120	
Copper	mg/kg	50	48.4	97	80-120	
Lead	mg/kg	50	46.5	93	80-120	
Selenium	mg/kg	50	51.5	103	80-120	
Silver	mg/kg	25	24.9	100	80-120	
Zinc	mg/kg	50	49.1	98	80-120	

MATRIX SPIKE & MATRIX	SPIKE DUPLI	ICATE: 2119		MCD	2119993							
		40215420001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec	555	Max	0 1
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	mg/kg	4.3	53.7	53.7	57.6	58.8	99	101	75-125	2	20	
Barium	mg/kg	25.4	53.7	53.7	87.8	84.6	116	110	75-125	4	20	
Cadmium	mg/kg	0.55J	53.7	53.7	54.9	55.4	101	102	75-125	1	20	
Chromium	mg/kg	10.4	53.7	53.7	63.6	63.5	99	99	75-125	0	20	
Copper	mg/kg	23.5	53.7	53.7	76.1	77.0	98	100	75-125	1	20	
Lead	mg/kg	18.2	53.7	53.7	75.9	75.2	107	106	75-125	1	20	
Selenium	mg/kg	0.79	53.7	53.7	54.5	55.0	100	101	75-125	1	20	

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



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## **QUALITY CONTROL DATA**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

MATRIX SPIKE & MATRIX	SPIKE DUPL	ICATE: 2119	992		2119993							
		40215420001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Silver	mg/kg	0.23J	26.9	26.9	26.2	26.4	97	97	75-125	1	20	
Zinc	mg/kg	62.5	53.7	53.7	126	126	118	119	75-125	0	20	

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



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

QC Batch: 367217 Analysis Method: EPA 8260

QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215420002, 40215420003, 40215420004, 40215420005, 40215420006, 40215420007, 40215420008,

40215420009, 40215420010, 40215420011

METHOD BLANK: 2122800 Matrix: Solid

Associated Lab Samples: 40215420002, 40215420003, 40215420004, 40215420005, 40215420006, 40215420007, 40215420008,

40215420009, 40215420010, 40215420011

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<7.8	50.0	10/05/20 18:01	
1,1,1-Trichloroethane	ug/kg	<13.5	50.0	10/05/20 18:01	
1,1,2,2-Tetrachloroethane	ug/kg	<15.7	52.0	10/05/20 18:01	
1,1,2-Trichloroethane	ug/kg	<15.7	52.0	10/05/20 18:01	
1,1-Dichloroethane	ug/kg	<13.5	50.0	10/05/20 18:01	
1,1-Dichloroethene	ug/kg	<11.8	50.0	10/05/20 18:01	
1,1-Dichloropropene	ug/kg	<10.7	50.0	10/05/20 18:01	
1,2,3-Trichlorobenzene	ug/kg	<47.3	158	10/05/20 18:01	
1,2,3-Trichloropropane	ug/kg	<37.4	125	10/05/20 18:01	
1,2,4-Trichlorobenzene	ug/kg	<41.7	250	10/05/20 18:01	
1,2,4-Trimethylbenzene	ug/kg	<18.1	60.0	10/05/20 18:01	
1,2-Dibromo-3-chloropropane	ug/kg	<237	789	10/05/20 18:01	
1,2-Dibromoethane (EDB)	ug/kg	<17.0	57.0	10/05/20 18:01	
1,2-Dichlorobenzene	ug/kg	<13.1	50.0	10/05/20 18:01	
1,2-Dichloroethane	ug/kg	<13.8	50.0	10/05/20 18:01	
1,2-Dichloropropane	ug/kg	<13.5	50.0	10/05/20 18:01	
1,3,5-Trimethylbenzene	ug/kg	<16.0	53.0	10/05/20 18:01	
1,3-Dichlorobenzene	ug/kg	<13.0	50.0	10/05/20 18:01	
1,3-Dichloropropane	ug/kg	<11.0	50.0	10/05/20 18:01	
1,4-Dichlorobenzene	ug/kg	<12.0	50.0	10/05/20 18:01	
2,2-Dichloropropane	ug/kg	<15.7	52.0	10/05/20 18:01	
2-Chlorotoluene	ug/kg	<19.3	64.0	10/05/20 18:01	
4-Chlorotoluene	ug/kg	<19.3	64.0	10/05/20 18:01	
Benzene	ug/kg	<12.5	42.0	10/05/20 18:01	
Bromobenzene	ug/kg	<18.5	62.0	10/05/20 18:01	
Bromochloromethane	ug/kg	<20.9	70.0	10/05/20 18:01	
Bromodichloromethane	ug/kg	<10.0	50.0	10/05/20 18:01	
Bromoform	ug/kg	<21.6	72.0	10/05/20 18:01	
Bromomethane	ug/kg	<63.8	250	10/05/20 18:01	
Carbon tetrachloride	ug/kg	<7.5	50.0	10/05/20 18:01	
Chlorobenzene	ug/kg	<16.8	56.0	10/05/20 18:01	
Chloroethane	ug/kg	<46.4	250	10/05/20 18:01	
Chloroform	ug/kg	<47.5	250	10/05/20 18:01	
Chloromethane	ug/kg	<24.0	80.0	10/05/20 18:01	
cis-1,2-Dichloroethene	ug/kg	<14.8	50.0	10/05/20 18:01	
cis-1,3-Dichloropropene	ug/kg	<42.3	141	10/05/20 18:01	
Dibromochloromethane	ug/kg	<229	763	10/05/20 18:01	
Dibromomethane	ug/kg	<17.7	59.0	10/05/20 18:01	
Dichlorodifluoromethane	ug/kg	<21.7	72.0	10/05/20 18:01	

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Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

METHOD BLANK: 2122800 Matrix: Solid

Associated Lab Samples: 40215420002, 40215420003, 40215420004, 40215420005, 40215420006, 40215420007, 40215420008,

40215420009, 40215420010, 40215420011

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/kg	<14.0	50.0	10/05/20 18:01	
Ethylbenzene	ug/kg	<14.5	50.0	10/05/20 18:01	
Hexachloro-1,3-butadiene	ug/kg	<68.7	229	10/05/20 18:01	
Isopropylbenzene (Cumene)	ug/kg	<17.7	59.0	10/05/20 18:01	
m&p-Xylene	ug/kg	<32.4	108	10/05/20 18:01	
Methyl-tert-butyl ether	ug/kg	<16.2	54.0	10/05/20 18:01	
Methylene Chloride	ug/kg	<26.3	88.0	10/05/20 18:01	
n-Butylbenzene	ug/kg	<30.0	100	10/05/20 18:01	
n-Propylbenzene	ug/kg	<17.8	59.0	10/05/20 18:01	
Naphthalene	ug/kg	<27.3	91.0	10/05/20 18:01	
o-Xylene	ug/kg	<18.1	60.0	10/05/20 18:01	
p-Isopropyltoluene	ug/kg	<21.7	72.0	10/05/20 18:01	
sec-Butylbenzene	ug/kg	<21.5	72.0	10/05/20 18:01	
Styrene	ug/kg	<12.3	50.0	10/05/20 18:01	
tert-Butylbenzene	ug/kg	<18.7	62.0	10/05/20 18:01	
Tetrachloroethene	ug/kg	<38.7	129	10/05/20 18:01	
Toluene	ug/kg	<13.1	50.0	10/05/20 18:01	
trans-1,2-Dichloroethene	ug/kg	<20.2	67.0	10/05/20 18:01	
trans-1,3-Dichloropropene	ug/kg	<22.2	74.0	10/05/20 18:01	
Trichloroethene	ug/kg	<12.8	50.0	10/05/20 18:01	
Trichlorofluoromethane	ug/kg	<19.6	65.0	10/05/20 18:01	
Vinyl chloride	ug/kg	<14.5	50.0	10/05/20 18:01	
4-Bromofluorobenzene (S)	%	83	52-137	10/05/20 18:01	
Dibromofluoromethane (S)	%	96	58-145	10/05/20 18:01	
Toluene-d8 (S)	%	98	56-140	10/05/20 18:01	

LABORATORY CONTROL SAMPLE:	2122801					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2180	87	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2460	98	70-130	
1,1,2-Trichloroethane	ug/kg	2500	2630	105	70-130	
1,1-Dichloroethane	ug/kg	2500	2450	98	69-143	
1,1-Dichloroethene	ug/kg	2500	2190	88	73-118	
1,2,4-Trichlorobenzene	ug/kg	2500	2070	83	60-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	1840	74	66-130	
1,2-Dibromoethane (EDB)	ug/kg	2500	2670	107	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2700	108	70-130	
1,2-Dichloroethane	ug/kg	2500	2300	92	70-130	
1,2-Dichloropropane	ug/kg	2500	2860	114	78-126	
1,3-Dichlorobenzene	ug/kg	2500	2690	107	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2650	106	70-130	
Benzene	ug/kg	2500	2330	93	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.



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

ABORATORY CONTROL SAMPLE:	2122801					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
omodichloromethane	ug/kg	2500	2390	96	70-130	
omoform	ug/kg	2500	2250	90	67-130	
omomethane	ug/kg	2500	1950	78	45-134	
bon tetrachloride	ug/kg	2500	2280	91	70-130	
robenzene	ug/kg	2500	2680	107	70-130	
roethane	ug/kg	2500	2850	114	58-143	
oroform	ug/kg	2500	2330	93	76-122	
oromethane	ug/kg	2500	2340	94	45-120	
1,2-Dichloroethene	ug/kg	2500	2340	94	69-130	
1,3-Dichloropropene	ug/kg	2500	2260	90	70-130	
romochloromethane	ug/kg	2500	2620	105	70-130	
lorodifluoromethane	ug/kg	2500	1410	56	26-99	
/lbenzene	ug/kg	2500	2480	99	80-120	
propylbenzene (Cumene)	ug/kg	2500	2550	102	70-130	
o-Xylene	ug/kg	5000	5380	108	70-130	
hyl-tert-butyl ether	ug/kg	2500	2020	81	70-130	
hylene Chloride	ug/kg	2500	2320	93	70-130	
vlene	ug/kg	2500	2660	106	70-130	
ene	ug/kg	2500	2780	111	70-130	
achloroethene	ug/kg	2500	2590	104	70-130	
ene	ug/kg	2500	2630	105	80-120	
s-1,2-Dichloroethene	ug/kg	2500	2290	92	70-130	
ns-1,3-Dichloropropene	ug/kg	2500	2210	89	70-130	
chloroethene	ug/kg	2500	2550	102	70-130	
hlorofluoromethane	ug/kg	2500	2340	94	70-128	
l chloride	ug/kg	2500	2340	94	53-110	
romofluorobenzene (S)	%			99	52-137	
omofluoromethane (S)	%			102	58-145	
uene-d8 (S)	%			104	56-140	

MATRIX SPIKE & MATRIX SP	PIKE DUPLIC	CATE: 2122	802		2122803							
Parameter	4 Units	0215420008 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	<25.0	1380	1380	1080	1120	78	82	66-130	4	20	
1,1,2,2-Tetrachloroethane	ug/kg	<25.0	1380	1380	1330	1360	96	99	70-133	3	20	
1,1,2-Trichloroethane	ug/kg	<25.0	1380	1380	1330	1380	97	100	70-130	4	20	
1,1-Dichloroethane	ug/kg	<25.0	1380	1380	1290	1310	94	96	69-143	2	20	
1,1-Dichloroethene	ug/kg	<25.0	1380	1380	1110	1090	81	79	58-120	2	20	
1,2,4-Trichlorobenzene	ug/kg	<41.7	1380	1380	1210	1200	88	87	60-130	0	20	
1,2-Dibromo-3- chloropropane	ug/kg	<237	1380	1380	914	898	66	65	59-136	2	20	
1,2-Dibromoethane (EDB)	ug/kg	<25.0	1380	1380	1360	1400	99	102	70-130	2	20	
1,2-Dichlorobenzene	ug/kg	<25.0	1380	1380	1390	1450	101	105	70-130	4	20	
1,2-Dichloroethane	ug/kg	<25.0	1380	1380	1210	1220	88	89	70-136	1	20	

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

## **REPORT OF LABORATORY ANALYSIS**

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Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

MATRIX SPIKE & MATRIX SF	PIKE DUPLI	ICATE: 2122	802		2122803							
Parameter	Units	40215420008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qua
1,2-Dichloropropane	ug/kg	<25.0	1380	1380	1440	1530	105	111	78-128	6	20	
1,3-Dichlorobenzene	ug/kg	<25.0	1380	1380	1380	1420	101	104	70-130	3	20	
1,4-Dichlorobenzene	ug/kg	<25.0	1380	1380	1380	1450	101	105	70-130	5	20	
Benzene	ug/kg	<25.0	1380	1380	1220	1240	89	90	70-130	1	20	
Bromodichloromethane	ug/kg	<25.0	1380	1380	1160	1220	85	89	70-130	5	20	
Bromoform	ug/kg	<25.0	1380	1380	1130	1170	82	85	63-130	3	20	
Bromomethane	ug/kg	<63.8	1380	1380	1090	1130	79	82	33-146	3	20	
Carbon tetrachloride	ug/kg	<25.0	1380	1380	1140	1140	83	83	65-130	0	20	
Chlorobenzene	ug/kg	<25.0	1380	1380	1380	1410	100	103	70-130	2	20	
Chloroethane	ug/kg	<46.4	1380	1380	1460	1440	106	104	46-156	2	20	
Chloroform	ug/kg	<47.5	1380	1380	1210	1240	88	90	75-130	3	20	
Chloromethane	ug/kg	<25.0	1380	1380	1140	1170	83	85	20-139	2	20	
cis-1,2-Dichloroethene	ug/kg	<25.0	1380	1380	1200	1250	87	91	69-130	5	20	
cis-1,3-Dichloropropene	ug/kg	<42.3	1380	1380	1090	1150	80	84	70-130	5	20	
Dibromochloromethane	ug/kg	<229	1380	1380	1280	1310	93	95	70-130	3	20	
Dichlorodifluoromethane	ug/kg	<25.0	1380	1380	687	710	50	52	10-99	3	22	
Ethylbenzene	ug/kg	<25.0	1380	1380	1240	1290	90	94	80-120	4	20	
sopropylbenzene Cumene)	ug/kg	<25.0	1380	1380	1290	1310	94	95	70-130	1	20	
n&p-Xylene	ug/kg	<50.0	2750	2750	2690	2770	97	100	70-130	3	20	
Methyl-tert-butyl ether	ug/kg	<25.0	1380	1380	1050	1080	76	78	70-130	2	20	
Methylene Chloride	ug/kg	<26.3	1380	1380	1160	1240	84	90	70-136	7	20	
o-Xylene	ug/kg	<25.0	1380	1380	1350	1380	97	99	70-130	2	20	
Styrene	ug/kg	<25.0	1380	1380	1330	1390	97	101	70-130	5	20	
Tetrachloroethene	ug/kg	<38.7	1380	1380	1320	1340	96	97	68-130	1	20	
Гoluene	ug/kg	<25.0	1380	1380	1350	1380	97	99	80-120	2	20	
rans-1,2-Dichloroethene	ug/kg	<25.0	1380	1380	1200	1200	88	87	70-130	0	20	
rans-1,3-Dichloropropene	ug/kg	<25.0	1380	1380	1070	1110	78	81	70-130	4	20	
Trichloroethene	ug/kg	<25.0	1380	1380	1320	1350	96	98	70-130	3	20	
Trichlorofluoromethane	ug/kg	<25.0	1380	1380	1170	1170	85	85	53-128	0	20	
/inyl chloride	ug/kg	<25.0	1380	1380	1150	1160	83	84	32-118	1	20	
I-Bromofluorobenzene (S)	%						91	80	52-137			
Dibromofluoromethane (S)	%						96	87	58-145			
Toluene-d8 (S)	%						99	87	56-140			

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Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

QC Batch: 367350 Analysis Method: EPA 8260

QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215420001, 40215420012, 40215420013, 40215420014, 40215420015, 40215420016

METHOD BLANK: 2123577 Matrix: Solid

Associated Lab Samples: 40215420001, 40215420012, 40215420013, 40215420014, 40215420015, 40215420016

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<7.8	50.0	10/05/20 10:10	
1,1,1-Trichloroethane	ug/kg	<13.5	50.0	10/05/20 10:10	
1,1,2,2-Tetrachloroethane	ug/kg	<15.7	52.0	10/05/20 10:10	
1,1,2-Trichloroethane	ug/kg	<15.7	52.0	10/05/20 10:10	
1,1-Dichloroethane	ug/kg	<13.5	50.0	10/05/20 10:10	
1,1-Dichloroethene	ug/kg	<11.8	50.0	10/05/20 10:10	
1,1-Dichloropropene	ug/kg	<10.7	50.0	10/05/20 10:10	
1,2,3-Trichlorobenzene	ug/kg	<47.3	158	10/05/20 10:10	
1,2,3-Trichloropropane	ug/kg	<37.4	125	10/05/20 10:10	
1,2,4-Trichlorobenzene	ug/kg	<41.7	250	10/05/20 10:10	
1,2,4-Trimethylbenzene	ug/kg	<18.1	60.0	10/05/20 10:10	
1,2-Dibromo-3-chloropropane	ug/kg	<237	789	10/05/20 10:10	
1,2-Dibromoethane (EDB)	ug/kg	<17.0	57.0	10/05/20 10:10	
1,2-Dichlorobenzene	ug/kg	<13.1	50.0	10/05/20 10:10	
1,2-Dichloroethane	ug/kg	<13.8	50.0	10/05/20 10:10	
1,2-Dichloropropane	ug/kg	<13.5	50.0	10/05/20 10:10	
1,3,5-Trimethylbenzene	ug/kg	<16.0	53.0	10/05/20 10:10	
1,3-Dichlorobenzene	ug/kg	<13.0	50.0	10/05/20 10:10	
1,3-Dichloropropane	ug/kg	<11.0	50.0	10/05/20 10:10	
1,4-Dichlorobenzene	ug/kg	<12.0	50.0	10/05/20 10:10	
2,2-Dichloropropane	ug/kg	<15.7	52.0	10/05/20 10:10	
2-Chlorotoluene	ug/kg	<19.3	64.0	10/05/20 10:10	
4-Chlorotoluene	ug/kg	<19.3	64.0	10/05/20 10:10	
Benzene	ug/kg	<12.5	42.0	10/05/20 10:10	
Bromobenzene	ug/kg	<18.5	62.0	10/05/20 10:10	
Bromochloromethane	ug/kg	<20.9	70.0	10/05/20 10:10	
Bromodichloromethane	ug/kg	<10.0	50.0	10/05/20 10:10	
Bromoform	ug/kg	<21.6	72.0	10/05/20 10:10	
Bromomethane	ug/kg	<63.8	250	10/05/20 10:10	
Carbon tetrachloride	ug/kg	<7.5	50.0	10/05/20 10:10	
Chlorobenzene	ug/kg	<16.8	56.0	10/05/20 10:10	
Chloroethane	ug/kg	<46.4	250	10/05/20 10:10	
Chloroform	ug/kg	<47.5	250	10/05/20 10:10	
Chloromethane	ug/kg	<24.0	80.0	10/05/20 10:10	
cis-1,2-Dichloroethene	ug/kg	<14.8	50.0	10/05/20 10:10	
cis-1,3-Dichloropropene	ug/kg	<42.3	141	10/05/20 10:10	
Dibromochloromethane	ug/kg	<229	763	10/05/20 10:10	
Dibromomethane	ug/kg	<17.7	59.0	10/05/20 10:10	
Dichlorodifluoromethane	ug/kg	<21.7	72.0	10/05/20 10:10	
Diisopropyl ether	ug/kg	<14.0	50.0	10/05/20 10:10	

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



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

METHOD BLANK: 2123577 Matrix: Solid

Associated Lab Samples: 40215420001, 40215420012, 40215420013, 40215420014, 40215420015, 40215420016

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Ethylbenzene	ug/kg	<14.5	50.0	10/05/20 10:10	
Hexachloro-1,3-butadiene	ug/kg	<68.7	229	10/05/20 10:10	
Isopropylbenzene (Cumene)	ug/kg	<17.7	59.0	10/05/20 10:10	
m&p-Xylene	ug/kg	<32.4	108	10/05/20 10:10	
Methyl-tert-butyl ether	ug/kg	<16.2	54.0	10/05/20 10:10	
Methylene Chloride	ug/kg	<26.3	88.0	10/05/20 10:10	
n-Butylbenzene	ug/kg	<30.0	100	10/05/20 10:10	
n-Propylbenzene	ug/kg	<17.8	59.0	10/05/20 10:10	
Naphthalene	ug/kg	<27.3	91.0	10/05/20 10:10	
o-Xylene	ug/kg	<18.1	60.0	10/05/20 10:10	
p-Isopropyltoluene	ug/kg	<21.7	72.0	10/05/20 10:10	
sec-Butylbenzene	ug/kg	<21.5	72.0	10/05/20 10:10	
Styrene	ug/kg	<12.3	50.0	10/05/20 10:10	
tert-Butylbenzene	ug/kg	<18.7	62.0	10/05/20 10:10	
Tetrachloroethene	ug/kg	<38.7	129	10/05/20 10:10	
Toluene	ug/kg	<13.1	50.0	10/05/20 10:10	
trans-1,2-Dichloroethene	ug/kg	<20.2	67.0	10/05/20 10:10	
trans-1,3-Dichloropropene	ug/kg	<22.2	74.0	10/05/20 10:10	
Trichloroethene	ug/kg	<12.8	50.0	10/05/20 10:10	
Trichlorofluoromethane	ug/kg	<19.6	65.0	10/05/20 10:10	
Vinyl chloride	ug/kg	<14.5	50.0	10/05/20 10:10	
4-Bromofluorobenzene (S)	%	79	52-137	10/05/20 10:10	
Dibromofluoromethane (S)	%	87	58-145	10/05/20 10:10	
Toluene-d8 (S)	%	93	56-140	10/05/20 10:10	

LABORATORY CONTROL SAMPLE:	2123578					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2040	82	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2270	91	70-130	
1,1,2-Trichloroethane	ug/kg	2500	2370	95	70-130	
1,1-Dichloroethane	ug/kg	2500	2250	90	69-143	
1,1-Dichloroethene	ug/kg	2500	2010	80	73-118	
1,2,4-Trichlorobenzene	ug/kg	2500	2050	82	60-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	1670	67	66-130	
1,2-Dibromoethane (EDB)	ug/kg	2500	2420	97	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2470	99	70-130	
1,2-Dichloroethane	ug/kg	2500	2120	85	70-130	
1,2-Dichloropropane	ug/kg	2500	2540	102	78-126	
1,3-Dichlorobenzene	ug/kg	2500	2440	98	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2430	97	70-130	
Benzene	ug/kg	2500	2130	85	70-130	
Bromodichloromethane	ug/kg	2500	2180	87	70-130	
Bromoform	ug/kg	2500	2060	83	67-130	

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Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

ABORATORY CONTROL SAMPLE:	2123578					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Bromomethane	ug/kg	2500	1820	73	45-134	
Carbon tetrachloride	ug/kg	2500	2100	84	70-130	
hlorobenzene	ug/kg	2500	2470	99	70-130	
loroethane	ug/kg	2500	2560	102	58-143	
nloroform	ug/kg	2500	2120	85	76-122	
lloromethane	ug/kg	2500	2050	82	45-120	
s-1,2-Dichloroethene	ug/kg	2500	2160	86	69-130	
s-1,3-Dichloropropene	ug/kg	2500	2120	85	70-130	
bromochloromethane	ug/kg	2500	2420	97	70-130	
chlorodifluoromethane	ug/kg	2500	1460	58	26-99	
ylbenzene	ug/kg	2500	2330	93	80-120	
propylbenzene (Cumene)	ug/kg	2500	2410	96	70-130	
&p-Xylene	ug/kg	5000	4970	99	70-130	
thyl-tert-butyl ether	ug/kg	2500	1830	73	70-130	
thylene Chloride	ug/kg	2500	2070	83	70-130	
ylene	ug/kg	2500	2420	97	70-130	
rene	ug/kg	2500	2500	100	70-130	
rachloroethene	ug/kg	2500	2460	99	70-130	
uene	ug/kg	2500	2390	95	80-120	
ns-1,2-Dichloroethene	ug/kg	2500	2070	83	70-130	
ns-1,3-Dichloropropene	ug/kg	2500	2030	81	70-130	
chloroethene	ug/kg	2500	2380	95	70-130	
chlorofluoromethane	ug/kg	2500	2180	87	70-128	
yl chloride	ug/kg	2500	2100	84	53-110	
Bromofluorobenzene (S)	%			86	52-137	
promofluoromethane (S)	%			90	58-145	
luene-d8 (S)	%			92	56-140	

MATRIX SPIKE & MATRIX SP	PIKE DUPL	ICATE: 2123	579 MS	MSD	2123580							
		40215420014	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,1,1-Trichloroethane	ug/kg	<25.0	1380	1380	1140	1210	83	87	66-130	6	20	
1,1,2,2-Tetrachloroethane	ug/kg	<25.0	1380	1380	1320	1380	96	100	70-133	4	20	
1,1,2-Trichloroethane	ug/kg	<25.0	1380	1380	1430	1440	103	104	70-130	1	20	
1,1-Dichloroethane	ug/kg	<25.0	1380	1380	1300	1350	94	98	69-143	4	20	
1,1-Dichloroethene	ug/kg	<25.0	1380	1380	1130	1200	82	87	58-120	6	20	
1,2,4-Trichlorobenzene	ug/kg	<41.7	1380	1380	1280	1270	93	92	60-130	1	20	
1,2-Dibromo-3- chloropropane	ug/kg	<237	1380	1380	971	989	70	72	59-136	2	20	
1,2-Dibromoethane (EDB)	ug/kg	<25.0	1380	1380	1450	1450	105	105	70-130	0	20	
1,2-Dichlorobenzene	ug/kg	<25.0	1380	1380	1410	1440	102	104	70-130	3	20	
1,2-Dichloroethane	ug/kg	<25.0	1380	1380	1200	1260	87	91	70-136	5	20	
1,2-Dichloropropane	ug/kg	<25.0	1380	1380	1480	1500	107	109	78-128	1	20	
1,3-Dichlorobenzene	ug/kg	<25.0	1380	1380	1490	1420	108	103	70-130	4	20	

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Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

MATRIX SPIKE & MATRIX SF	PIKE DUPLI	CATE: 2123	MS MS	MSD	2123580							
		40215420014	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
1,4-Dichlorobenzene	ug/kg	<25.0	1380	1380	1510	1450	109	105	70-130	4	20	
Benzene	ug/kg	<25.0	1380	1380	1270	1290	90	92	70-130	2	20	
Bromodichloromethane	ug/kg	<25.0	1380	1380	1260	1270	91	92	70-130	0	20	
Bromoform	ug/kg	<25.0	1380	1380	1230	1220	89	88	63-130	0	20	
Bromomethane	ug/kg	<63.8	1380	1380	1120	1140	81	83	33-146	2	20	
Carbon tetrachloride	ug/kg	<25.0	1380	1380	1170	1250	84	90	65-130	7	20	
Chlorobenzene	ug/kg	<25.0	1380	1380	1440	1440	104	104	70-130	0	20	
Chloroethane	ug/kg	<46.4	1380	1380	1430	1490	103	108	46-156	5	20	
Chloroform	ug/kg	<47.5	1380	1380	1240	1270	90	92	75-130	2	20	
Chloromethane	ug/kg	<25.0	1380	1380	1050	1110	76	81	20-139	6	20	
cis-1,2-Dichloroethene	ug/kg	<25.0	1380	1380	1240	1270	90	92	69-130	3	20	
cis-1,3-Dichloropropene	ug/kg	<42.3	1380	1380	1210	1210	88	87	70-130	0	20	
Dibromochloromethane	ug/kg	<229	1380	1380	1390	1380	101	100	70-130	1	20	
Dichlorodifluoromethane	ug/kg	<25.0	1380	1380	683	741	49	54	10-99	8	22	
Ethylbenzene	ug/kg	<25.0	1380	1380	1340	1360	95	96	80-120	1	20	
Isopropylbenzene (Cumene)	ug/kg	<25.0	1380	1380	1370	1360	99	99	70-130	0	20	
m&p-Xylene	ug/kg	96.6J	2770	2770	2920	2940	102	103	70-130	1	20	
Methyl-tert-butyl ether	ug/kg	<25.0	1380	1380	1070	1110	77	80	70-130	3	20	
Methylene Chloride	ug/kg	<26.3	1380	1380	1190	1220	86	88	70-136	3	20	
o-Xylene	ug/kg	49.4J	1380	1380	1430	1460	100	102	70-130	2	20	
Styrene	ug/kg	<25.0	1380	1380	1420	1420	103	103	70-130	0	20	
Tetrachloroethene	ug/kg	<38.7	1380	1380	1480	1420	107	102	68-130	4	20	
Toluene	ug/kg	116	1380	1380	1530	1510	102	101	80-120	1	20	
trans-1,2-Dichloroethene	ug/kg	<25.0	1380	1380	1210	1250	88	91	70-130	3	20	
trans-1,3-Dichloropropene	ug/kg	<25.0	1380	1380	1160	1210	84	88	70-130	4	20	
Trichloroethene	ug/kg	<25.0	1380	1380	1380	1390	100	100	70-130	1	20	
Trichlorofluoromethane	ug/kg	<25.0	1380	1380	1200	1280	86	93	53-128	7	20	
Vinyl chloride	ug/kg	<25.0	1380	1380	1100	1160	79	84	32-118	5	20	
4-Bromofluorobenzene (S)	%						86	86	52-137			
Dibromofluoromethane (S)	%						91	92	58-145			
Toluene-d8 (S)	%						96	93	56-140			

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Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

QC Batch: 701891 Analysis Method: EPA 8081B

QC Batch Method: EPA 3550 Analysis Description: 8081S GCS Pesticides

Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 40215420001, 40215420002, 40215420003, 40215420004, 40215420005, 40215420006, 40215420007,

40215420008, 40215420009, 40215420010, 40215420011, 40215420012, 40215420013, 40215420014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 402154001

40215420015

METHOD BLANK: 3749372 Matrix: Solid

Associated Lab Samples: 40215420001, 40215420002, 40215420003, 40215420004, 40215420005, 40215420006, 40215420007,

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40215420008, 40215420009, 40215420010, 40215420011, 40215420012, 40215420013, 40215420014,

Reporting

40215420015

Parameter	Units	Result	Limit	Analyzed	Qualifiers
4,4'-DDD	ug/kg	<0.39	1.3	10/02/20 13:36	
4,4'-DDE	ug/kg	< 0.36	1.2	10/02/20 13:36	
4,4'-DDT	ug/kg	<0.82	2.7	10/02/20 13:36	
Aldrin	ug/kg	< 0.54	1.8	10/02/20 13:36	
alpha-BHC	ug/kg	< 0.23	0.76	10/02/20 13:36	
alpha-Chlordane	ug/kg	< 0.23	0.77	10/02/20 13:36	
beta-BHC	ug/kg	<0.38	1.3	10/02/20 13:36	
Chlordane (Technical)	ug/kg	<5.5	18.3	10/02/20 13:36	
delta-BHC	ug/kg	< 0.29	0.97	10/02/20 13:36	
Dieldrin	ug/kg	< 0.35	1.2	10/02/20 13:36	
Endosulfan I	ug/kg	<0.28	0.93	10/02/20 13:36	
Endosulfan II	ug/kg	< 0.55	1.8	10/02/20 13:36	
Endosulfan sulfate	ug/kg	< 0.67	2.2	10/02/20 13:36	
Endrin	ug/kg	<0.38	1.3	10/02/20 13:36	
Endrin aldehyde	ug/kg	< 0.75	2.5	10/02/20 13:36	
Endrin ketone	ug/kg	< 0.92	3.1	10/02/20 13:36	
gamma-BHC (Lindane)	ug/kg	<0.21	0.71	10/02/20 13:36	
gamma-Chlordane	ug/kg	< 0.54	1.8	10/02/20 13:36	
Heptachlor	ug/kg	<0.38	1.3	10/02/20 13:36	
Heptachlor epoxide	ug/kg	<0.26	0.86	10/02/20 13:36	
Methoxychlor	ug/kg	<5.5	18.4	10/02/20 13:36	
Toxaphene	ug/kg	<14.8	49.3	10/02/20 13:36	
Decachlorobiphenyl (S)	%.	93	30-150	10/02/20 13:36	
Tetrachloro-m-xylene (S)	%.	95	30-150	10/02/20 13:36	

LABORATORY CONTROL SAMPLE	E & LCSD: 3749373		37	749782						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
4,4'-DDD	ug/kg	33.3	32.6	33.8	98	101	71-125	3	20	
4,4'-DDE	ug/kg	33.3	35.8	37.2	108	112	75-128	4	20	
4,4'-DDT	ug/kg	33.3	38.6	39.8	116	119	70-136	3	20	
Aldrin	ug/kg	16.7	15.4	16.1	93	96	66-132	4	20	
alpha-BHC	ug/kg	16.7	14.5	15.3	87	92	64-133	5	20	
alpha-Chlordane	ug/kg	16.7	16.4	17.0	98	102	70-126	4	20	
beta-BHC	ug/kg	16.7	15.3	16.0	92	96	75-125	4	20	

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Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

LABORATORY CONTROL SAMPL	E & LCSD: 3749373	3	37	49782						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
delta-BHC	ug/kg	16.7	8.7	9.0	52	54	30-143	3	20	
Dieldrin	ug/kg	33.3	30.8	31.9	92	96	75-127	4	20	
Endosulfan I	ug/kg	16.7	15.8	16.4	95	99	57-135	4	20	
Endosulfan II	ug/kg	33.3	32.4	33.6	97	101	68-131	4	20	
Endosulfan sulfate	ug/kg	33.3	29.5	30.5	89	91	65-132	3	20	
Endrin	ug/kg	33.3	33.9	35.1	102	105	74-132	3	20	
Endrin aldehyde	ug/kg	33.3	31.9	32.9	96	99	75-125	3	20	
Endrin ketone	ug/kg	33.3	32.1	33.3	96	100	69-133	4	20	
gamma-BHC (Lindane)	ug/kg	16.7	15.3	16.0	92	96	66-130	5	20	
gamma-Chlordane	ug/kg	16.7	16.3	16.8	98	101	66-128	3	20	
Heptachlor	ug/kg	16.7	15.8	16.2	95	97	70-128	2	20	
Heptachlor epoxide	ug/kg	16.7	15.6	16.2	94	97	67-130	3	20	
Methoxychlor	ug/kg	167	188	194	113	117	64-144	3	20	
Decachlorobiphenyl (S)	%.				98	101	30-150			
Tetrachloro-m-xylene (S)	%.				96	99	30-150			

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Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

QC Batch: 366724 Analysis Method: EPA 8082A
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215420001, 40215420002, 40215420004, 40215420005, 40215420006, 40215420007, 40215420008, 40215420010, 40215420011, 40215420012, 40215420013, 40215420014, 40215420015

METHOD BLANK: 2119870 Matrix: Solid

Associated Lab Samples: 40215420001, 40215420002, 40215420004, 40215420005, 40215420006, 40215420007, 40215420008,

 $40215420009,\,40215420010,\,40215420011,\,40215420012,\,40215420013,\,40215420014,\,40215420015,\,40215420014,\,40215420015,\,402$ 

_		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<15.2	50.0	09/29/20 12:00	
PCB-1221 (Aroclor 1221)	ug/kg	<15.2	50.0	09/29/20 12:00	
PCB-1232 (Aroclor 1232)	ug/kg	<15.2	50.0	09/29/20 12:00	
PCB-1242 (Aroclor 1242)	ug/kg	<15.2	50.0	09/29/20 12:00	
PCB-1248 (Aroclor 1248)	ug/kg	<15.2	50.0	09/29/20 12:00	
PCB-1254 (Aroclor 1254)	ug/kg	<15.2	50.0	09/29/20 12:00	
PCB-1260 (Aroclor 1260)	ug/kg	<15.2	50.0	09/29/20 12:00	
Decachlorobiphenyl (S)	%	98	62-104	09/29/20 12:00	
Tetrachloro-m-xylene (S)	%	93	69-115	09/29/20 12:00	

LABORATORY CONTROL SAMPLE:	2119871					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% 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	487	97	59-119	
Decachlorobiphenyl (S)	%			98	62-104	
Tetrachloro-m-xylene (S)	%			93	69-115	

MATRIX SPIKE & MATRIX SF	PIKE DUPLIC	CATE: 2119	872		2119873							
Parameter	4 Units	0215420007 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	<16.2			<16.2	<16.2					20	
PCB-1221 (Aroclor 1221)	ug/kg	<16.2			<16.2	<16.2					20	
PCB-1232 (Aroclor 1232)	ug/kg	<16.2			<16.2	<16.2					20	
PCB-1242 (Aroclor 1242)	ug/kg	<16.2			<16.2	<16.2					20	
PCB-1248 (Aroclor 1248)	ug/kg	<16.2			<16.2	<16.2					20	
PCB-1254 (Aroclor 1254)	ug/kg	22.7J			<16.2	<16.2					20	
PCB-1260 (Aroclor 1260)	ug/kg	<16.2	531	532	458	460	86	86	55-123	1	20	
Decachlorobiphenyl (S)	%						87	87	62-104			
Tetrachloro-m-xylene (S)	%						85	88	69-115			

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



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

QC Batch: 366951 Analysis Method: EPA 8082A
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215420003

METHOD BLANK: 2121139 Matrix: Solid

Associated Lab Samples: 40215420003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<15.2	50.0	10/01/20 19:21	
PCB-1221 (Aroclor 1221)	ug/kg	<15.2	50.0	10/01/20 19:21	
PCB-1232 (Aroclor 1232)	ug/kg	<15.2	50.0	10/01/20 19:21	
PCB-1242 (Aroclor 1242)	ug/kg	<15.2	50.0	10/01/20 19:21	
PCB-1248 (Aroclor 1248)	ug/kg	<15.2	50.0	10/01/20 19:21	
PCB-1254 (Aroclor 1254)	ug/kg	<15.2	50.0	10/01/20 19:21	
PCB-1260 (Aroclor 1260)	ug/kg	<15.2	50.0	10/01/20 19:21	
Decachlorobiphenyl (S)	%	93	62-104	10/01/20 19:21	
Tetrachloro-m-xylene (S)	%	88	69-115	10/01/20 19:21	

LABORATORY CONTROL SAMPLE:	2121140	<b>.</b>			o. 5	
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% 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	451	90	59-119	
Decachlorobiphenyl (S)	%			95	62-104	
Tetrachloro-m-xylene (S)	%			88	69-115	

MATRIX SPIKE & MATRIX SF	PIKE DUPLI	CATE: 2121	141		2121142							
Parameter	Units	40215534074 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			<16.8	<16.8					20	
PCB-1221 (Aroclor 1221)	ug/kg	ND			<16.8	<16.8					20	
PCB-1232 (Aroclor 1232)	ug/kg	ND			<16.8	<16.8					20	
PCB-1242 (Aroclor 1242)	ug/kg	ND			<16.8	<16.8					20	
PCB-1248 (Aroclor 1248)	ug/kg	ND			<16.8	<16.8					20	
PCB-1254 (Aroclor 1254)	ug/kg	ND			<16.8	<16.8					20	
PCB-1260 (Aroclor 1260)	ug/kg	ND	553	551	436	458	79	83	55-123	5	20	
Decachlorobiphenyl (S)	%						85	88	62-104			
Tetrachloro-m-xylene (S)	%						82	85	69-115			

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



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

QC Batch: 367157 Analysis Method: EPA 8270 by SIM

QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215420001, 40215420002, 40215420003, 40215420004, 40215420005, 40215420006, 40215420007,

40215420008, 40215420009, 40215420010, 40215420011, 40215420012, 40215420013, 40215420014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 4021540014, 402154001

40215420015

METHOD BLANK: 2122349 Matrix: Solid

Associated Lab Samples: 40215420001, 40215420002, 40215420003, 40215420004, 40215420005, 40215420006, 40215420007,

40215420008, 40215420009, 40215420010, 40215420011, 40215420012, 40215420013, 40215420014,

40215420015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
-		<2.4	16.7	10/02/20 11:07	
1-Methylnaphthalene	ug/kg		_		
2-Methylnaphthalene	ug/kg	<2.4	16.7	10/02/20 11:07	
Acenaphthene	ug/kg	<2.2	16.7	10/02/20 11:07	
Acenaphthylene	ug/kg	<2.1	16.7	10/02/20 11:07	
Anthracene	ug/kg	<2.1	16.7	10/02/20 11:07	
Benzo(a)anthracene	ug/kg	<2.2	16.7	10/02/20 11:07	
Benzo(a)pyrene	ug/kg	<1.9	16.7	10/02/20 11:07	
Benzo(b)fluoranthene	ug/kg	<2.3	16.7	10/02/20 11:07	
Benzo(g,h,i)perylene	ug/kg	<2.9	16.7	10/02/20 11:07	
Benzo(k)fluoranthene	ug/kg	<2.1	16.7	10/02/20 11:07	
Chrysene	ug/kg	<3.1	16.7	10/02/20 11:07	
Dibenz(a,h)anthracene	ug/kg	<2.3	16.7	10/02/20 11:07	
Fluoranthene	ug/kg	<2.0	16.7	10/02/20 11:07	
Fluorene	ug/kg	<2.0	16.7	10/02/20 11:07	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.5	16.7	10/02/20 11:07	
Naphthalene	ug/kg	<1.6	16.7	10/02/20 11:07	
Phenanthrene	ug/kg	<1.9	16.7	10/02/20 11:07	
Pyrene	ug/kg	<2.5	16.7	10/02/20 11:07	
2-Fluorobiphenyl (S)	%	77	17-100	10/02/20 11:07	
Terphenyl-d14 (S)	%	96	17-98	10/02/20 11:07	

LABORATORY CONTROL SAMPLE:	2122350					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1-Methylnaphthalene	ug/kg	334	264	79	58-101	
2-Methylnaphthalene	ug/kg	334	262	78	59-101	
Acenaphthene	ug/kg	334	262	79	62-97	
Acenaphthylene	ug/kg	334	264	79	67-102	
Anthracene	ug/kg	334	286	86	69-120	
Benzo(a)anthracene	ug/kg	334	251	75	59-101	
Benzo(a)pyrene	ug/kg	334	326	98	70-110	
Benzo(b)fluoranthene	ug/kg	334	304	91	66-111	
Benzo(g,h,i)perylene	ug/kg	334	302	90	64-106	
Benzo(k)fluoranthene	ug/kg	334	313	94	65-108	
Chrysene	ug/kg	334	276	83	61-102	

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



Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

LABORATORY CONTROL SAMPLE:	2122350					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Dibenz(a,h)anthracene	ug/kg	334	308	92	64-120	
uoranthene	ug/kg	334	284	85	69-120	
uorene	ug/kg	334	280	84	70-99	
deno(1,2,3-cd)pyrene	ug/kg	334	309	93	66-120	
phthalene	ug/kg	334	250	75	60-95	
enanthrene	ug/kg	334	269	81	66-98	
ene	ug/kg	334	266	80	63-120	
Fluorobiphenyl (S)	%			74	17-100	
rphenyl-d14 (S)	%			86	17-98	

MATRIX SPIKE & MATRIX SP	IKE DUPLIC	CATE: 2122	351		2122352							
			MS	MSD								
	4	0215403015	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1-Methylnaphthalene	ug/kg	<2.5	347	348	241	236	69	67	48-101	2	25	
2-Methylnaphthalene	ug/kg	3.8J	347	348	241	237	68	67	46-101	2	21	
Acenaphthene	ug/kg	9.3J	347	348	229	223	63	62	52-97	3	20	
Acenaphthylene	ug/kg	<2.2	347	348	221	223	63	64	51-102	1	20	
Anthracene	ug/kg	15.9J	347	348	243	232	65	62	54-120	4	20	
Benzo(a)anthracene	ug/kg	48.4	347	348	240	225	55	51	34-101	6	22	
Benzo(a)pyrene	ug/kg	60.1	347	348	306	276	71	62	46-110	10	25	
Benzo(b)fluoranthene	ug/kg	80.8	347	348	344	283	76	58	40-111	19	23	
Benzo(g,h,i)perylene	ug/kg	55.2	347	348	235	225	52	49	40-120	4	24	
Benzo(k)fluoranthene	ug/kg	34.9	347	348	272	287	68	73	47-108	5	24	
Chrysene	ug/kg	56.6	347	348	264	230	60	50	35-115	14	20	
Dibenz(a,h)anthracene	ug/kg	10.1J	347	348	237	236	65	65	46-120	0	21	
Fluoranthene	ug/kg	126	347	348	332	267	60	41	52-120	22	23	M1
Fluorene	ug/kg	7.6J	347	348	241	239	67	67	54-99	1	20	
Indeno(1,2,3-cd)pyrene	ug/kg	32.4	347	348	242	237	61	59	46-120	2	22	
Naphthalene	ug/kg	2.2J	347	348	222	221	63	63	46-95	0	23	
Phenanthrene	ug/kg	76.0	347	348	283	238	60	47	51-98	17	20	M1
Pyrene	ug/kg	82.3	347	348	255	215	50	38	46-120	17	24	M1
2-Fluorobiphenyl (S)	%						62	61	17-100			
Terphenyl-d14 (S)	%						66	66	17-98			

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.

(920)469-2436



**QUALITY CONTROL DATA** 

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

QC Batch: 366719 Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215420001, 40215420002

SAMPLE DUPLICATE: 2119853

Date: 10/12/2020 08:12 AM

		40215367007	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Percent Moisture	%	5.5	5.1	9	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.

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#### **QUALITY CONTROL DATA**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

QC Batch: 366720 Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture

> Pace Analytical Services - Green Bay Laboratory:

40215420003, 40215420004, 40215420005, 40215420006, 40215420007, 40215420008, 40215420009, Associated Lab Samples:

40215420010, 40215420011, 40215420012, 40215420013, 40215420014, 40215420015

SAMPLE DUPLICATE: 2119865

Date: 10/12/2020 08:12 AM

		40215424001	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Percent Moisture	%	4.6	4.7	2	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.



#### **QUALIFIERS**

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

#### **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.

#### **BATCH QUALIFIERS**

Batch: 702177

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

#### **ANALYTE QUALIFIERS**

Date: 10/12/2020 08:12 AM

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

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

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

W Non-detect results are reported on a wet weight basis.

The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the

associated samples may have a high bias.



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

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

40215420001 40215420002	<del>_</del>			Analytical Method	Batch
40215420002	GP-1, 0.2-5.5'	EPA 3550	701891	EPA 8081B	702177
	GP-4, 0.0-4.0'	EPA 3550	701891	EPA 8081B	702177
0215420003	GP-6, 0.2-5.0'	EPA 3550	701891	EPA 8081B	702177
0215420004	GP-10, 0.3-4.0'	EPA 3550	701891	EPA 8081B	702177
0215420005	GP-11, 0.3-4.5'	EPA 3550	701891	EPA 8081B	702177
0215420006	GP-3, 0.1-4.0'	EPA 3550	701891	EPA 8081B	702177
0215420007	GP-2, 0.2-4.5' UPPER	EPA 3550	701891	EPA 8081B	702177
0215420008	GP-2, 0.2-4.5' LOWER	EPA 3550	701891	EPA 8081B	702177
0215420009	GP-8, 0.3-6.5'	EPA 3550	701891	EPA 8081B	702177
0215420010	GP-7, 0.3-5.0'	EPA 3550	701891	EPA 8081B	702177
0215420011	GP-9, 0.2-4.0'	EPA 3550	701891	EPA 8081B	702177
0215420012	GP-12, 0.2-5.0'	EPA 3550	701891	EPA 8081B	702177
0215420013	GP-12, 5.0-7.5'	EPA 3550	701891	EPA 8081B	702177
0215420014	GP-13, 0.2-4.0'	EPA 3550	701891	EPA 8081B	702177
0215420015	GP-5, 0.2-4.0'	EPA 3550	701891	EPA 8081B	702177
0215420001	GP-1, 0.2-5.5'	EPA 3541	366724	EPA 8082A	366738
0215420002	GP-4, 0.0-4.0'	EPA 3541	366724	EPA 8082A	366738
0215420003	GP-6, 0.2-5.0'	EPA 3541	366951	EPA 8082A	367041
0215420004	GP-10, 0.3-4.0'	EPA 3541	366724	EPA 8082A	366738
0215420005	GP-11, 0.3-4.5'	EPA 3541	366724	EPA 8082A	366738
0215420006	GP-3, 0.1-4.0'	EPA 3541	366724	EPA 8082A	366738
215420007	GP-2, 0.2-4.5' UPPER	EPA 3541	366724	EPA 8082A	366738
0215420008	GP-2, 0.2-4.5' LOWER	EPA 3541	366724	EPA 8082A	366738
0215420009	GP-8, 0.3-6.5'	EPA 3541	366724	EPA 8082A	366738
0215420010	GP-7, 0.3-5.0'	EPA 3541	366724	EPA 8082A	366738
0215420011	GP-9, 0.2-4.0'	EPA 3541	366724	EPA 8082A	366738
0215420012	GP-12, 0.2-5.0'	EPA 3541	366724	EPA 8082A	366738
0215420013	GP-12, 5.0-7.5'	EPA 3541	366724	EPA 8082A	366738
0215420014	GP-13, 0.2-4.0'	EPA 3541	366724	EPA 8082A	366738
0215420015	GP-5, 0.2-4.0'	EPA 3541	366724	EPA 8082A	366738
0215420001	GP-1, 0.2-5.5'	EPA 3050	366768	EPA 6020	366844
0215420002	GP-4, 0.0-4.0'	EPA 3050	366768	EPA 6020	366844
0215420003	GP-6, 0.2-5.0'	EPA 3050	366768	EPA 6020	366844
0215420004	GP-10, 0.3-4.0'	EPA 3050	366768	EPA 6020	366844
0215420005	GP-11, 0.3-4.5'	EPA 3050	366768	EPA 6020	366844
0215420006	GP-3, 0.1-4.0'	EPA 3050	366768	EPA 6020	366844
0215420007	GP-2, 0.2-4.5' UPPER	EPA 3050	366768	EPA 6020	366844
0215420008	GP-2, 0.2-4.5' LOWER	EPA 3050	366768	EPA 6020	366844
0215420009	GP-8, 0.3-6.5'	EPA 3050	366768	EPA 6020	366844
215420010	GP-7, 0.3-5.0'	EPA 3050	366768	EPA 6020	366844
0215420011	GP-9, 0.2-4.0'	EPA 3050	366768	EPA 6020	366844
0215420012	GP-12, 0.2-5.0'	EPA 3050	366768	EPA 6020	366844
0215420013	GP-12, 5.0-7.5'	EPA 3050	366768	EPA 6020	366844
0215420014	GP-13, 0.2-4.0'	EPA 3050	366768	EPA 6020	366844
	GP-5, 0.2-4.0'	EPA 3050	366768	EPA 6020	366844
0215420015					

## **REPORT OF LABORATORY ANALYSIS**

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

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
10215420002	GP-4, 0.0-4.0'	EPA 7471	367571	EPA 7471	367616
0215420003	GP-6, 0.2-5.0'	EPA 7471	367571	EPA 7471	367616
0215420004	GP-10, 0.3-4.0'	EPA 7471	367571	EPA 7471	367616
0215420005	GP-11, 0.3-4.5'	EPA 7471	367571	EPA 7471	367616
0215420006	GP-3, 0.1-4.0'	EPA 7471	367571	EPA 7471	367616
0215420007	GP-2, 0.2-4.5' UPPER	EPA 7471	367571	EPA 7471	367616
0215420008	GP-2, 0.2-4.5' LOWER	EPA 7471	367571	EPA 7471	367616
0215420009	GP-8, 0.3-6.5'	EPA 7471	367571	EPA 7471	367616
215420010	GP-7, 0.3-5.0'	EPA 7471	367571	EPA 7471	367616
215420011	GP-9, 0.2-4.0'	EPA 7471	367571	EPA 7471	367616
215420012	GP-12, 0.2-5.0'	EPA 7471	367571	EPA 7471	367616
215420013	GP-12, 5.0-7.5'	EPA 7471	367571	EPA 7471	367616
215420014	GP-13, 0.2-4.0'	EPA 7471	367571	EPA 7471	367616
215420015	GP-5, 0.2-4.0'	EPA 7471	367571	EPA 7471	367616
215420001	GP-1, 0.2-5.5'	EPA 3546	367157	EPA 8270 by SIM	367194
215420002	GP-4, 0.0-4.0'	EPA 3546	367157	EPA 8270 by SIM	367194
0215420003	GP-6, 0.2-5.0'	EPA 3546	367157	EPA 8270 by SIM	367194
0215420004	GP-10, 0.3-4.0'	EPA 3546	367157	EPA 8270 by SIM	367194
0215420005	GP-11, 0.3-4.5'	EPA 3546	367157	EPA 8270 by SIM	367194
215420006	GP-3, 0.1-4.0'	EPA 3546	367157	EPA 8270 by SIM	367194
215420007	GP-2, 0.2-4.5' UPPER	EPA 3546	367157	EPA 8270 by SIM	367194
215420008	GP-2, 0.2-4.5' LOWER	EPA 3546	367157	EPA 8270 by SIM	367194
215420009	GP-8, 0.3-6.5'	EPA 3546	367157	EPA 8270 by SIM	367194
215420010	GP-7, 0.3-5.0'	EPA 3546	367157	EPA 8270 by SIM	367194
215420011	GP-9, 0.2-4.0'	EPA 3546	367157	EPA 8270 by SIM	367194
215420012	GP-12, 0.2-5.0'	EPA 3546	367157	EPA 8270 by SIM	367194
215420013	GP-12, 5.0-7.5'	EPA 3546	367157	EPA 8270 by SIM	367194
215420014	GP-13, 0.2-4.0'	EPA 3546	367157	EPA 8270 by SIM	367194
215420015	GP-5, 0.2-4.0'	EPA 3546	367157	EPA 8270 by SIM	367194
0215420001	GP-1, 0.2-5.5'	EPA 5035/5030B	367350	EPA 8260	367352
215420002	GP-4, 0.0-4.0'	EPA 5035/5030B	367217	EPA 8260	367218
215420003	GP-6, 0.2-5.0'	EPA 5035/5030B	367217	EPA 8260	367218
215420004	GP-10, 0.3-4.0'	EPA 5035/5030B	367217	EPA 8260	367218
215420005	GP-11, 0.3-4.5'	EPA 5035/5030B	367217	EPA 8260	367218
0215420006	GP-3, 0.1-4.0'	EPA 5035/5030B	367217	EPA 8260	367218
0215420007	GP-2, 0.2-4.5' UPPER	EPA 5035/5030B	367217	EPA 8260	367218
215420008	GP-2, 0.2-4.5' LOWER	EPA 5035/5030B	367217	EPA 8260	367218
0215420009	GP-8, 0.3-6.5'	EPA 5035/5030B	367217	EPA 8260	367218
215420010	GP-7, 0.3-5.0'	EPA 5035/5030B	367217	EPA 8260	367218
215420011	GP-9, 0.2-4.0'	EPA 5035/5030B	367217	EPA 8260	367218
215420012	GP-12, 0.2-5.0'	EPA 5035/5030B	367350	EPA 8260	367352
0215420013	GP-12, 5.0-7.5'	EPA 5035/5030B	367350	EPA 8260	367352
0215420014	GP-13, 0.2-4.0'	EPA 5035/5030B	367350	EPA 8260	367352
0215420015	GP-5, 0.2-4.0'	EPA 5035/5030B	367350	EPA 8260	367352
0215420016	MEOH BLANK	EPA 5035/5030B	367350	EPA 8260	367352
0215420001	GP-1, 0.2-5.5'	ASTM D2974-87	366719		

## **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



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

Project: 19M106.20 FMM B34/B35 SUPPLMEN

Pace Project No.: 40215420

Date: 10/12/2020 08:12 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40215420002	GP-4, 0.0-4.0'	ASTM D2974-87	366719		
40215420003	GP-6, 0.2-5.0'	ASTM D2974-87	366720		
40215420004	GP-10, 0.3-4.0'	ASTM D2974-87	366720		
40215420005	GP-11, 0.3-4.5'	ASTM D2974-87	366720		
40215420006	GP-3, 0.1-4.0'	ASTM D2974-87	366720		
40215420007	GP-2, 0.2-4.5' UPPER	ASTM D2974-87	366720		
40215420008	GP-2, 0.2-4.5' LOWER	ASTM D2974-87	366720		
40215420009	GP-8, 0.3-6.5'	ASTM D2974-87	366720		
40215420010	GP-7, 0.3-5.0'	ASTM D2974-87	366720		
40215420011	GP-9, 0.2-4.0'	ASTM D2974-87	366720		
40215420012	GP-12, 0.2-5.0'	ASTM D2974-87	366720		
40215420013	GP-12, 5.0-7.5'	ASTM D2974-87	366720		
40215420014	GP-13, 0.2-4.0'	ASTM D2974-87	366720		
40215420015	GP-5, 0.2-4.0'	ASTM D2974-87	366720		



## CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All referent fields must be completed and accurate.

th Name: Pace Analytical Services, Inc.	Project Information: Site ID #:	ENH Darmar a			Other Information															
1241 Believue Street, Ste. 9, Green Bay, WI 54302	Project #:	FMM B34/B35 Supple	emental Yan	d Inv.	Send invoice to:	invoices@fo	th.com													
300, 316, 6, Green Bay, W1 54302		19M106.20			Address: 2	121 Innovation Ct.	1 11		Task:		Cod!									<u> </u>
PM: Tod Noitemeyer	Sile Address:	Fincantieri Marinette M 1600 Elv Street	i arine		City/State: D	e Pere WI 54115		Phone #: 920-496-6687		- Statistical Control of the Control										
Tod Woldineya	City-State-Zip:	Marinette, WI 54143	7 tal.		Foth Project No.:	19M106	.20						Standa	4 1 1/2		1 25				
000.202.3300	Sile PM Name:	Denis Roznowski		· · ·					QC lev	el Requ	red: St	andard	Level II i	Report	ing .			1.00		
PM email: Tod, Notterneyer@pecelebs.com    Company   Notterneyer@pecelebs.com   Notterneyer@pecelebs.c	Phone/Fac:	(920) 496-6756			Send EDD to: CC Hard copy rep	Steve Lehrke ort to:	Øfoth.com		<b>-   ₹</b>	₹	ģ	2	ę	ŧ	2	8		2	П	
	Sampler Name: Ric	k Panosh, Bob Meller			CC Electronic repreport and data in apreedsheet forma	orts (hab steve lehi	nowski@fot sh@foth.co rke@foth.co	12	Preservative	Soll/Sediment = Me	Soll/Sediment = No	Soll/Sediment = N	Soll/Sediment = No	Soll/Sediment = Non	Soll/Sediment = No	Soli/Sediment = Non	Soll/Sediment	L I		
Samples IDs MUST BE UNIQUE		SAMPLE LOCATION	MATRIX CODE	G#GRAB C#COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	Comments/Lab Sample I.D.	Analysis VOC (EPA 8260)	PVOC (EPA 8280) 8			6020 &	Metals - 6020)	•• EPA	Percent Moisture S	HOLD FOR			
GP-1, 0.2 - 5.5*		GP-1	Soil	С	9/23/20	1310	3		l x		x	х								00
GP-4, 0.0 - 4.0°		GP-4	Soil	С	9/23/20	1515	3					^	X	X	X	X	-	$\vdash$	$\vdash$	-
GP-6, 0.2 - 5.0					8123120	1515	1 3		I ×		X	X	X	X	×	X		1		$\alpha$
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GP-11, 0.3 - 4.5'		GP-11	Soil	С	0/00/00						$\uparrow$	<del>- ^  </del>	<del>^</del>	X	X	×	$\dashv$	+		- 02
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37-2, 0.11-4.0	<del></del>	GP-3	Soll	С	9/24/20	0836	3		l x		x	x	x	x	x	x		$\Gamma$		
GP-2, 0.2 - 4.5' Upper		GP-2	Soil	c	9/24/20	40.40					$\uparrow$	~†	î †		<u>^</u> +	<del>`</del>	-	$\vdash$	+	06
GP-2, 0.2 - 4.5' Lower			00:::	Ť	8124120	1040	3		X		х	X	x	X	x :	x _				00
5) 2, 0,2 - 4,3 LUWG		GP-2	Soli	С	9/24/20	1040	3		x		x	х	x	x	x ,	,				
GP-8, 0.3 - 6.5'		GP-8	Soli	С	9/24/20	4000						^+	^+		<del>^</del>	`+-	+	$\vdash$	$\dashv$	00
GP-7, 0.3 - 5.0°				<b> </b>	8144120	1 1055	3		X		X	X	Х	X	x )		3 - 4			00
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# CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

	Pace Analytical Services, Inc.	Site ID #:	FMM B34/B35 Supple	emental Ya	Inv.	Other information: Send invoice to:														
kees:	1241 Bellevue Street, Ste. 9, Green Bay, WI 54302	Project #:	19M106.20	Neme.	J inv.		invoices@foth.					4.()1	-	41.50		1,511	1.			
		Sille Address:					121 Innovation Ct.			Task:	, <u> </u>	Sedir	ment/Soil	Chemistry S	- Sampli				- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- 1 - 1 - 1 - 1
b PM:	Tod Notterneyer	City-State-Zip:	Fincantieri Marinette Ma 1600 Ely Street				Pere WI 54115		Phone #: 920-496-6687	_	Around Ti					1				<u> </u>
xone/Fax:	608.232.3300	Site PM Name:	Marinette, WI 54143			Foth Project No.:	19M106.2	.20						Standard				<u> 186 13</u>		
PM email:			Denis Roznowski			Send EDD to:	Ci-in I shrk			200	el Requi	red: Sta	indard Le	Level II Repo	.ort					
Micable Lab	===-19-19-10-10-10-10-10-10-10-10-10-10-10-10-10-	Phone/Fac:	(920) 496-6758		1.00	CC Hard copy report to	Steve Lehrke@	foth.com		-   ₹	₽	None	None	None None	None None	None None		None	$T_{i}$	
T		Sample Rame.	Rick Panosh, Bob Meller			OC Efectronic reports (i report and data in spreadsheet formet):	rts (teb steve lehrke	znowski@foth psh@foth.com urke@foth.com	com;	Preservative Soll/Sediment = N	Soli/Sediment = M.	Soll/Sediment = N	ediment =	Soll/Sediment = N.	ediment =	ediment =		Soli/Sediment = No		
GP-{	Samples IDs MUST BE UNIQUE		SAMPLE LOCATION	MATRIX CODE	G#GRAB C#COMP	SAMPLED	SAMPLE TIME	#OF CONTAINERS	Comments/Lab Sample I.D.	Analysis VOC (EPA 8280)		PAH (EPA 6270- S	10000	Total (EPA 6020 & S 7471) Cu and Zn Metals - S		B) ent Molecture		HOLD FOR SCINSTRUCTIONS SC		
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	2, 5.0 - 7.5° 3, 0.2 - 4.0°		GP-12	Soil	С	9/24/20	1220	3		x		x	x >	хх				, 🍴	П	01
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Sample Preservation Receipt Form

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

Client Name: Foth Project # 4025420

All containers needing preservation have been checked and noted below: □Yes □No ₩/A Initial when Date/ completed: Time: Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted): laOH+Zn Act pH ≥9 Vials (>6mm) after adjusted Glass **Plastic Vials** Jars General laOH pH ≥12 12SO4 pH ≤2 Volume NO3 pH ≤2 (mL) WGFU AG10 AG1H AG40 VG9M WPFU AG5U AG2S BG3U **BP3B VG9**0 VG9H **BP1U BP3U BP3N** VG9A VG9D JGFU DG9T JG9N **BP3S** ZPLC SP5T Pace 80 CS Lab # Į 001 2.5 / 5 / 10 002 1 2.5 / 5 / 10 003 2.5 / 5 / 10 004 2.5 / 5 / 10 005 2.5 / 5 / 10 006 2.5 / 5 / 10 007 1 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 9/25/20 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

VG9D

40 mL clear vial DI

**ZPLC** 

GN

ziploc bag

AG5U 100 mL amber glass unpres

AG2S 500 mL amber glass H2SO4

BG3U 250 mL clear glass unpres

Pace Analytical®
1241 Bellevue Street, Green Bay, WI 54302

Document Name:
Sample Condition Upon Receipt (SCUR)

Document No.:

ENV-FRM-GBAY-0014-Rev.00

Document Revised: 26Mar2020

Author:

Pace Green Bay Quality Office

## Sample Condition Upon Receipt Form (SCUR)

Temp Blank Present; Nes	40215420	A0215420
Tracking #:  Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no Custody Seal on Samples Present:  yes  no Seals intact:	40215420	on ice, cooling process has begun  Person examining contents:  Date: 90500/Initials: SRK
Tracking #:  Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no Custody Seal on Samples Present:  yes  no Seals intact:	40215420	on ice, cooling process has begun  Person examining contents:  Date: 90500/Initials: SRK
Custody Seal on Samples Present:		Person examining contents:  Date: 495/00/Initials: SRK
Custody Seal on Samples Present:		Person examining contents:  Date: 495/00/Initials: SRK
Packing Material:       Bubble Wrap SR - 78       Bubble Bags       None       Other Type of Ice:       Other Type of Ice:       Other SR - 78       Type of Ice:       Wet       Blue Dry None         Cooler Temperature Duncorr:       3 · 0       Icorr:       3 · 0       Biological Tissue is Frozen:         Temp Blank Presentzet Syes       No       Biological Tissue is Frozen:         Temp should be above freezing to 6°C.         Biola Samples may be received at ≤ 0°C if shipped on Dry Ice.         Chain of Custody Present:       Myes No       No       1.         Chain of Custody Filled Out:       Myes No       No       No       2.         Chain of Custody Relinquished:       Myes No       No       No       3.         Sampler Name & Signature on COC:       Myes No       No       No       4.         Samples Arrived within Hold Time:       Myes No       No       Date/Time:         Short Hold Time Analysis (<72hr):       Yes No       7.         Short Hold Time Analysis (<72hr):       Yes No       7.         Sufficient Volume:         For Analysis: Myes No       MS/MSD: Yes No       No       9.         Correct Containers Used:       Mye		Person examining contents:  Date: 495/00/Initials: SRK
Cooler Temperature Uncorr: 3 · 0 · /Corr: 3 · 0  Temp Blank Present (		Person examining contents:  Date: 495/00/Initials: SRK
Temp Blank Present; Nes	⊏ yes⊏ no	Date: 995/20 /Initials: SRK
Temp should be above freezing to 6°C. Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.  Chain of Custody Present:	L yesl no	
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.  Chain of Custody Present:		Labeled By Initials:
Chain of Custody Filled Out:		[27] [284] Quantity (27) (27)
Chain of Custody Relinquished:  Sampler Name & Signature on COC:  Samples Arrived within Hold Time:  Ves No No N/A 4.  Samples Arrived within Hold Time:  Ves No Date/Time:  Short Hold Time Analysis (<72hr):  Rush Turn Around Time Requested:  For Analysis:  Yes No 7.  Sufficient Volume:  For Analysis:  Yes No No N/A  Correct Containers Used:  Pace Containers Used:  Pace IR Containers Used:  Containers Intact:  Yes No No N/A  To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A   To No N/A  To No N/A   To No N/A  To No		
Sampler Name & Signature on COC:		
Samples Arrived within Hold Time:  - VOA Samples frozen upon receipt  Short Hold Time Analysis (<72hr):  Rush Turn Around Time Requested:  For Analysis:  Yes No  MS/MSD:  Yes No  No  No  No  Correct Containers Used:  -Pace IR Containers Used:  Containers Intact:  Signs No  Signs No  MS/MSD:  Yes No		
- VOA Samples frozen upon receipt		
- VOA Samples frozen upon receipt		
Short Hold Time Analysis (<72hr):		
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 □ N/A           -Pace Containers Used:         ⋈ Yes □ No ⋈ N/A           -Pace IR Containers Used:         □Yes □ No ⋈ N/A           Containers Intact:         ⋈ Yes □ No ⋈ N/A		
Sufficient Volume:  For Analysis: XYes \sum No MS/MSD: \sum Yes XINo \sum N/A  Correct Containers Used:  -Pace Containers Used:  -Pace IR Containers Used:  Containers Intact:  8.  8.  9.  9.  10.		
Correct Containers Used:  -Pace Containers Used:  -Pace IR Containers Used:  Containers Intact:		
-Pace Containers Used:   -Pace IR Containers Used:   Containers Intact:		
-Pace IR Containers Used: □Yes □No XN/A  Containers Intact: □Yes □No 10.		
Containers Intact:		
10.		
Filtered volume received for Dissolved tests □Yes □No ☒N/A 11.		
Sample Labels match COC: Mayes DNo DN/A 12.		
-Includes date/time/ID/Analysis Matrix: \$		
Trip Blank Present:		
Trip Blank Custody Seals Present □Yes ☒No □N/A		
Pace Trip Blank Lot # (if purchased):		
Client Notification/ Resolution: If Person Contacted: Date/Time:	checked, see attac	hed form for additional comments
Comments/ Resolution:Date/Time:		
andra por esta de la companya de la El companya de la co		

(920)469-2436



November 06, 2020

DENIS ROZNOWSKI Foth Infrastructure & Environment, LLC 2121 Innovation Court De Pere, WI 54115

RE: Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

#### Dear DENIS ROZNOWSKI:

Enclosed are the analytical results for sample(s) received by the laboratory on October 15, 2020. 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

Report revised to include ASTM Leach analysis for metals.

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

Sincerely,

Tod Noltemeyer

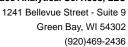
tod.noltemeyer@pacelabs.com (920)469-2436 Project Manager

Tod nolteneya

Enclosures

cc: Steve Lehrke, Foth Infrastructure & Environment RICK PANOSH, Foth Infrastructure & Environment, LLC







#### **CERTIFICATIONS**

Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

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



**SAMPLE SUMMARY** 

Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

Lab ID	Sample ID	Matrix	Date Collected	Date Received	
40216614001	GP-3, 0.1-4.0'	Solid	09/24/20 08:36	10/15/20 12:01	
40216614002	GP-6, 0.2-5.'	Solid	09/23/20 17:02	10/15/20 12:01	
40216614003	GP-12, 5.0-7.5'	Solid	09/24/20 12:20	10/15/20 12:01	
40216614004	GP-13, 0.2-4.0'	Solid	09/24/20 12:25	10/15/20 12:01	



# **SAMPLE ANALYTE COUNT**

Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40216614001	GP-3, 0.1-4.0'	EPA 6010	TXW	2
		EPA 6020	KXS	3
40216614002	GP-6, 0.2-5.'	EPA 6010	TXW	1
		EPA 6020	KXS	3
40216614003	GP-12, 5.0-7.5'	EPA 6010	TXW	1
		EPA 6020	KXS	3
40216614004	GP-13, 0.2-4.0'	EPA 6010	TXW	1
		EPA 6020	KXS	3

PASI-G = Pace Analytical Services - Green Bay



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

#### **PROJECT NARRATIVE**

Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

Method: EPA 6010

Description: 6010 MET ICP, TCLP

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

Date: November 06, 2020

#### **General Information:**

4 samples were analyzed for EPA 6010 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

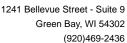
#### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

# **Additional Comments:**





Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

Method: EPA 6020

Description: 6020 MET ICPMS, ASTM

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

Date: November 06, 2020

#### **General Information:**

4 samples were analyzed for EPA 6020 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

#### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

# Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

#### **Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



# **ANALYTICAL RESULTS**

Project: 19M106.20 FMM B34/B35 SUPPLEME

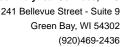
Pace Project No.: 40216614

Date: 11/06/2020 01:32 PM

Sample: GP-3, 0.1-4.0' Lab ID: 40216614001 Collected: 09/24/20 08:36 Received: 10/15/20 12:01 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, TCLP	Leachate	Method/Date	. 6010 Prepa : EPA 1311; 1 es - Green Ba	0/19/20 13:		A 3010			
Arsenic Lead	0.056 0.097	mg/L mg/L	0.025 0.020	0.0084 0.0059	1 1	10/20/20 13:43 10/20/20 13:43	10/21/20 12:57 10/21/20 12:57		
6020 MET ICPMS, ASTM	Leachate	Method/Date	. 6020 Prepa : ASTM D398 es - Green Ba	7; 11/03/20		A 3010			
Bismuth-209 (IS) Lead Zinc	94.952 <0.00024 <0.010	% mg/L mg/L	0.0010 0.034	0.00024 0.010	1 1 1	11/05/20 06:53 11/05/20 06:53 11/05/20 06:53	11/05/20 15:35 11/05/20 15:35 11/05/20 15:35	7439-92-1	





# **ANALYTICAL RESULTS**

Project: 19M106.20 FMM B34/B35 SUPPLEME

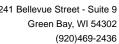
Pace Project No.: 40216614

Date: 11/06/2020 01:32 PM

Sample: GP-6, 0.2-5.' Lab ID: 40216614002 Collected: 09/23/20 17:02 Received: 10/15/20 12:01 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, TCLP	•					A 3010	· · ·		
	Pace Anal	lytical Service	es - Green Ba	у					
Lead	0.056	mg/L	0.020	0.0059	1	10/20/20 13:43	10/21/20 13:12	7439-92-1	
6020 MET ICPMS, ASTM	Leachate	Method/Date	A 6020 Prepa : ASTM D398 es - Green Ba	7; 11/03/20		A 3010			
Bismuth-209 (IS)	100.76	%			1	11/05/20 06:53	11/05/20 16:02	7440-69-9	
Lead	<0.00024	mg/L	0.0010	0.00024	1	11/05/20 06:53	11/05/20 16:02	7439-92-1	
Zinc	<0.010	mg/L	0.034	0.010	1	11/05/20 06:53	11/05/20 16:02	7440-66-6	





# **ANALYTICAL RESULTS**

Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

Date: 11/06/2020 01:32 PM

Sample: GP-12, 5.0-7.5' Lab ID: 40216614003 Collected: 09/24/20 12:20 Received: 10/15/20 12:01 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, TCLP	Leachate I	Method/Date	A 6010 Prepa : EPA 1311; 1 es - Green Ba	0/19/20 13:		A 3010			
Lead	0.033	mg/L	0.020	0.0059	1	10/20/20 13:43	10/21/20 13:18	7439-92-1	
6020 MET ICPMS, ASTM	Leachate I	Method/Date	A 6020 Prepa : ASTM D398 es - Green Ba	7; 11/03/20		A 3010			
Bismuth-209 (IS) Lead Zinc	99.266 <0.00024 <0.010	% mg/L mg/L	0.0010 0.034	0.00024 0.010	1 1 1	11/05/20 06:53 11/05/20 06:53 11/05/20 06:53	11/05/20 16:16 11/05/20 16:16 11/05/20 16:16	7439-92-1	

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# **ANALYTICAL RESULTS**

Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

Date: 11/06/2020 01:32 PM

Sample: GP-13, 0.2-4.0' Lab ID: 40216614004 Collected: 09/24/20 12:25 Received: 10/15/20 12:01 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, TCLP	Analytical	Method: EPA	A 6010 Prepa	ration Meth	od: EP/	A 3010			
	Leachate	Method/Date	: EPA 1311; 1	0/19/20 13:	43				
	Pace Anal	ytical Service	es - Green Ba	у					
Lead	0.044	mg/L	0.020	0.0059	1	10/20/20 13:43	10/21/20 13:47	7439-92-1	
6020 MET ICPMS, ASTM	Analytical	Method: EPA	A 6020 Prepa	ration Meth	od: EP/	A 3010			
	Leachate	Method/Date	: ASTM D398	7; 11/03/20	12:34				
	Pace Anal	ytical Service	es - Green Ba	у					
Bismuth-209 (IS)	97.851	%			1	11/05/20 06:53	11/05/20 16:23	7440-69-9	
Lead	<0.00024	mg/L	0.0010	0.00024	1	11/05/20 06:53	11/05/20 16:23	7439-92-1	
Zinc	<0.010	mg/L	0.034	0.010	1	11/05/20 06:53	11/05/20 16:23	7440-66-6	



#### **QUALITY CONTROL DATA**

Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

QC Batch: 368818 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40216614001, 40216614002, 40216614003, 40216614004

METHOD BLANK: 2132268 Matrix: Water

Associated Lab Samples: 40216614001, 40216614002, 40216614003, 40216614004

Blank Reporting

 Parameter
 Units
 Result
 Limit
 Analyzed
 Qualifiers

 mg/L
 <0.0084</td>
 0.025
 10/21/20 12:52

Arsenic mg/L <0.0084 0.025 10/21/20 12:52 Lead mg/L <0.0059 0.020 10/21/20 12:52

METHOD BLANK: 2131602 Matrix: Solid

Associated Lab Samples: 40216614001, 40216614002, 40216614003, 40216614004

Blank Reporting
Units Result Limit

 Parameter
 Units
 Result
 Limit
 Analyzed
 Qualifiers

 Arsenic
 mg/L
 <0.0084</td>
 0.025
 10/21/20 13:44

 Lead
 mg/L
 <0.0059</td>
 0.020
 10/21/20 13:44

METHOD BLANK: 2131603 Matrix: Solid

Associated Lab Samples: 40216614001, 40216614002, 40216614003, 40216614004

Blank Reporting Parameter Units Result Limit Analyzed Qualifiers Arsenic mg/L < 0.0084 0.025 10/21/20 13:52 Lead mg/L < 0.0059 0.020 10/21/20 13:52

LABORATORY CONTROL SAMPLE: 2132269

LCS LCS Spike % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Arsenic 0.5 0.50 101 80-120 mg/L Lead mg/L 0.5 0.50 100 80-120

MATRIX SPIKE SAMPLE: 2132270

Date: 11/06/2020 01:32 PM

Parameter	Units	40216034001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	<0.0084	0.5	0.52	103	75-125	
Lead	mg/L	<0.012	0.5	0.50	99	75-125	

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.





# **QUALITY CONTROL DATA**

Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

Date: 11/06/2020 01:32 PM

MATRIX SPIKE SAMPLE:	2132271						
		40216614001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	mg/L	0.056	0.5	0.59	106	75-125	
Lead	mg/L	0.097	0.5	0.58	97	75-125	

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.



#### **QUALITY CONTROL DATA**

Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

QC Batch: 370329 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET ASTM

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40216614001, 40216614002, 40216614003, 40216614004

METHOD BLANK: 2140876 Matrix: Water
Associated Lab Samples: 40216614001, 40216614002, 40216614003, 40216614004

1, 40216614002, 40216614003, 40216614004 Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Lead mg/L <0.00024 0.0010 11/05/20 13:51 Zinc mg/L <0.010 0.034 11/05/20 13:51

METHOD BLANK: 2139683 Matrix: Solid

Associated Lab Samples: 40216614001, 40216614002, 40216614003, 40216614004

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers Lead < 0.00024 0.0010 11/05/20 13:58 mg/L 11/05/20 13:58 Zinc mg/L < 0.010 0.034

LABORATORY CONTROL SAMPLE: 2140877

Date: 11/06/2020 01:32 PM

LCS LCS % Rec Spike % Rec Parameter Conc. Result Limits Qualifiers Units 0.5 0.49 97 80-120 Lead mg/L Zinc mg/L 0.5 0.51 101 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2140878 2140879

			MS	MSD								
		40216614001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Lead	mg/L	<0.00024	0.5	0.5	0.49	0.50	99	100	75-125	1	20	
Zinc	mg/L	< 0.010	0.5	0.5	0.49	0.50	98	99	75-125	1	20	

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



#### **QUALIFIERS**

Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

#### **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.

Date: 11/06/2020 01:32 PM



# **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 19M106.20 FMM B34/B35 SUPPLEME

Pace Project No.: 40216614

Date: 11/06/2020 01:32 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40216614001	GP-3, 0.1-4.0'	EPA 3010	368818	EPA 6010	368932
40216614002	GP-6, 0.2-5.'	EPA 3010	368818	EPA 6010	368932
40216614003	GP-12, 5.0-7.5'	EPA 3010	368818	EPA 6010	368932
40216614004	GP-13, 0.2-4.0'	EPA 3010	368818	EPA 6010	368932
40216614001	GP-3, 0.1-4.0'	EPA 3010	370329	EPA 6020	370385
40216614002	GP-6, 0.2-5.'	EPA 3010	370329	EPA 6020	370385
40216614003	GP-12, 5.0-7.5'	EPA 3010	370329	EPA 6020	370385
40216614004	GP-13, 0.2-4.0'	EPA 3010	370329	EPA 6020	370385



# CHAIN-OF-CUSTODY / Analytical Request Document The Chein-of-Custody is a LEGAL DOCUMENT. All relevent fields must be completed and accurate.

Information: Name: Page Analytical Services Inc	Project Information:				Other Information:	<u> 134 40 - </u>												
, and the state of	Site ID #:	FMM B34/B35 Supple	mental Yard	inv.	Send Invoice to:	invoices@foth	,com		Tags.	1 1 1	1.0	3.7	1 1 1 1		1	14 254 1		
1241 Bellevue Street, Ste. 9, Green Bay, WI 54302	Project #:	19M 106.20			Address: 2121 I	nnovation Ct.			Task		Sediment/S	oil Chem	stry Sampli	ng .	100			
	Sile Address:	Fincantieri Marinette Ma 1600 Fly Street	arine		City/State: De Per	re WI 54115		Phone #: 920-496-6687		Around Ti		Stand		7-day				
Tod Nottemeyer	City-State-Zip:	Marinette, WI 54143			Foth Project No.:	19M108.	20				ed: Standa			/				
e/Fax: 608.232.330O	São PM Name:	Denis Roznowski								7	T. Clarka	1	T T		T -	ТТ		TT
M email: Tod.Noltemeyer@pacelabs.com	Phone/Fax:	(920) 498-6758	4 3 44 3	1 7 7	Send EDD to: CC Hard copy report to:	Steve Lehrke@	foth.com		- S	None						ğ		
cath Lei Quus I	Sampler Name: Ri	ck Panosh, Bob Meller			CC Electronic reports (la report and data in epresidaheel format):	rick.panos	owski@foth h@foth.com		Preservative	Soil/Sediment =						Soli/Sediment =		
Samples IDs MUST BE UNIQUE		SAMPLE LOCATION	MATRIX CODE	G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	Comments/Lab Sample I.D.	Analysis TCLP Amenic	TCLP Lead						HOLD FOR INSTRUCTIONS		
GP-3, 0.1 - 4.0'		GP-3	Soll	С	9/24/20	0836	1		×	x								
GP-8, 0.2 - 5.0'		GP-6	Soli	С	9/23/20	1702	1		11 î	x				1				
GP-12, 5.0 - 7.5'		GP-12	Soil	С	9/24/20	1220	1		1	$\frac{1}{x}$								
GP-13, 0.2 - 4.0'	44) 	GP-13	Soil	С	9/24/20	1225	1			x								
						1												
				1														
						- 1												
							Salar S											
nal Comments/Special Instructions					FFAHON	DATE	TIME.	ACCEPTED BY / AFFILIATION			DATE	TIME	Sam	ple Receip	t Condition	•		
			Shall	3/	ust 1	0-15-20	1/14	01 Weddu LA	oveh	pre	10-15-7	120	01 0	c C	)vn	Y/I		Y/N
														$\perp$	′/N	Υ/1		Y/N
															′/N	Y/I		Y/N
															/N	Y/1		Y/N
			SHIPPING IN	FO:	PRINT Name o	SAMPLER NA	ME AND SIG	NATURE					ပ္င	1		eect?	iay e	¥
			Treeting #:		SCHATURE &		Rick Pan	osh /)					d E		8	phe int		Trip Blan
				<u>. 5.46</u>			11/00/	Parl DATE Grand	1-15-	-20		100	カー・	8	5	Series		F

Pace Analytical Services, LLC 1241 Bellevue Street, Suite 9<sup>co</sup> Green Bay, WI 543025

Client Name: Wh

All containers needing preservation have been checked and noted below: DYes DNo DNA Initial when Date/ completed: Time: Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted): laOH+Zn Act pH ≥9 'OA Vials (>6mm) after adjusted Glass **Plastic** Vials General Jars 12SO4 pH ≤2 laOH pH ≥12 Volume NO3 pH s2 NGFU (mL) WPFU BG3U VG9A **G69**/ **AG1U** 4G2S BP3U **BP3B BP3N BP3S** JGFU 1690 DG9T **H69**/ ZPLC SP5T Pace S Lab# 001 2.5 / 5 / 10 002 2.5 / 5 / 10 003 2.5 / 5 / 10 2.5/5/10 **D05** 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 2.5 / 5 / 10 013 2.5 / 5 / 10 014 2.5 / 5 / 10 015 2.5 / 5 / 10 2.5 / 5 / 10 017 2.5 / 5 / 10 018 2.5/5/10 019 2.5 / 5 / 10 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 MVA \*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 iar 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

VG9D

40 mL clear vial DI

**ZPLC** 

GN

ziploc bag

AG5U 100 mL amber glass unpres

AG2S 500 mL amber glass H2SO4

BG3U 250 mL clear glass unpres

Pace Analytical \*
1241 Bellevue Street, Green Bay, WI 54302

Document Name:
Sample Condition Upon Receipt (SCUR)

Document No.: ENV-FRM-GBAY-0014-Rev.00

Document Revised: 26Mar2020

Author:

Pace Green Bay Quality Office

# Sample Condition Upon Receipt Form (SCUR)

Client Name: OW Courier: CS Logistics Fed Ex Sp Client Pace Other: Tracking #: Custody Seal on Cooler/Box Present: C	peedee DUPS DWaltco	WO#:40216614
Custody Seal on Cooler/Box Present:  yes  Custody Seal on Samples Present:  yes  Packing Material:  Bubble Wrap  E  Thermometer Used  SR -  9  Cooler Temperature  Uncorr:  2	Seals intact: yes Bubble Bags None Of Type of Ice: Web Blue Dry rr: 2-0 Biological Tissue is I	ther None Samples on ice, cooling process has begun Person examining contents:  Date: Old Do/Initials:
Chain of Custody Present:	Ves □No □N/A 1.	Labeled By Initials:
Chain of Custody Filled Out:	No □N/A 2.	
Chain of Custody Relinquished:	D≪es □No □N/A 3.	
Sampler Name & Signature on COC:	DAYes □No □N/A 4.	
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	Sees □No 5. □Yes □No Date/Time:	
Short Hold Time Analysis (<72hr):	□Yes 15/kNo 6.	
Rush Turn Around Time Requested:	⊡Yes DANio 7.	
Sufficient Volume: For Analysis: ▷Kes □No MS/N	8. ISD: □Yes □N/A	
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	Syres □no □n/A □Yes □no □n/A	
Containers Intact:	D≪es □No 10.	
iltered volume received for Dissolved tests	□Yes □No □NA 11.	
ample Labels match COC: -Includes date/time/ID/Analysis Matrix:	DKes □no □n/a 12.	
rip Blank Present: rip Blank Custody Seals Present ace Trip Blank Lot # (if purchased):	□Yes □No DANIA 13. □Yes □No DANIA	
lient Notification/ Resolution:  Person Contacted:  Comments/ Resolution:	Date/Time:	If checked, see attached form for additional comments

# **Attachment 4**





October 08, 2020

DENIS ROZNOWSKI Foth Infrastructure & Environment, LLC 2121 Innovation Court De Pere, WI 54115

RE: Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

#### Dear DENIS ROZNOWSKI:

Enclosed are the analytical results for sample(s) received by the laboratory on September 30, 2020. 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
- Pace Analytical Services Minneapolis

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

Sincerely,

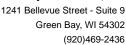
Tod nottemeyor

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

Enclosures

cc: Steve Lehrke, Foth Infrastructure & Environment RICK PANOSH, Foth Infrastructure & Environment, LLC







#### **CERTIFICATIONS**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Pace Analytical Services - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414

A2LA Certification #: 2926.01 Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064 Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064 Arkansas WW Certification #: 88-0680

California Certification #: 2929

Colorado Certification #: MN00064 Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-

053-137

Florida Certification #: E87605 Georgia Certification #: 959 Hawaii Certification #: MN00064 Idaho Certification #: MN00064 Illinois Certification #: 200011

Indiana Certification #: C-MN-01 Iowa Certification #: 368 Kansas Certification #: E-10167 Kentucky DW Certification #: 90062 Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: AI-03086

Louisiana DW Certification #: MN00064 Maine Certification #: MN00064 Maryland Certification #: 322

Massachusetts DWP Certification #: via MN 027-053-137

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137

Minnesota Petrofund Certification #: 1240

Mississippi Certification #: MN00064 Missouri Certification #: 10100 Montana Certification #: CERT0092 Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064 New Hampshire Certification #: 2081 New Jersey Certification #: MN002

New York Certification #: 11647 North Carolina DW Certification #: 27700 North Carolina WW Certification #: 530 North Dakota Certification #: R-036 Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101 Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #: 74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064

Vermont Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

USDA Permit #: P330-19-00208

#### 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



# **SAMPLE SUMMARY**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40215637001	GP-1W	Water	09/29/20 12:25	09/30/20 10:15
40215637002	GP-3W	Water	09/29/20 14:25	09/30/20 10:15
40215637003	GP-6W	Water	09/29/20 10:45	09/30/20 10:15
40215637004	GP-4W	Water	09/29/20 08:55	09/30/20 10:15
40215637005	GP-4W-D	Water	09/29/20 08:55	09/30/20 10:15
40215637006	TRIP BLANK	Water	09/29/20 00:00	09/30/20 10:15



# **SAMPLE ANALYTE COUNT**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40215637001	GP-1W	EPA 8081B	AMV	24	PASI-M
		EPA 8082	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 8270 by HVI	JJB	20	PASI-G
		EPA 8260	HNW	64	PASI-G
0215637002	GP-3W	EPA 8081B	AMV	24	PASI-M
		EPA 8082	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 8270 by HVI	JJB	20	PASI-G
		EPA 8260	HNW	64	PASI-G
0215637003	GP-6W	EPA 8081B	AMV	24	PASI-M
		EPA 8082	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 8270 by HVI	JJB	20	PASI-G
		EPA 8260	HNW	64	PASI-G
0215637004	GP-4W	EPA 8081B	AMV	24	PASI-M
		EPA 8082	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 7470	AJT	1	PASI-G
		EPA 8270 by HVI	JJB	20	PASI-G
		EPA 8260	HNW	64	PASI-G
0215637005	GP-4W-D	EPA 8081B	AMV	24	PASI-M
		EPA 8082	BLM	10	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 6020	DS1	9	PASI-G
		EPA 7470	AJT	1	PASI-G

# **REPORT OF LABORATORY ANALYSIS**

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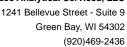
# **SAMPLE ANALYTE COUNT**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470	AJT	1	PASI-G
		EPA 8270 by HVI	JJB	20	PASI-G
		EPA 8260	HNW	64	PASI-G
40215637006	TRIP BLANK	EPA 8260	HNW	64	PASI-G

PASI-G = Pace Analytical Services - Green Bay PASI-M = Pace Analytical Services - Minneapolis





Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Method: EPA 8081B

Description: 8081B GCS Pesticides

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 08, 2020

#### **General Information:**

5 samples were analyzed for EPA 8081B by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA Mod. 3510C with any exceptions noted below.

# Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

#### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### **Additional Comments:**

Analyte Comments:

QC Batch: 702134

- GP-1W (Lab ID: 40215637001)
  - Heptachlor
- GP-3W (Lab ID: 40215637002)
  - Heptachlor
- GP-4W (Lab ID: 40215637004)
  - Heptachlor
- GP-4W-D (Lab ID: 40215637005)
  - Heptachlor
- GP-6W (Lab ID: 40215637003)
  - Heptachlor



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#### **PROJECT NARRATIVE**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Method: EPA 8082 Description: 8082 GCS PCB

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 08, 2020

#### **General Information:**

5 samples were analyzed for EPA 8082 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Surrogates:

All surrogates were within QC limits with any exceptions noted below.

#### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 367386

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

# **Additional Comments:**



19M106.20 FINCANTIERI MARINETT Project:

Pace Project No.: 40215637

Method: **EPA 6020** 

Description: 6020 MET ICPMS

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

Date: October 08, 2020

#### **General Information:**

5 samples were analyzed for EPA 6020 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# **Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

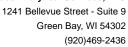
### **Additional Comments:**

**Analyte Comments:** 

QC Batch: 367155

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

- GP-1W (Lab ID: 40215637001)
  - Silver
  - Cadmium
  - Chromium
  - Copper
  - Selenium
  - Zinc
- GP-3W (Lab ID: 40215637002)
  - Silver
  - Cadmium





Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Method: EPA 6020

Description: 6020 MET ICPMS

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 08, 2020

Analyte Comments: QC Batch: 367155

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

- GP-3W (Lab ID: 40215637002)
  - Chromium
  - Copper
  - Lead
  - Selenium
  - Zinc
- GP-4W (Lab ID: 40215637004)
  - Silver
  - Cadmium
  - Chromium
  - Copper
  - Lead
  - Selenium
- GP-4W-D (Lab ID: 40215637005)
  - Silver
  - Cadmium
  - Chromium
  - Copper
  - Lead
  - Selenium
- GP-6W (Lab ID: 40215637003)
  - Silver
  - Cadmium
  - Chromium
  - Copper
  - Lead
  - Selenium
  - Zinc



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#### **PROJECT NARRATIVE**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Method: EPA 6020

Description: 6020 MET ICPMS, Dissolved

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 08, 2020

#### **General Information:**

5 samples were analyzed for EPA 6020 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

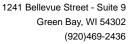
### **Additional Comments:**

Analyte Comments:

QC Batch: 367154

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

- GP-1W (Lab ID: 40215637001)
  - Silver, Dissolved
  - · Cadmium, Dissolved
  - Chromium, Dissolved
  - · Copper, Dissolved
  - · Lead, Dissolved
  - · Selenium, Dissolved
  - Zinc, Dissolved
- GP-3W (Lab ID: 40215637002)
  - · Silver, Dissolved





Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Method: EPA 6020

Description: 6020 MET ICPMS, Dissolved

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 08, 2020

Analyte Comments: QC Batch: 367154

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

- GP-3W (Lab ID: 40215637002)
  - Cadmium, Dissolved
  - Chromium, Dissolved
  - Copper, Dissolved
  - Lead, Dissolved
  - Selenium, Dissolved
  - · Zinc, Dissolved
- GP-4W (Lab ID: 40215637004)
  - · Silver, Dissolved
  - · Cadmium, Dissolved
  - Chromium, Dissolved
  - Copper, Dissolved
  - Lead, Dissolved
  - Selenium, Dissolved
- GP-4W-D (Lab ID: 40215637005)
  - Silver, Dissolved
  - Cadmium, Dissolved
  - Chromium, Dissolved
  - Copper, Dissolved
  - Lead, Dissolved
  - Selenium, Dissolved
- GP-6W (Lab ID: 40215637003)
  - Silver, Dissolved
  - · Cadmium, Dissolved
  - Chromium, Dissolved
  - Copper, Dissolved
  - Lead, Dissolved
  - Selenium, Dissolved
  - Zinc, Dissolved



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#### **PROJECT NARRATIVE**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Method: EPA 7470
Description: 7470 Mercury

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 08, 2020

#### **General Information:**

5 samples were analyzed for EPA 7470 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

# **Additional Comments:**



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#### **PROJECT NARRATIVE**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Method: EPA 7470

Description: 7470 Mercury, Dissolved

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 08, 2020

#### **General Information:**

5 samples were analyzed for EPA 7470 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

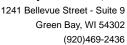
#### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

# **Additional Comments:**





Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Method: EPA 8270 by HVI

Description: 8270 MSSV PAH by HVI

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 08, 2020

#### **General Information:**

5 samples were analyzed for EPA 8270 by HVI by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

# Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

#### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 367047

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

- MS (Lab ID: 2121671)
  - 2-Fluorobiphenyl (S)
  - Terphenyl-d14 (S)
- MSD (Lab ID: 2121672)
  - 2-Fluorobiphenyl (S)
  - Terphenyl-d14 (S)

## Method Blank:

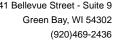
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.





Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Method: EPA 8270 by HVI
Description: 8270 MSSV PAH by HVI

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

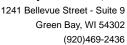
**Date:** October 08, 2020

QC Batch: 367047

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40215640003 M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 2121671)
  - 1-Methylnaphthalene
  - 2-Methylnaphthalene
  - Acenaphthene
  - Anthracene
  - Benzo(a)anthracene
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluoranthene
  - Fluorene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene
- MSD (Lab ID: 2121672)
  - 1-Methylnaphthalene
  - 2-Methylnaphthalene
  - Acenaphthene
  - Anthracene
  - Benzo(a)anthracene
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluoranthene
  - Fluorene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene

# **Additional Comments:**





Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Method: EPA 8260 Description: 8260 MSV

Client: FOTH INFRASTRUCTURE & ENVIRONMENT

**Date:** October 08, 2020

#### **General Information:**

6 samples were analyzed for EPA 8260 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

#### **Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

#### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

# Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

## **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

#### **Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



# **ANALYTICAL RESULTS**

Project: 19M106.20 FINCANTIERI MARINETT

Date: 10/08/2020 01:26 PM

Sample: CB 4\M	I ah ID:	4024E627004	Callagta	00/20/20	12:25	Pagainade 00	20/20 10:15	atrix: \Matax	
Sample: GP-1W	Lab ID:	40215637001	Collected:	09/29/20	12:25	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical	Method: EPA 8	081B Prepa	ration Meth	nod: EP	PA Mod. 3510C			
		lytical Services							
Aldrin	<0.015	ug/L	0.052	0.015	1	10/02/20 14:53	10/05/20 17:46	309-00-2	
alpha-BHC	0.017J	ug/L	0.022	0.0065	1	10/02/20 14:53	10/05/20 17:46		
beta-BHC	0.019J	ug/L	0.036	0.000	1	10/02/20 14:53	10/05/20 17:46		
delta-BHC	<0.013	ug/L	0.045	0.013	1	10/02/20 14:53	10/05/20 17:46		
gamma-BHC (Lindane)	<0.0065	ug/L	0.022	0.0065	1	10/02/20 14:53	10/05/20 17:46		
Chlordane (Technical)	<0.21	ug/L	0.69	0.21	1	10/02/20 14:53	10/05/20 17:46		
alpha-Chlordane	0.010J	ug/L	0.020	0.0059	1	10/02/20 14:53			
gamma-Chlordane	<0.0069	ug/L	0.023	0.0069	1	10/02/20 14:53			
4,4'-DDD	<0.022	ug/L	0.073	0.022	1	10/02/20 14:53	10/05/20 17:46		
4,4'-DDE	<0.012	ug/L	0.040	0.022	1	10/02/20 14:53	10/05/20 17:46		
4,4'-DDT	<0.012	ug/L ug/L	0.040	0.012	1	10/02/20 14:53	10/05/20 17:46		
Dieldrin	<0.027	ug/L ug/L	0.031	0.027	1	10/02/20 14:53			
Endosulfan I	0.011J	ug/L ug/L	0.031	0.0092	1	10/02/20 14:53			
Endosulfan II	<0.012	ug/L ug/L	0.024	0.0073	1	10/02/20 14:53	10/05/20 17:46		
Endosulfan sulfate	<0.012 <0.014	-	0.039	0.012	1	10/02/20 14:53	10/05/20 17:46		
		ug/L					10/05/20 17:46		
Endrin	<0.020	ug/L	0.068	0.020	1	10/02/20 14:53			
Endrin aldehyde	<0.018	ug/L	0.060	0.018	1	10/02/20 14:53 10/02/20 14:53			
Endrin ketone	0.055J	ug/L	0.085	0.025	1				
Heptachlor	<0.0093	ug/L	0.031	0.0093	1	10/02/20 14:53	10/05/20 17:46		
Heptachlor epoxide	<0.0072	ug/L	0.024	0.0072	1	10/02/20 14:53	10/05/20 17:46		
Methoxychlor	<0.17	ug/L	0.56	0.17	1	10/02/20 14:53	10/05/20 17:46		
Toxaphene Surrogates	<0.45	ug/L	1.5	0.45	1	10/02/20 14:53	10/05/20 17:46		
Tetrachloro-m-xylene (S)	90	%.	55-130		1	10/02/20 14:53	10/05/20 17:46	877-09-8	
Decachlorobiphenyl (S)	67	%.	36-145		1	10/02/20 14:53	10/05/20 17:46	2051-24-3	v1
8082 GCS PCB		Method: EPA 8		tion Metho	od: EPA	3510			
	Pace Ana	llytical Services	- Green Bay						
PCB-1016 (Aroclor 1016)	<0.11	ug/L	0.51	0.11	1	10/05/20 14:17	10/06/20 11:47	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.11	ug/L	0.51	0.11	1	10/05/20 14:17	10/06/20 11:47	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.11	ug/L	0.51	0.11	1	10/05/20 14:17	10/06/20 11:47	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.11	ug/L	0.51	0.11	1	10/05/20 14:17	10/06/20 11:47	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.11	ug/L	0.51	0.11	1	10/05/20 14:17	10/06/20 11:47	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.11	ug/L	0.51	0.11	1	10/05/20 14:17	10/06/20 11:47	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.11	ug/L	0.51	0.11	1	10/05/20 14:17	10/06/20 11:47	11096-82-5	
PCB, Total  Surrogates	<0.11	ug/L	0.51	0.11	1	10/05/20 14:17	10/06/20 11:47	1336-36-3	
Tetrachloro-m-xylene (S)	64	%	39-127		1	10/05/20 14:17	10/06/20 11:47	877-09-8	
Decachlorobiphenyl (S)	25	%	15-121		1		10/06/20 11:47		
6020 MET ICPMS	Analytical	Method: EPA 6	020 Prepara	tion Metho	od: EPA	3010			
		lytical Services							
Arsenic	28.9	ug/L	5.0	1.4	5	10/02/20 07:11	10/06/20 19:02	7440-38-2	
Barium	736	ug/L	11.6	3.5	5	10/02/20 07:11	10/06/20 19:02	7440-39-3	
		-					10/06/20 19:02		



# **ANALYTICAL RESULTS**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-1W	Lab ID:	40215637001	Collected	d: 09/29/20	12:25	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical	Method: EPA 60	020 Prepar	ation Metho	od: EPA	3010			
	-	lytical Services							
Chromium	6.4J	ug/L	17.0	5.1	5	10/02/20 07:11	10/06/20 19:02	7440-47-3	D3
Copper	<9.5	ug/L	31.8	9.5	5	10/02/20 07:11	10/06/20 19:02		D3
Lead	8.1	ug/L	5.0	1.2	5	10/02/20 07:11	10/06/20 19:02		
Selenium	3.5J	ug/L	5.3	1.6	5	10/02/20 07:11	10/06/20 19:02	7782-49-2	D3
Silver	1.3J	ug/L	2.5	0.64	5	10/02/20 07:11	10/06/20 19:02		D3
Zinc	<51.6	ug/L	172	51.6	5	10/02/20 07:11	10/06/20 19:02		D3
6020 MET ICPMS, Dissolved	Analytical	Method: EPA 60	020 Prepar	ation Metho	od: EPA	3010			
	Pace Ana	lytical Services -	- Green Bay	/					
Arsenic, Dissolved	25.1	ug/L	5.0	1.4	5	10/02/20 07:05	10/06/20 20:10	7440-38-2	
Barium, Dissolved	720	ug/L	11.6	3.5	5	10/02/20 07:05	10/06/20 20:10	7440-39-3	
Cadmium, Dissolved	1.5J	ug/L	5.0	0.76	5	10/02/20 07:05	10/06/20 20:10	7440-43-9	D3
Chromium, Dissolved	<5.1	ug/L	17.0	5.1	5	10/02/20 07:05	10/06/20 20:10	7440-47-3	D3
Copper, Dissolved	<9.5	ug/L	31.8	9.5	5	10/02/20 07:05	10/06/20 20:10	7440-50-8	D3
Lead, Dissolved	4.0J	ug/L	5.0	1.2	5	10/02/20 07:05	10/06/20 20:10	7439-92-1	D3
Selenium, Dissolved	2.7J	ug/L	5.3	1.6	5	10/02/20 07:05	10/06/20 20:10	7782-49-2	D3
Silver, Dissolved	0.88J	ug/L	2.5	0.64	5	10/02/20 07:05	10/06/20 20:10	7440-22-4	D3
Zinc, Dissolved	<51.6	ug/L	172	51.6	5	10/02/20 07:05	10/06/20 20:10	7440-66-6	D3
7470 Mercury	-	Method: EPA 74			od: EPA	7470			
Mercury	<0.066	ug/L	0.20	0.066	1	10/05/20 10:35	10/06/20 09:40	7439-97-6	
7470 Mercury, Dissolved	Analytical	Method: EPA 74	470 Prepar	ation Metho	od: EPA	7470			
<b>,</b> ,	-	lytical Services -							
M 5: 1 :		iyildal Oct vices	- Green Bay	/					
Mercury, Dissolved	<0.066	ug/L	0.20	0.066	1	10/05/20 10:35	10/06/20 10:55	7439-97-6	
•		•	0.20	0.066			10/06/20 10:55	7439-97-6	
•	Analytical	ug/L	0.20 270 by HVI	0.066 Preparatio			10/06/20 10:55	7439-97-6	
8270 MSSV PAH by HVI	Analytical	ug/L Method: EPA 82	0.20 270 by HVI	0.066 Preparatio			10/06/20 10:55 10/01/20 16:42		
8270 MSSV PAH by HVI  1-Methylnaphthalene	Analytical Pace Anal	ug/L Method: EPA 82 lytical Services - ug/L	0.20 270 by HVI - Green Bay	0.066 Preparatio	n Metho	od: EPA 3510		90-12-0	
8270 MSSV PAH by HVI  1-Methylnaphthalene 2-Methylnaphthalene	Analytical Pace Anal <b>0.53</b>	ug/L Method: EPA 82 lytical Services - ug/L ug/L	0.20 270 by HVI - Green Bay 0.028	0.066 Preparatio / 0.0055	n Metho	od: EPA 3510 10/01/20 08:50	10/01/20 16:42	90-12-0 91-57-6	
8270 MSSV PAH by HVI  1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene	Analytical Pace Anal 0.53 0.55	ug/L Method: EPA 82 lytical Services - ug/L	0.20 270 by HVI - Green Bay 0.028 0.023	0.066 Preparatio / 0.0055 0.0046	n Metho 1 1	od: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/01/20 16:42 10/01/20 16:42	90-12-0 91-57-6 83-32-9	
8270 MSSV PAH by HVI  1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene	Analytical Pace Anal 0.53 0.55 0.19	ug/L  Method: EPA 82  lytical Services -  ug/L  ug/L  ug/L  ug/L  ug/L  ug/L	0.20 270 by HVI - Green Bay 0.028 0.023 0.028	0.066 Preparatio / 0.0055 0.0046 0.0057	n Metho 1 1 1	od: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/01/20 16:42 10/01/20 16:42 10/01/20 16:42	90-12-0 91-57-6 83-32-9 208-96-8	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene	Analytical Pace Anal 0.53 0.55 0.19 <0.0047 0.020J	ug/L  Method: EPA 82  lytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.028 0.023 0.028 0.023 0.049	0.066  Preparatio   0.0055  0.0046  0.0057  0.0047  0.0098	n Metho 1 1 1 1	od: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene	Analytical Pace Anal 0.53 0.55 0.19 <0.0047	ug/L  Method: EPA 82  lytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.028 0.023 0.028 0.023	0.066  Preparatio  /  0.0055  0.0046  0.0057  0.0047	n Metho 1 1 1 1	od: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene	Analytical Pace Anal 0.53 0.55 0.19 <0.0047 0.020J <0.0071	ug/L  Method: EPA 82  lytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.028 0.023 0.028 0.023 0.049 0.035	0.066  Preparatio  7  0.0055  0.0046  0.0057  0.0047  0.0098  0.0071	n Metho 1 1 1 1 1	od: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene	Analytical Pace Anal 0.53 0.55 0.19 <0.0047 0.020J <0.0071 <0.0098	ug/L  Method: EPA 82  lytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.028 0.023 0.028 0.023 0.049 0.035 0.049	0.066  Preparatio  0.0055  0.0046  0.0057  0.0047  0.0098  0.0071  0.0098  0.0054	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0d: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2	
1-Methylnaphthalene 2-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene	Analytical Pace Anal 0.53 0.55 0.19 <0.0047 0.020J <0.0071 <0.0098 <0.0054 <0.0063	ug/L  Method: EPA 82  lytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.028 0.023 0.028 0.023 0.049 0.035 0.049 0.027 0.032	0.066  Preparatio  0.0055  0.0046  0.0057  0.0047  0.0098  0.0071  0.0098  0.0054  0.0063	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0d: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2	
1-Methylnaphthalene 2-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene	Analytical Pace Anal 0.53 0.55 0.19 <0.0047 0.020J <0.0071 <0.0098 <0.0054 <0.0063 <0.0071	ug/L  Method: EPA 82  lytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.028 0.023 0.028 0.023 0.049 0.035 0.049 0.027 0.032 0.035	0.066  Preparatio  0.0055 0.0046 0.0057 0.0047 0.0098 0.0071 0.0098 0.0054 0.0063 0.0071	n Method 1 1 1 1 1 1 1 1 1	0d: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42 10/01/20 16:42	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene	Analytical Pace Anal 0.53 0.55 0.19 <0.0047 0.020J <0.0071 <0.0098 <0.0054 <0.0063 <0.0071 <0.012	ug/L  Method: EPA 82  lytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.028 0.023 0.028 0.023 0.049 0.035 0.049 0.027 0.032 0.035 0.061	0.066  Preparatio  0.0055 0.0046 0.0057 0.0047 0.0098 0.0071 0.0098 0.0054 0.0063 0.0071 0.012	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50	10/01/20 16:42 10/01/20 16:42	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 218-01-9	
1-Methylnaphthalene 2-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene	Analytical Pace Anal 0.53 0.55 0.19 <0.0047 0.020J <0.0071 <0.0098 <0.0054 <0.0063 <0.0071 <0.012 <0.0094	ug/L  Method: EPA 82  lytical Services -  ug/L   0.20 270 by HVI - Green Bay 0.028 0.023 0.028 0.023 0.049 0.035 0.049 0.027 0.032 0.035 0.061 0.047	0.066  Preparatio  0.0055 0.0046 0.0057 0.0047 0.0098 0.0071 0.0098 0.0054 0.0063 0.0071 0.012 0.0094	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50	10/01/20 16:42 10/01/20 16:42	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 218-01-9 53-70-3		
Mercury, Dissolved  8270 MSSV PAH by HVI  1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene Fluoranthene Fluorene	Analytical Pace Anal 0.53 0.55 0.19 <0.0047 0.020J <0.0071 <0.0098 <0.0054 <0.0063 <0.0071 <0.012	ug/L  Method: EPA 82  lytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.028 0.023 0.028 0.023 0.049 0.035 0.049 0.027 0.032 0.035 0.061	0.066  Preparatio  0.0055 0.0046 0.0057 0.0047 0.0098 0.0071 0.0098 0.0054 0.0063 0.0071 0.012	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50	10/01/20 16:42 10/01/20 16:42	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 218-01-9 53-70-3 206-44-0	



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-1W	Lab ID:	40215637001	Collecte	d: 09/29/20	12:25	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
8270 MSSV PAH by HVI	Analytica	Method: EPA 8	270 by HVI	Preparation	n Meth	od: EPA 3510			
•		lytical Services	-						
Naphthalene	0.29	ug/L	0.086	0.017	1	10/01/20 08:50	10/01/20 16:42	01 20 2	
Phenanthrene	0.14	ug/L ug/L	0.064	0.017	1	10/01/20 08:50	10/01/20 16:42		
Pyrene	0.018J	ug/L ug/L	0.036	0.013	1	10/01/20 08:50	10/01/20 16:42		
Surrogates	0.0103	ug/L	0.030	0.0071	'	10/01/20 00.50	10/01/20 10.42	129-00-0	
2-Fluorobiphenyl (S)	49	%	39-120		1	10/01/20 08:50	10/01/20 16:42	321-60-8	
Terphenyl-d14 (S)	51	%	10-159		1		10/01/20 16:42		
8260 MSV	Analytica	Method: EPA 8	260						
5255 MG1	-	lytical Services		у					
Benzene	3.4	ug/L	1.0	0.25	1		10/03/20 01:37	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/03/20 01:37		
Bromochloromethane	< 0.36	ug/L	5.0	0.36	1		10/03/20 01:37		
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/03/20 01:37	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/03/20 01:37		
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/03/20 01:37		
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/03/20 01:37		
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/03/20 01:37		
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/03/20 01:37		
Carbon tetrachloride	<1.1	ug/L	3.6	1.1	1		10/03/20 01:37		
Chlorobenzene	2.0J	ug/L	2.4	0.71	1		10/03/20 01:37		
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/03/20 01:37		
Chloroform	<1.3	ug/L	5.0	1.3	1		10/03/20 01:37		
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/03/20 01:37		
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/03/20 01:37		
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/03/20 01:37		
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/03/20 01:37		
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/03/20 01:37		
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/03/20 01:37		
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/03/20 01:37		
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.94	1		10/03/20 01:37		
1,3-Dichlorobenzene	<0.63	ug/L	2.4	0.63	1		10/03/20 01:37		
1,4-Dichlorobenzene	<0.94	ug/L ug/L	3.1	0.63	1		10/03/20 01:37		
Dichlorodifluoromethane	<0.50	-	5.0	0.50	1		10/03/20 01:37		
1.1-Dichloroethane	<0.30 <0.27	ug/L ug/L	1.0	0.30	1		10/03/20 01:37		
1,2-Dichloroethane	<0.28	ū	1.0	0.27	1		10/03/20 01:37		
1,2-Dichloroethene	<0.24	ug/L	1.0	0.24			10/03/20 01:37		
		ug/L			1		10/03/20 01:37		
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1				
trans-1,2-Dichloroethene	<0.46	ug/L	1.5	0.46	1		10/03/20 01:37 10/03/20 01:37		
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1				
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/03/20 01:37		
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/03/20 01:37		
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/03/20 01:37		
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/03/20 01:37		
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/03/20 01:37		
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/03/20 01:37	108-20-3	



# **ANALYTICAL RESULTS**

Collected: 09/29/20 12:25 Received: 09/30/20 10:15 Matrix: Water

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-1W

Lab ID: 40215637001

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA	A 8260						
	Pace Anal	ytical Service	es - Green Ba	у					
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		10/03/20 01:37	100-41-4	
Hexachloro-1,3-butadiene	<1.5	ug/L	4.9	1.5	1		10/03/20 01:37	87-68-3	
sopropylbenzene (Cumene)	<1.7	ug/L	5.6	1.7	1		10/03/20 01:37	98-82-8	
o-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/03/20 01:37	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/03/20 01:37	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/03/20 01:37	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/03/20 01:37	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/03/20 01:37	103-65-1	
Styrene	<3.0	ug/L	10.0	3.0	1		10/03/20 01:37	100-42-5	
I,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/03/20 01:37	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/03/20 01:37	79-34-5	
Tetrachloroethene	< 0.33	ug/L	1.1	0.33	1		10/03/20 01:37	127-18-4	
Toluene	0.66J	ug/L	1.0	0.27	1		10/03/20 01:37	108-88-3	
1,2,3-Trichlorobenzene	<2.2	ug/L	7.4	2.2	1		10/03/20 01:37	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/03/20 01:37	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		10/03/20 01:37	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/03/20 01:37	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		10/03/20 01:37	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/03/20 01:37	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/03/20 01:37	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/03/20 01:37	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/03/20 01:37	108-67-8	
/inyl chloride	<0.17	ug/L	1.0	0.17	1		10/03/20 01:37	75-01-4	
n&p-Xylene	0.65J	ug/L	2.0	0.47	1		10/03/20 01:37	179601-23-1	
o-Xylene	0.39J	ug/L	1.0	0.26	1		10/03/20 01:37	95-47-6	
Surrogates									
1-Bromofluorobenzene (S)	96	%	70-130		1		10/03/20 01:37		
Dibromofluoromethane (S)	95	%	70-130		1		10/03/20 01:37	1868-53-7	
Гoluene-d8 (S)	100	%	70-130		1		10/03/20 01:37	2037-26-5	



Date: 10/08/2020 01:26 PM

# **ANALYTICAL RESULTS**

Project: 19M106.20 FINCANTIERI MARINETT

Sample: GP-3W	Lab ID:	40215637002	Collected	d: 09/29/20	14:25	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical	Method: EPA 8	081B Prepa	aration Meth	nod: EF	A Mod. 3510C			
		ytical Services							
Aldrin	<0.015	ug/L	0.051	0.015	1	10/02/20 14:53	10/05/20 18:04	309-00-2	
alpha-BHC	<0.0065	ug/L	0.022	0.0065	1	10/02/20 14:53	10/05/20 18:04		
beta-BHC	0.022J	ug/L	0.022	0.0003	1		10/05/20 18:04		
delta-BHC	< 0.013	ug/L	0.044	0.013	1		10/05/20 18:04		
gamma-BHC (Lindane)	<0.0065	ug/L	0.021	0.0065	1		10/05/20 18:04		
Chlordane (Technical)	<0.20	ug/L	0.68	0.20	1	10/02/20 14:53	10/05/20 18:04		
alpha-Chlordane	< 0.0059	ug/L	0.020	0.0059	1	10/02/20 14:53	10/05/20 18:04		
gamma-Chlordane	< 0.0069	ug/L	0.023	0.0069	1	10/02/20 14:53	10/05/20 18:04		
4,4'-DDD	<0.022	ug/L	0.072	0.022	1	10/02/20 14:53	10/05/20 18:04		
4,4'-DDE	<0.012	ug/L	0.040	0.012	1	10/02/20 14:53	10/05/20 18:04		
4,4'-DDT	<0.027	ug/L	0.090	0.012	1	10/02/20 14:53	10/05/20 18:04		
Dieldrin	<0.0091	ug/L	0.030	0.0091	1	10/02/20 14:53	10/05/20 18:04		
Endosulfan I	0.022J	ug/L	0.024	0.0073	1	10/02/20 14:53	10/05/20 18:04		
Endosulfan II	<0.012	ug/L	0.039	0.012	1		10/05/20 18:04		
Endosulfan sulfate	<0.014	ug/L	0.045	0.014	1	10/02/20 14:53	10/05/20 18:04		
Endrin	<0.020	ug/L	0.067	0.020	1	10/02/20 14:53	10/05/20 18:04		
Endrin aldehyde	<0.018	ug/L	0.059	0.018	1	10/02/20 14:53	10/05/20 18:04		
Endrin ketone	<0.025	ug/L	0.084	0.025	1	10/02/20 14:53	10/05/20 18:04		
Heptachlor	<0.0092	ug/L	0.031	0.0092	1	10/02/20 14:53	10/05/20 18:04		
Heptachlor epoxide	< 0.0071	ug/L	0.024	0.0071	1	10/02/20 14:53	10/05/20 18:04		
Methoxychlor	<0.17	ug/L	0.56	0.17	1	10/02/20 14:53	10/05/20 18:04		
Toxaphene	<0.44	ug/L	1.5	0.44	1	10/02/20 14:53	10/05/20 18:04		
Surrogates		~ <i>9</i> / =		0	·	. 0, 02, 20 0	. 0, 00, 20 . 0.0 .	000.002	
Tetrachloro-m-xylene (S)	99	%.	55-130		1	10/02/20 14:53	10/05/20 18:04	877-09-8	
Decachlorobiphenyl (S)	66	%.	36-145		1	10/02/20 14:53	10/05/20 18:04	2051-24-3	v1
8082 GCS PCB	Analytical	Method: EPA 8	082 Prepar	ation Metho	od: EPA	3510			
	Pace Anal	ytical Services	Green Bay	/					
PCB-1016 (Aroclor 1016)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:05	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17		_	
PCB-1232 (Aroclor 1232)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17			
PCB-1242 (Aroclor 1242)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17			
PCB-1248 (Aroclor 1248)	<0.11	ug/L	0.50	0.11	1		10/06/20 12:05		
PCB-1254 (Aroclor 1254)	<0.11	ug/L	0.50	0.11	1		10/06/20 12:05		
PCB-1260 (Aroclor 1260)	<0.11	ug/L	0.50	0.11	1		10/06/20 12:05		
PCB, Total	<0.11	ug/L	0.50	0.11	1		10/06/20 12:05		
Surrogates		-9-		****	•				
Tetrachloro-m-xylene (S)	69	%	39-127		1	10/05/20 14:17	10/06/20 12:05	877-09-8	
Decachlorobiphenyl (S)	26	%	15-121		1	10/05/20 14:17	10/06/20 12:05	2051-24-3	
6020 MET ICPMS	Analytical	Method: EPA 6	020 Prepar	ation Metho	od: EPA	3010			
	Pace Anal	ytical Services	Green Bay	/					
Arsenic	115	ug/L	5.0	1.4	5	10/02/20 07:11	10/06/20 18:35	7440-38-2	
Barium	708	ug/L	11.6	3.5	5	10/02/20 07:11	10/06/20 18:35		
Dallulli									



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-3W	Lab ID:	40215637002	Collected	d: 09/29/20	14:25	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical	Method: EPA 60	020 Prepa	ration Meth	od: EPA	3010			
	Pace Anal	ytical Services -	Green Ba	y					
Chromium	<5.1	ug/L	17.0	5.1	5	10/02/20 07:11	10/06/20 18:35	7440-47-3	D3
Copper	<9.5	ug/L	31.8	9.5	5	10/02/20 07:11	10/06/20 18:35		D3
Lead	3.7J	ug/L	5.0	1.2	5	10/02/20 07:11	10/06/20 18:35		D3
Selenium	<1.6	ug/L	5.3	1.6	5	10/02/20 07:11	10/06/20 18:35		D3
Silver	<0.64	ug/L	2.5	0.64	5	10/02/20 07:11	10/06/20 18:35	7440-22-4	D3
Zinc	<51.6	ug/L	172	51.6	5	10/02/20 07:11			D3
6020 MET ICPMS, Dissolved	Analytical	Method: EPA 60	020 Prepa	ration Meth	od: EPA	3010			
5020 III.2 1 101 III.0, 210001100		ytical Services			ou				
Arsenic, Dissolved	114	ug/L	5.0	1.4	5	10/02/20 07:05	10/06/20 20:37	7440-38-2	
Barium, Dissolved	694	ug/L	11.6	3.5	5	10/02/20 07:05	10/06/20 20:37	7440-39-3	
Cadmium, Dissolved	2.4J	ug/L	5.0	0.76	5	10/02/20 07:05	10/06/20 20:37	7440-43-9	D3
Chromium, Dissolved	<5.1	ug/L	17.0	5.1	5	10/02/20 07:05	10/06/20 20:37	7440-47-3	D3
Copper, Dissolved	<9.5	ug/L	31.8	9.5	5		10/06/20 20:37		D3
Lead, Dissolved	3.0J	ug/L	5.0	1.2	5	10/02/20 07:05	10/06/20 20:37	7439-92-1	D3
Selenium, Dissolved	3.2J	ug/L	5.3	1.6	5		10/06/20 20:37		D3
Silver, Dissolved	1.3J	ug/L	2.5	0.64	5		10/06/20 20:37		D3
Zinc, Dissolved	<51.6	ug/L	172	51.6	5		10/06/20 20:37		D3
7470 Mercury	Analytical	Method: EPA 74	470 Prepa	ration Meth	od: EPA	7470			
,		ytical Services -							
Mercury	<0.066	ug/L	0.20	0.066	1	10/05/20 10:35	10/06/20 09:47	7439-97-6	
7470 Mercury, Dissolved	Analytical	Method: EPA 74	470 Prepa	ration Meth	od: EPA	7470			
	Pace Anal	ytical Services -	Green Ba	y					
Mercury, Dissolved	<0.066	ug/L	0.20	0.066	1	10/05/20 10:35	10/06/20 10:57	7439-97-6	
8270 MSSV PAH by HVI	Analytical	Method: EPA 82	270 by HVI	Preparation	n Meth	od: EPA 3510			
·	Pace Anal	ytical Services -	Green Ba	y					
1-Methylnaphthalene	1.1	ug/L	0.028	0.0055	1	10/01/20 08:50	10/01/20 18:15	90-12-0	
2-Methylnaphthalene	2.4	ug/L	0.023	0.0046	1	10/01/20 08:50	10/01/20 18:15	91-57-6	
Acenaphthene	0.060	ug/L	0.028	0.0057	1	10/01/20 08:50	10/01/20 18:15	83-32-9	
Acenaphthylene	< 0.0047	ug/L	0.023	0.0047	1	10/01/20 08:50	10/01/20 18:15	208-96-8	
Anthracene	0.018J	ug/L	0.049	0.0098	1	10/01/20 08:50	10/01/20 18:15	120-12-7	
Benzo(a)anthracene	<0.0071	ug/L	0.035	0.0071	1	10/01/20 08:50	10/01/20 18:15		
Benzo(a)pyrene	<0.0098	ug/L	0.049	0.0098	1	10/01/20 08:50	10/01/20 18:15		
Benzo(b)fluoranthene	<0.0054	ug/L	0.027	0.0054	1	10/01/20 08:50	10/01/20 18:15		
Benzo(g,h,i)perylene	<0.0063	ug/L	0.032	0.0063	1		10/01/20 18:15		
Benzo(k)fluoranthene	<0.0071	ug/L	0.035	0.0071	1				
Chrysene	<0.012	ug/L	0.061	0.012	1		10/01/20 18:15		
Dibenz(a,h)anthracene	<0.0094	ug/L	0.047	0.0094	1	10/01/20 08:50	10/01/20 18:15		
– (~,, ~		-							
Fluoranthene	0.033.1	UG/I	(),()50	().010	1	10/01/20 08·50	1()/()1/2() 18:15	206-44-0	
Fluoranthene Fluorene	0.033J 0.066	ug/L ug/L	0.050 0.037	0.010 0.0074	1 1	10/01/20 08:50 10/01/20 08:50	10/01/20 18:15 10/01/20 18:15		



Project: 19M106.20 FINCANTIERI MARINETT

Date: 10/08/2020 01:26 PM

Sample: GP-3W	Lab ID:	40215637002	Collected	d: 09/29/20	14:25	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
8270 MSSV PAH by HVI	Analytical I	Method: EPA 8	270 by HVI	Preparation	n Meth	od: EPA 3510			
•		tical Services	-						
Naphthalene	1.9	ug/L	0.086	0.017	1	10/01/20 08:50	10/01/20 18:15	01-20-3	
Phenanthrene	0.12	ug/L	0.064	0.017	1	10/01/20 08:50	10/01/20 18:15		
Pyrene	0.035J	ug/L ug/L	0.036	0.0071	1		10/01/20 18:15		
Surrogates	0.0330	ug/L	0.000	0.0071	'	10/01/20 00:50	10/01/20 10.13	125 00 0	
2-Fluorobiphenyl (S)	57	%	39-120		1	10/01/20 08:50	10/01/20 18:15	321-60-8	
Terphenyl-d14 (S)	67	%	10-159		1	10/01/20 08:50	10/01/20 18:15		
8260 MSV	Analytical I	Method: EPA 8	260						
	•	tical Services		/					
Benzene	2.5	ug/L	1.0	0.25	1		10/03/20 01:58	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/03/20 01:58	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/03/20 01:58	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/03/20 01:58	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/03/20 01:58	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/03/20 01:58	74-83-9	
n-Butylbenzene	5.3	ug/L	2.4	0.71	1		10/03/20 01:58	104-51-8	
sec-Butylbenzene	1.6J	ug/L	5.0	0.85	1		10/03/20 01:58	135-98-8	
tert-Butylbenzene	1.3	ug/L	1.0	0.30	1		10/03/20 01:58	98-06-6	
Carbon tetrachloride	<1.1	ug/L	3.6	1.1	1		10/03/20 01:58	56-23-5	
Chlorobenzene	0.74J	ug/L	2.4	0.71	1		10/03/20 01:58	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/03/20 01:58	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/03/20 01:58	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/03/20 01:58	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/03/20 01:58	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/03/20 01:58	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/03/20 01:58	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/03/20 01:58	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/03/20 01:58	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/03/20 01:58	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/03/20 01:58	95-50-1	
1,3-Dichlorobenzene	< 0.63	ug/L	2.1	0.63	1		10/03/20 01:58	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/03/20 01:58	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/03/20 01:58	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		10/03/20 01:58	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/03/20 01:58	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		10/03/20 01:58	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		10/03/20 01:58	156-59-2	
trans-1,2-Dichloroethene	<0.46	ug/L	1.5	0.46	1		10/03/20 01:58	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/03/20 01:58	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/03/20 01:58	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/03/20 01:58	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/03/20 01:58	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/03/20 01:58	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/03/20 01:58	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/03/20 01:58	108-20-3	



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-3W Lab ID: 40215637002 Collected: 09/29/20 14:25 Received: 09/30/20 10:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF_	Prepared	Analyzed	CAS No.	Qua
3260 MSV	Analytical	Method: EPA	\ 8260						
	Pace Anal	ytical Service	es - Green Ba	у					
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		10/03/20 01:58	100-41-4	
Hexachloro-1,3-butadiene	<1.5	ug/L	4.9	1.5	1		10/03/20 01:58	87-68-3	
sopropylbenzene (Cumene)	<1.7	ug/L	5.6	1.7	1		10/03/20 01:58	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/03/20 01:58	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/03/20 01:58	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/03/20 01:58	1634-04-4	
Naphthalene	2.9J	ug/L	5.0	1.2	1		10/03/20 01:58	91-20-3	
r-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/03/20 01:58	103-65-1	
Styrene	<3.0	ug/L	10.0	3.0	1		10/03/20 01:58	100-42-5	
,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/03/20 01:58	630-20-6	
,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/03/20 01:58	79-34-5	
etrachloroethene	< 0.33	ug/L	1.1	0.33	1		10/03/20 01:58	127-18-4	
oluene	<0.27	ug/L	1.0	0.27	1		10/03/20 01:58	108-88-3	
,2,3-Trichlorobenzene	<2.2	ug/L	7.4	2.2	1		10/03/20 01:58	87-61-6	
,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/03/20 01:58	120-82-1	
,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		10/03/20 01:58	71-55-6	
,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/03/20 01:58	79-00-5	
richloroethene	<0.26	ug/L	1.0	0.26	1		10/03/20 01:58	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/03/20 01:58	75-69-4	
,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/03/20 01:58	96-18-4	
,2,4-Trimethylbenzene	3.4	ug/L	2.8	0.84	1		10/03/20 01:58	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/03/20 01:58	108-67-8	
/inyl chloride	<0.17	ug/L	1.0	0.17	1		10/03/20 01:58	75-01-4	
n&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/03/20 01:58	179601-23-1	
-Xylene	<0.26	ug/L	1.0	0.26	1		10/03/20 01:58	95-47-6	
Surrogates		-							
I-Bromofluorobenzene (S)	97	%	70-130		1		10/03/20 01:58	460-00-4	
Dibromofluoromethane (S)	93	%	70-130		1		10/03/20 01:58	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/03/20 01:58	2037-26-5	



Project: 19M106.20 FINCANTIERI MARINETT

Date: 10/08/2020 01:26 PM

Sample: GP-6W	l ah ID-	40215637003	Collected:	U0/20/20	10.45	Received: 09/	30/20 10·15 M	atrix: Water	
Sample. Gr-6vv	Lab ID.	40213037003	Collected.	09/29/20	10.45	Received. 09/	30/20 10.15 IVI	allix. VValei	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
8081B GCS Pesticides	Analytica	l Method: EPA 8	081B Prepa	ration Met	hod: EF	PA Mod. 3510C			
		alytical Services							
Aldrin	<0.016	ug/L	0.053	0.016	1	10/02/20 14:53	10/05/20 18:23	309-00-2	
alpha-BHC	< 0.0067	ug/L	0.022	0.0067	1	10/02/20 14:53	10/05/20 18:23		
beta-BHC	<0.011	ug/L	0.036	0.0007	1	10/02/20 14:53	10/05/20 18:23		
delta-BHC	<0.014	ug/L	0.046	0.014	1	10/02/20 14:53	10/05/20 18:23		
gamma-BHC (Lindane)	<0.0066	ug/L	0.022	0.0066	1	10/02/20 14:53	10/05/20 18:23		
Chlordane (Technical)	<0.21	ug/L	0.70	0.21	1	10/02/20 14:53	10/05/20 18:23		
alpha-Chlordane	<0.0060	ug/L	0.020	0.0060	1	10/02/20 14:53			
gamma-Chlordane	<0.0071	ug/L	0.024	0.0071	1	10/02/20 14:53			
4,4'-DDD	<0.022	ug/L	0.075	0.022	1	10/02/20 14:53	10/05/20 18:23		
4,4'-DDE	<0.012	ug/L	0.073	0.022	1	10/02/20 14:53	10/05/20 18:23		
4,4'-DDT	<0.012	ug/L	0.041	0.012	1	10/02/20 14:53	10/05/20 18:23		
Dieldrin	<0.0094	ug/L	0.033	0.0094	1	10/02/20 14:53			
Endosulfan I	<0.0094	ug/L ug/L	0.031	0.0094	1	10/02/20 14:53			
Endosulfan II	<0.012	ug/L	0.023	0.0073	1	10/02/20 14:53	10/05/20 18:23		
Endosulfan sulfate	<0.012	ug/L ug/L	0.040	0.012	1	10/02/20 14:53	10/05/20 18:23		
Endrin	<0.014	ug/L ug/L	0.047	0.014	1	10/02/20 14:53	10/05/20 18:23		
	<0.021	-	0.069	0.021	1	10/02/20 14:53			
Endrin aldehyde Endrin ketone	<0.018	ug/L	0.087	0.016	1	10/02/20 14:53			
	<0.026	ug/L	0.032	0.026		10/02/20 14:53	10/05/20 18:23		
Heptachlor	<0.0093	ug/L	0.032	0.0093	1 1	10/02/20 14:53	10/05/20 18:23		
Heptachlor epoxide		ug/L							
Methoxychlor	<0.17 <0.45	ug/L	0.57 1.5	0.17	1	10/02/20 14:53	10/05/20 18:23		
Toxaphene Surrogates	<0.45	ug/L	1.5	0.45	1	10/02/20 14:53	10/05/20 18:23	0001-35-2	
Tetrachloro-m-xylene (S)	99	%.	55-130		1	10/02/20 14:53	10/05/20 18:23	877-09-8	
Decachlorobiphenyl (S)	83	%.	36-145		1	10/02/20 14:53	10/05/20 18:23	2051-24-3	v1
8082 GCS PCB	Analytica	l Method: EPA 8	082 Prepara	ation Metho	od: EPA	3510			
	Pace Ana	alytical Services	- Green Bay						
PCB-1016 (Aroclor 1016)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:23	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:23	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:23	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:23	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:23	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:23	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.11	ug/L	0.50	0.11	1		10/06/20 12:23		
PCB, Total	<0.11	ug/L	0.50	0.11	1		10/06/20 12:23		
Surrogates Totrachloro m vulono (S)	00	%	20 127		1	10/05/20 14:17	10/06/20 12:22	977 00 0	
Tetrachloro-m-xylene (S) Decachlorobiphenyl (S)	89 31	%	39-127 15-121		1 1		10/06/20 12:23 10/06/20 12:23		
6020 MET ICPMS		I Method: EPA 6		ation Moth	•				
OUZU WET ICHWIS	•	i Method: EPA 6 alytical Services	•	uon weln	Ju. EPA	13010			
Arsenic	168	ug/L	5.0	1.4	5	10/02/20 07:11	10/06/20 19:16	7440-38-2	
Barium	1850	ug/L	11.6	3.5	5	10/02/20 07:11	10/06/20 19:16		
Cadmium	<0.76	-	5.0	0.76	5	10/02/20 07:11	10/06/20 19:16		D3
Caumum	<0.76	ug/L	5.0	0.76	3	10/02/20 07:11	10/00/20 19:16	1440-43-9	D3



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-6W	Lab ID:	40215637003	Collected	d: 09/29/20	10:45	Received: 09/	30/20 10:15 M	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
6020 MET ICPMS	Analytical	Method: EPA 60	020 Prepa	ration Meth	od: EPA	A 3010			
	Pace Anal	ytical Services -	Green Ba	y					
Chromium	<5.1	ug/L	17.0	5.1	5	10/02/20 07:11	10/06/20 19:16	7440-47-3	D3
Copper	<9.5	ug/L	31.8	9.5	5	10/02/20 07:11	10/06/20 19:16		D3
Lead	<1.2	ug/L	5.0	1.2	5	10/02/20 07:11	10/06/20 19:16		D3
Selenium	<1.6	ug/L	5.3	1.6	5	10/02/20 07:11	10/06/20 19:16		D3
Silver	<0.64	ug/L	2.5	0.64	5	10/02/20 07:11			D3
Zinc	<51.6	ug/L	172	51.6	5	10/02/20 07:11			D3
6020 MET ICPMS, Dissolved	Analytical	Method: EPA 60	120 Prena	ration Meth	nd: EPA	3010			
0020 MET ICFMS, DISSOIVEU	-	ytical Services			ou. Li A	(3010			
Arsenic, Dissolved	169	ug/L	5.0	1.4	5	10/02/20 07:05	10/06/20 21:04	7440-38-2	D9
Barium, Dissolved	1880	ug/L	11.6	3.5	5		10/06/20 21:04		D9
Cadmium, Dissolved	<0.76	ug/L	5.0	0.76	5		10/06/20 21:04		D3
Chromium, Dissolved	<5.1	ug/L	17.0	5.1	5		10/06/20 21:04		D3
Copper, Dissolved	<9.5	ug/L	31.8	9.5	5		10/06/20 21:04		D3
Lead, Dissolved	<1.2	ug/L	5.0	1.2	5		10/06/20 21:04		D3
Selenium, Dissolved	<1.6	ug/L	5.3	1.6	5		10/06/20 21:04		D3
Silver, Dissolved	<0.64	ug/L	2.5	0.64	5		10/06/20 21:04		D3
Zinc, Dissolved	<51.6	ug/L	172	51.6	5		10/06/20 21:04		D3
7470 Mercury	Analytical	Method: EPA 74	470 Prepa	ration Meth	nd: FPA	7470			
	-	ytical Services			ou ,				
Mercury	<0.066	ug/L	0.20	0.066	1	10/05/20 10:35	10/06/20 09:49	7439-97-6	
7470 Mercury, Dissolved	Analytical	Method: EPA 74	470 Prepa	ration Metho	od: EPA	A 7470			
. I o moroury, Discorred	-	ytical Services			ou				
Mercury, Dissolved	<0.066	ug/L	0.20	0.066	1	10/05/20 10:35	10/06/20 10:59	7439-97-6	
8270 MSSV PAH by HVI	Analytical	Method: EPA 82	270 by HVI	Preparatio	n Meth	od: EPA 3510			
	-	ytical Services	-						
1-Methylnaphthalene	0.0096J	ug/L	0.028	0.0057	1	10/01/20 08:50	10/02/20 09:45	90-12-0	
2-Methylnaphthalene	<0.0047	ug/L	0.024	0.0047	1	10/01/20 08:50			
Acenaphthene	0.010J	ug/L	0.029	0.0058	1	10/01/20 08:50	10/02/20 09:45		
Acenaphthylene	<0.0048	ug/L	0.024	0.0048	1		10/02/20 09:45		
Anthracene	<0.010	ug/L	0.050	0.010	1	10/01/20 08:50	10/02/20 09:45		
Benzo(a)anthracene	<0.0073	ug/L	0.036	0.0073	1	10/01/20 08:50	10/02/20 09:45		
Benzo(a)pyrene	<0.010	ug/L	0.051	0.010	1	10/01/20 08:50	10/02/20 09:45		
		ug/L ug/L	0.028	0.0055	1	10/01/20 08:50	10/02/20 09:45		
	<(1.0055	~ 9/ <b>-</b>	0.020	0.0000					
Benzo(b)fluoranthene	<0.0055 <0.0065	-	0.033	0.0065	1	10/01/20 08 50	10/02/20 09 45	191-24-2	
Benzo(b)fluoranthene Benzo(g,h,i)perylene	<0.0065	ug/L	0.033	0.0065 0.0073	1 1	10/01/20 08:50 10/01/20 08:50	10/02/20 09:45 10/02/20 09:45		
Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene	<0.0065 <0.0073	ug/L ug/L	0.036	0.0073	1	10/01/20 08:50	10/02/20 09:45	207-08-9	
Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene	<0.0065 <0.0073 <0.013	ug/L ug/L ug/L	0.036 0.063	0.0073 0.013	1 1	10/01/20 08:50 10/01/20 08:50	10/02/20 09:45 10/02/20 09:45	207-08-9 218-01-9	
Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene	<0.0065 <0.0073 <0.013 <0.0096	ug/L ug/L ug/L ug/L	0.036 0.063 0.048	0.0073 0.013 0.0096	1 1 1	10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 09:45 10/02/20 09:45 10/02/20 09:45	207-08-9 218-01-9 53-70-3	
Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene Fluoranthene Fluorene	<0.0065 <0.0073 <0.013	ug/L ug/L ug/L	0.036 0.063	0.0073 0.013	1 1	10/01/20 08:50 10/01/20 08:50	10/02/20 09:45 10/02/20 09:45	207-08-9 218-01-9 53-70-3 206-44-0	



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-6W	Lab ID:	40215637003	Collecte	d: 09/29/20	10:45	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
8270 MSSV PAH by HVI	Analytical	Method: EPA 82	270 by HVI	Preparation	n Meth	od: EPA 3510			
·	-	lytical Services -	-						
Naphthalene	0.021J	ug/L	0.088	0.018	1	10/01/20 08:50	10/02/20 09:45	91-20-3	
Phenanthrene	<0.013	ug/L	0.066	0.013	1	10/01/20 08:50	10/02/20 09:45		
Pyrene	0.0093J	ug/L	0.037	0.0074	1	10/01/20 08:50	10/02/20 09:45		
Surrogates	0.0000	ug/L	0.007	0.007 1	•	10/01/20 00:00	10/02/20 00.10	120 00 0	
2-Fluorobiphenyl (S)	57	%	39-120		1	10/01/20 08:50	10/02/20 09:45	321-60-8	
Terphenyl-d14 (S)	88	%	10-159		1	10/01/20 08:50	10/02/20 09:45	1718-51-0	
8260 MSV	Analytical	Method: EPA 82	260						
0200 me v	•	lytical Services		у					
Benzene	<0.25	ug/L	1.0	0.25	1		10/03/20 02:19	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/03/20 02:19	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/03/20 02:19	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/03/20 02:19	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/03/20 02:19	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/03/20 02:19	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/03/20 02:19	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/03/20 02:19	135-98-8	
ert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/03/20 02:19		
Carbon tetrachloride	<1.1	ug/L	3.6	1.1	1		10/03/20 02:19		
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/03/20 02:19		
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/03/20 02:19		
Chloroform	<1.3	ug/L	5.0	1.3	1		10/03/20 02:19		
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/03/20 02:19	74-87-3	
2-Chlorotoluene	< 0.93	ug/L	5.0	0.93	1		10/03/20 02:19		
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/03/20 02:19		
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/03/20 02:19		
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/03/20 02:19		
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/03/20 02:19		
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/03/20 02:19		
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/03/20 02:19		
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/03/20 02:19		
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/03/20 02:19		
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/03/20 02:19		
1.1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		10/03/20 02:19		
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/03/20 02:19		
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		10/03/20 02:19		
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		10/03/20 02:19		
rans-1,2-Dichloroethene	<0.46	ug/L	1.5	0.46	1		10/03/20 02:19		
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/03/20 02:19		
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/03/20 02:19		
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/03/20 02:19		
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/03/20 02:19		
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/03/20 02:19		
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/03/20 02:19		
Diisopropyl ether	<1.9	ug/L ug/L	6.3	1.9	1		10/03/20 02:19		



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-6W Lab ID: 40215637003 Collected: 09/29/20 10:45 Received: 09/30/20 10:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
3260 MSV	Analytical	Method: EPA	A 8260						
	Pace Anal	ytical Service	es - Green Ba	у					
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		10/03/20 02:19	100-41-4	
Hexachloro-1,3-butadiene	<1.5	ug/L	4.9	1.5	1		10/03/20 02:19		
sopropylbenzene (Cumene)	<1.7	ug/L	5.6	1.7	1		10/03/20 02:19	98-82-8	
o-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/03/20 02:19	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/03/20 02:19	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/03/20 02:19	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/03/20 02:19	91-20-3	
- n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/03/20 02:19	103-65-1	
Styrene	<3.0	ug/L	10.0	3.0	1		10/03/20 02:19	100-42-5	
,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/03/20 02:19	630-20-6	
,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/03/20 02:19	79-34-5	
etrachloroethene	< 0.33	ug/L	1.1	0.33	1		10/03/20 02:19	127-18-4	
oluene	<0.27	ug/L	1.0	0.27	1		10/03/20 02:19	108-88-3	
,2,3-Trichlorobenzene	<2.2	ug/L	7.4	2.2	1		10/03/20 02:19	87-61-6	
,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/03/20 02:19	120-82-1	
,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		10/03/20 02:19	71-55-6	
,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/03/20 02:19	79-00-5	
richloroethene	<0.26	ug/L	1.0	0.26	1		10/03/20 02:19	79-01-6	
richlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/03/20 02:19	75-69-4	
,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/03/20 02:19	96-18-4	
,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/03/20 02:19	95-63-6	
,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/03/20 02:19	108-67-8	
/inyl chloride	<0.17	ug/L	1.0	0.17	1		10/03/20 02:19	75-01-4	
n&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/03/20 02:19	179601-23-1	
-Xylene	<0.26	ug/L	1.0	0.26	1		10/03/20 02:19	95-47-6	
Surrogates									
-Bromofluorobenzene (S)	99	%	70-130		1		10/03/20 02:19	460-00-4	
Dibromofluoromethane (S)	94	%	70-130		1		10/03/20 02:19	1868-53-7	
oluene-d8 (S)	99	%	70-130		1		10/03/20 02:19	2037-26-5	



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-4W	Lab ID:	40215637004	Collected:	09/29/20	08:55	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8081B GCS Pesticides	Analytical	Method: EPA 8	081B Prepai	ration Meth	nod: EP	A Mod. 3510C			
		lytical Services							
Aldrin	<0.015	ug/L	0.051	0.015	1	10/02/20 14:53	10/05/20 18:41	309-00-2	
alpha-BHC	<0.0064	ug/L	0.021	0.0064	1	10/02/20 14:53	10/05/20 18:41		
beta-BHC	<0.010	ug/L	0.035	0.010	1	10/02/20 14:53	10/05/20 18:41		
delta-BHC	<0.013	ug/L	0.044	0.013	1	10/02/20 14:53	10/05/20 18:41		
gamma-BHC (Lindane)	<0.0064	ug/L	0.021	0.0064	1	10/02/20 14:53	10/05/20 18:41		
Chlordane (Technical)	<0.20	ug/L	0.68	0.20	1	10/02/20 14:53	10/05/20 18:41		
alpha-Chlordane	<0.0058	ug/L	0.019	0.0058	1	10/02/20 14:53	10/05/20 18:41		
gamma-Chlordane	<0.0068	ug/L	0.023	0.0068	1	10/02/20 14:53	10/05/20 18:41		
4,4'-DDD	<0.022	ug/L	0.072	0.022	1	10/02/20 14:53	10/05/20 18:41		
4,4'-DDE	<0.012	ug/L	0.039	0.012	1	10/02/20 14:53	10/05/20 18:41		
4,4'-DDT	<0.027	ug/L	0.089	0.027	1	10/02/20 14:53	10/05/20 18:41		
Dieldrin	<0.0090	ug/L	0.030	0.0090	1	10/02/20 14:53	10/05/20 18:41		
Endosulfan I	<0.0072	ug/L	0.024	0.0072	1	10/02/20 14:53	10/05/20 18:41		
Endosulfan II	<0.012	ug/L	0.038	0.012	1	10/02/20 14:53	10/05/20 18:41		
Endosulfan sulfate	<0.013	ug/L	0.045	0.013	1	10/02/20 14:53	10/05/20 18:41		
Endrin	<0.020	ug/L	0.066	0.020	1	10/02/20 14:53	10/05/20 18:41		
Endrin aldehyde	<0.018	ug/L	0.059	0.018	1	10/02/20 14:53	10/05/20 18:41		
Endrin ketone	<0.025	ug/L	0.083	0.025	1	10/02/20 14:53	10/05/20 18:41		
Heptachlor	<0.0091	ug/L	0.030	0.0091	1	10/02/20 14:53	10/05/20 18:41		
Heptachlor epoxide	<0.0071	ug/L	0.024	0.0071	1	10/02/20 14:53	10/05/20 18:41		
Methoxychlor	<0.17	ug/L	0.55	0.17	1	10/02/20 14:53	10/05/20 18:41		
Toxaphene	<0.44	ug/L	1.5	0.44	1	10/02/20 14:53	10/05/20 18:41		
Surrogates (C)	404	0/	FF 400			40/00/00 44 50	40/05/00 40 44	077 00 0	
Tetrachloro-m-xylene (S)	101	%.	55-130		1	10/02/20 14:53	10/05/20 18:41		
Decachlorobiphenyl (S)	98	%.	36-145		1	10/02/20 14:53	10/05/20 18:41	2051-24-3	v1
8082 GCS PCB		Method: EPA 8		ition Metho	d: EPA	3510			
	Pace Ana	lytical Services	- Green Bay						
PCB-1016 (Aroclor 1016)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:41	12674-11-2	
PCB-1221 (Aroclor 1221)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:41	11104-28-2	
PCB-1232 (Aroclor 1232)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:41	11141-16-5	
PCB-1242 (Aroclor 1242)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:41	53469-21-9	
PCB-1248 (Aroclor 1248)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:41	12672-29-6	
PCB-1254 (Aroclor 1254)	<0.11	ug/L	0.50	0.11	1	10/05/20 14:17	10/06/20 12:41	11097-69-1	
PCB-1260 (Aroclor 1260)	<0.11	ug/L	0.50	0.11	1		10/06/20 12:41		
PCB, Total Surrogates	<0.11	ug/L	0.50	0.11	1		10/06/20 12:41		
Tetrachloro-m-xylene (S)	85	%	39-127		1	10/05/20 14:17	10/06/20 12:41	877-09-8	
Decachlorobiphenyl (S)	33	%	15-121		1		10/06/20 12:41		
6020 MET ICPMS	Analytical	Method: EPA 6	020 Prepara	ition Metho	d: EPA	3010			
	Pace Ana	lytical Services	- Green Bay						
Arsenic	8.7	ug/L	5.0	1.4	5	10/02/20 07:11	10/06/20 19:22	7440-38-2	
Barium	102	ug/L	11.6	3.5	5	10/02/20 07:11	10/06/20 19:22		
Cadmium	<0.76	ug/L	5.0	0.76	5	10/02/20 07:11			D3



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-4W	Lab ID:	40215637004	Collected	d: 09/29/20	08:55	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical	Method: EPA 60	020 Prepar	ation Metho	od: EPA	3010			
	Pace Ana	lytical Services -	Green Bay	/					
Chromium	<5.1	ug/L	17.0	5.1	5	10/02/20 07:11	10/06/20 19:22	7440-47-3	D3
Copper	<9.5	ug/L	31.8	9.5	5	10/02/20 07:11	10/06/20 19:22		D3
Lead	<1.2	ug/L	5.0	1.2	5	10/02/20 07:11	10/06/20 19:22		D3
Selenium	<1.6	ug/L	5.3	1.6	5	10/02/20 07:11	10/06/20 19:22	7782-49-2	D3
Silver	<0.64	ug/L	2.5	0.64	5	10/02/20 07:11	10/06/20 19:22	7440-22-4	D3
Zinc	281	ug/L	172	51.6	5	10/02/20 07:11	10/06/20 19:22	7440-66-6	
6020 MET ICPMS, Dissolved	Analytical	Method: EPA 60	020 Prepar	ation Metho	od: EPA	3010			
	Pace Ana	lytical Services -	Green Bay	/					
Arsenic, Dissolved	9.9	ug/L	5.0	1.4	5	10/02/20 07:05	10/06/20 21:11	7440-38-2	D9
Barium, Dissolved	116	ug/L	11.6	3.5	5	10/02/20 07:05	10/06/20 21:11	7440-39-3	D9
Cadmium, Dissolved	<0.76	ug/L	5.0	0.76	5	10/02/20 07:05	10/06/20 21:11	7440-43-9	D3
Chromium, Dissolved	<5.1	ug/L	17.0	5.1	5	10/02/20 07:05	10/06/20 21:11	7440-47-3	D3
Copper, Dissolved	<9.5	ug/L	31.8	9.5	5	10/02/20 07:05	10/06/20 21:11	7440-50-8	D3
Lead, Dissolved	<1.2	ug/L	5.0	1.2	5	10/02/20 07:05	10/06/20 21:11	7439-92-1	D3
Selenium, Dissolved	<1.6	ug/L	5.3	1.6	5	10/02/20 07:05	10/06/20 21:11	7782-49-2	D3
Silver, Dissolved	<0.64	ug/L	2.5	0.64	5	10/02/20 07:05	10/06/20 21:11	7440-22-4	D3
Zinc, Dissolved	241	ug/L	172	51.6	5	10/02/20 07:05	10/06/20 21:11	7440-66-6	
7470 Mercury	-	Method: EPA 74 lytical Services			od: EPA	7470			
Mercury	<0.066	ug/L	0.20	0.066	1	10/05/20 10:35	10/06/20 09:56	7439-97-6	
7470 Mercury, Dissolved		Method: EPA 74			od: EPA	7470			
Mercury, Dissolved	<0.066	ug/L	0.20	0.066	1	10/05/20 10:35	10/06/20 11:02	7439-97-6	
8270 MSSV PAH by HVI	Analytical	Mothod: EDA 9	2701 111/1						
		MELITOU. LEA 02	270 by HVI	Preparatio	n Metho	od: EPA 3510			
•		lytical Services	-		n Metho	od: EPA 3510			
·			-		n Metho	od: EPA 3510 10/01/20 08:50	10/02/20 10:03	90-12-0	
1-Methylnaphthalene	Pace Ana	lytical Services	Green Bay	/			10/02/20 10:03 10/02/20 10:03		
1-Methylnaphthalene 2-Methylnaphthalene	Pace Ana <0.0057	lytical Services - ug/L	Green Bay 0.028	0.0057	1	10/01/20 08:50		91-57-6	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene	Pace Ana <0.0057 0.0051J	lytical Services - ug/L ug/L	0.028 0.024	0.0057 0.0047	1 1	10/01/20 08:50 10/01/20 08:50	10/02/20 10:03	91-57-6 83-32-9	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene	Pace Ana <0.0057 0.0051J <0.0058	lytical Services - ug/L ug/L ug/L ug/L ug/L	0.028 0.024 0.029	0.0057 0.0047 0.0058	1 1 1	10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:03 10/02/20 10:03	91-57-6 83-32-9 208-96-8	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene	Pace Ana <0.0057 0.0051J <0.0058 <0.0048	lytical Services - ug/L ug/L ug/L	0.028 0.024 0.029 0.024	0.0057 0.0047 0.0058 0.0048	1 1 1	10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:03 10/02/20 10:03 10/02/20 10:03	91-57-6 83-32-9 208-96-8 120-12-7	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene	<pre>Pace Ana &lt;0.0057 0.0051J &lt;0.0058 &lt;0.0048 &lt;0.010</pre>	lytical Services - ug/L ug/L ug/L ug/L ug/L	0.028 0.024 0.029 0.024 0.050	0.0057 0.0047 0.0058 0.0048 0.010	1 1 1 1	10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03	91-57-6 83-32-9 208-96-8 120-12-7 56-55-3	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene	<pre>Pace Ana &lt;0.0057 0.0051J &lt;0.0058 &lt;0.0048 &lt;0.010 &lt;0.0073</pre>	lytical Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	0.028 0.024 0.029 0.024 0.050 0.036	0.0057 0.0047 0.0058 0.0048 0.010 0.0073	1 1 1 1 1	10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03	91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene	Pace Ana <0.0057 0.0051J <0.0058 <0.0048 <0.010 <0.0073 <0.010	lytical Services - ug/L ug/L ug/L ug/L ug/L ug/L	0.028 0.024 0.029 0.024 0.050 0.036 0.051	0.0057 0.0047 0.0058 0.0048 0.010 0.0073 0.010	1 1 1 1 1	10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03	91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene	Pace Ana <0.0057 0.0051J <0.0058 <0.0048 <0.010 <0.0073 <0.010 <0.0055	lytical Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	0.028 0.024 0.029 0.024 0.050 0.036 0.051 0.028	0.0057 0.0047 0.0058 0.0048 0.010 0.0073 0.010 0.0055	1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03	91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene	Pace Ana <0.0057 0.0051J <0.0058 <0.0048 <0.010 <0.0073 <0.010 <0.0055 <0.0065	lytical Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	0.028 0.024 0.029 0.024 0.050 0.036 0.051 0.028 0.033	0.0057 0.0047 0.0058 0.0048 0.010 0.0073 0.010 0.0055 0.0065	1 1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03	91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene	Pace Ana <0.0057 0.0051J <0.0058 <0.0048 <0.010 <0.0073 <0.0015 <0.0065 <0.0065 <0.0073 <0.013	lytical Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	0.028 0.024 0.029 0.024 0.050 0.036 0.051 0.028 0.033 0.036 0.063	0.0057 0.0047 0.0058 0.0048 0.010 0.0073 0.010 0.0055 0.0065 0.0073 0.013	1 1 1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50	10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03	91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 218-01-9	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene	Pace Ana <0.0057 0.0051J <0.0058 <0.0048 <0.010 <0.0073 <0.010 <0.0055 <0.0065 <0.0073 <0.013 <0.0096	lytical Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	0.028 0.024 0.029 0.024 0.050 0.036 0.051 0.028 0.033 0.036 0.063 0.048	0.0057 0.0047 0.0058 0.0048 0.010 0.0073 0.010 0.0055 0.0065 0.0073 0.013	1 1 1 1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50	10/02/20 10:03 10/02/20 10:03	91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 218-01-9 53-70-3	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene Fluoranthene Fluorene	Pace Ana <0.0057 0.0051J <0.0058 <0.0048 <0.010 <0.0073 <0.0015 <0.0065 <0.0065 <0.0073 <0.013	lytical Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	0.028 0.024 0.029 0.024 0.050 0.036 0.051 0.028 0.033 0.036 0.063	0.0057 0.0047 0.0058 0.0048 0.010 0.0073 0.010 0.0055 0.0065 0.0073 0.013	1 1 1 1 1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50	10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03 10/02/20 10:03	91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 218-01-9 53-70-3 206-44-0	



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-4W	Lab ID:	40215637004	Collecte	d: 09/29/20	08:55	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
8270 MSSV PAH by HVI	Analytical	Method: EPA 8	270 by HVI	Preparation	n Meth	od: EPA 3510			
•	Pace Anal	ytical Services	- Green Ba	y					
Nanhthalana	۵۰ ۵۱۵	ua/l	0.000	0.019	4	10/01/20 09:50	10/02/20 10:02	01 20 2	
Naphthalene Dhananthrana	<0.018 <0.013	ug/L	0.088	0.018 0.013	1 1	10/01/20 08:50	10/02/20 10:03		
Phenanthrene Pyrene	<0.013 <0.0074	ug/L	0.066 0.037	0.013	1	10/01/20 08:50	10/02/20 10:03 10/02/20 10:03		
Surrogates	<0.0074	ug/L	0.037	0.0074	1	10/01/20 08:50	10/02/20 10.03	129-00-0	
2-Fluorobiphenyl (S)	63	%	39-120		1	10/01/20 08:50	10/02/20 10:03	321-60-8	
Terphenyl-d14 (S)	69	%	10-159		1	10/01/20 08:50	10/02/20 10:03		
8260 MSV	Analytical	Method: EPA 8	260						
0200 INO V	•	ytical Services		V					
		•							
Benzene	<0.25	ug/L	1.0	0.25	1		10/03/20 02:41		
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/03/20 02:41		
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/03/20 02:41		
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/03/20 02:41	_	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/03/20 02:41		
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/03/20 02:41	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/03/20 02:41		
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/03/20 02:41	135-98-8	
ert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/03/20 02:41	98-06-6	
Carbon tetrachloride	<1.1	ug/L	3.6	1.1	1		10/03/20 02:41		
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/03/20 02:41	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/03/20 02:41	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/03/20 02:41	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/03/20 02:41	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/03/20 02:41	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/03/20 02:41	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/03/20 02:41	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/03/20 02:41	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/03/20 02:41	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/03/20 02:41	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/03/20 02:41	95-50-1	
1,3-Dichlorobenzene	< 0.63	ug/L	2.1	0.63	1		10/03/20 02:41	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/03/20 02:41	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/03/20 02:41	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		10/03/20 02:41	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/03/20 02:41	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		10/03/20 02:41	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		10/03/20 02:41	156-59-2	
rans-1,2-Dichloroethene	<0.46	ug/L	1.5	0.46	1		10/03/20 02:41	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/03/20 02:41	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/03/20 02:41	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/03/20 02:41	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/03/20 02:41		
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/03/20 02:41		
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/03/20 02:41		
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/03/20 02:41		

Matrix: Water

10/03/20 02:41 87-61-6

10/03/20 02:41 120-82-1

10/03/20 02:41 71-55-6

10/03/20 02:41 79-00-5

10/03/20 02:41 79-01-6

10/03/20 02:41 75-69-4

10/03/20 02:41 96-18-4

10/03/20 02:41 95-63-6

10/03/20 02:41 108-67-8

10/03/20 02:41 75-01-4

10/03/20 02:41 95-47-6

10/03/20 02:41 460-00-4

10/03/20 02:41 1868-53-7

10/03/20 02:41 2037-26-5

10/03/20 02:41 179601-23-1

(920)469-2436



#### **ANALYTICAL RESULTS**

Lab ID: 40215637004

<2.2

<0.95

<0.24

<0.55

<0.26

<0.21

<0.59

<0.84

<0.87

<0.17

<0.47

<0.26

98

96

99

ug/L

%

%

%

Collected: 09/29/20 08:55

Received: 09/30/20 10:15

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Sample: GP-4W

1,2,3-Trichlorobenzene

1,2,4-Trichlorobenzene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichlorofluoromethane

1,2,3-Trichloropropane

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

4-Bromofluorobenzene (S) Dibromofluoromethane (S)

Date: 10/08/2020 01:26 PM

Trichloroethene

Vinyl chloride

m&p-Xylene

Surrogates

Toluene-d8 (S)

o-Xylene

LOQ LOD DF **Parameters** Results Units Prepared CAS No. Analyzed Qual Analytical Method: EPA 8260 8260 MSV Pace Analytical Services - Green Bay Ethylbenzene <0.32 ug/L 0.32 1 10/03/20 02:41 100-41-4 1.1 10/03/20 02:41 87-68-3 Hexachloro-1,3-butadiene <1.5 ug/L 4.9 1.5 1 Isopropylbenzene (Cumene) <1.7 ug/L 5.6 1.7 1 10/03/20 02:41 98-82-8 10/03/20 02:41 99-87-6 p-Isopropyltoluene <0.80 ug/L 2.7 0.80 1 Methylene Chloride <0.58 ug/L 5.0 0.58 1 10/03/20 02:41 75-09-2 10/03/20 02:41 1634-04-4 Methyl-tert-butyl ether <1.2 ug/L 4.2 1.2 1 10/03/20 02:41 91-20-3 Naphthalene <1.2 ug/L 5.0 1.2 1 10/03/20 02:41 103-65-1 n-Propylbenzene <0.81 ug/L 5.0 0.81 1 10/03/20 02:41 100-42-5 Styrene <3.0 ug/L 10.0 3.0 1 1,1,1,2-Tetrachloroethane <0.27 ug/L 1.0 0.27 1 10/03/20 02:41 630-20-6 1,1,2,2-Tetrachloroethane <0.28 ug/L 1.0 0.28 10/03/20 02:41 79-34-5 Tetrachloroethene 0.33 10/03/20 02:41 127-18-4 < 0.33 ug/L 1.1 1 0.27 10/03/20 02:41 108-88-3 Toluene <0.27 ug/L 1.0

7.4

5.0

1.0

5.0

1.0

1.0

5.0

2.8

2.9

1.0

2.0

1.0

70-130

70-130

70-130

2.2

0.95

0.24

0.55

0.26

0.21

0.59

0.84

0.87

0.17

0.47

0.26

1

1

1

1

1

1

1

1

1

1

1

1

1

1



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-4W-D Lab ID: 40215637005 Collected: 09/29/20 08:55 Received: 09/30/20 10:15 Matrix: Water LOQ DF Results Units LOD CAS No. **Parameters** Prepared Analyzed Qual Analytical Method: EPA 8081B Preparation Method: EPA Mod. 3510C 8081B GCS Pesticides Pace Analytical Services - Minneapolis Aldrin <0.015 ug/L 0.051 0.015 10/02/20 14:53 10/05/20 19:00 309-00-2 1 0.0064 alpha-BHC <0.0064 ug/L 0.021 1 10/02/20 14:53 10/05/20 19:00 319-84-6 beta-BHC <0.010 ug/L 0.035 0.010 1 10/02/20 14:53 10/05/20 19:00 319-85-7 delta-BHC < 0.013 ug/L 0.044 0.013 1 10/02/20 14:53 10/05/20 19:00 319-86-8 gamma-BHC (Lindane) < 0.0064 ug/L 0.021 0.0064 10/02/20 14:53 10/05/20 19:00 58-89-9 1 Chlordane (Technical) <0.20 ug/L 0.68 0.20 10/02/20 14:53 10/05/20 19:00 57-74-9 1 alpha-Chlordane <0.0058 ug/L 0.019 0.0058 1 10/02/20 14:53 10/05/20 19:00 5103-71-9 gamma-Chlordane <0.0068 ug/L 0.023 0.0068 1 10/02/20 14:53 10/05/20 19:00 5103-74-2 4,4'-DDD <0.022 ug/L 0.072 0.022 1 10/02/20 14:53 10/05/20 19:00 72-54-8 4,4'-DDE < 0.012 ug/L 0.039 0.012 1 10/02/20 14:53 10/05/20 19:00 72-55-9 4.4'-DDT < 0.027 ug/L 0.089 0.027 10/02/20 14:53 10/05/20 19:00 50-29-3 1 0.0090 Dieldrin < 0.0090 ug/L 0.030 10/02/20 14:53 10/05/20 19:00 60-57-1 Endosulfan I <0.0072 ug/L 0.024 0.0072 10/02/20 14:53 10/05/20 19:00 959-98-8 Endosulfan II < 0.012 ug/L 0.038 0.012 1 10/02/20 14:53 10/05/20 19:00 33213-65-9 Endosulfan sulfate < 0.013 ug/L 0.045 0.013 1 10/02/20 14:53 10/05/20 19:00 1031-07-8 <0.020 0.066 0.020 10/05/20 19:00 72-20-8 Endrin ug/L 1 10/02/20 14:53 <0.018 ug/L 0.059 0.018 10/02/20 14:53 10/05/20 19:00 7421-93-4 Endrin aldehyde 1 10/05/20 19:00 53494-70-5 <0.025 0.025 Endrin ketone 0.083 1 10/02/20 14:53 ug/L <0.0091 0.030 0.0091 10/02/20 14:53 10/05/20 19:00 76-44-8 Heptachlor ug/L 1 <0.0071 Heptachlor epoxide ug/L 0.024 0.0071 1 10/02/20 14:53 10/05/20 19:00 1024-57-3 Methoxychlor < 0.17 ug/L 0.55 0.17 1 10/02/20 14:53 10/05/20 19:00 72-43-5 Toxaphene 0.44 10/02/20 14:53 10/05/20 19:00 8001-35-2 <0.44 ug/L 1.5 1 Surrogates 10/02/20 14:53 10/05/20 19:00 877-09-8 Tetrachloro-m-xylene (S) 101 %. 55-130 1 Decachlorobiphenyl (S) 36-145 10/02/20 14:53 10/05/20 19:00 2051-24-3 108 %. 1 v1 Analytical Method: EPA 8082 Preparation Method: EPA 3510 **8082 GCS PCB** Pace Analytical Services - Green Bay PCB-1016 (Aroclor 1016) <0.11 ug/L 0.48 0.11 10/06/20 12:59 12674-11-2 1 10/05/20 14:17 PCB-1221 (Aroclor 1221) 0 11 <0.11 ug/L 0.48 1 10/05/20 14:17 10/06/20 12:59 11104-28-2 PCB-1232 (Aroclor 1232) <0.11 ug/L 0.48 0.11 1 10/05/20 14:17 10/06/20 12:59 11141-16-5 PCB-1242 (Aroclor 1242) <0.11 ug/L 0.48 0.11 1 10/05/20 14:17 10/06/20 12:59 53469-21-9 PCB-1248 (Aroclor 1248) <0.11 ug/L 0.48 0.11 1 10/05/20 14:17 10/06/20 12:59 12672-29-6 PCB-1254 (Aroclor 1254) <0.11 ug/L 0.48 0.11 1 10/05/20 14:17 10/06/20 12:59 11097-69-1 PCB-1260 (Aroclor 1260) < 0.11 ug/L 0.48 0 11 1 10/05/20 14:17 10/06/20 12:59 11096-82-5 PCB. Total < 0.11 ug/L 0.48 0.11 1 10/05/20 14:17 10/06/20 12:59 1336-36-3 Surrogates 39-127 Tetrachloro-m-xylene (S) 77 % 1 Decachlorobiphenyl (S) 31 % 15-121 1 10/05/20 14:17 10/06/20 12:59 2051-24-3 Analytical Method: EPA 6020 Preparation Method: EPA 3010 **6020 MET ICPMS** Pace Analytical Services - Green Bay Arsenic 8.1 ug/L 5.0 1.4 5 10/02/20 07:11 10/06/20 19:43 7440-38-2 **Barium** 95.6 ug/L 11.6 3.5 5 10/02/20 07:11 10/06/20 19:43 7440-39-3 Cadmium <0.76 0.76 5 10/02/20 07:11 10/06/20 19:43 7440-43-9 ug/L 5.0 D3



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-4W-D	Lab ID:	40215637005	Collected	d: 09/29/20	08:55	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical	Method: EPA 60	020 Prepar	ation Metho	od: EPA	3010			
		ytical Services -							
Chromium	<5.1	ug/L	17.0	5.1	5	10/02/20 07:11	10/06/20 19:43	7440-47-3	D3
Copper	<9.5	ug/L	31.8	9.5	5	10/02/20 07:11	10/06/20 19:43	7440-50-8	D3
Lead	<1.2	ug/L	5.0	1.2	5	10/02/20 07:11	10/06/20 19:43	7439-92-1	D3
Selenium	<1.6	ug/L	5.3	1.6	5	10/02/20 07:11	10/06/20 19:43	7782-49-2	D3
Silver	< 0.64	ug/L	2.5	0.64	5	10/02/20 07:11	10/06/20 19:43	7440-22-4	D3
Zinc	254	ug/L	172	51.6	5	10/02/20 07:11	10/06/20 19:43	7440-66-6	
6020 MET ICPMS, Dissolved	Analytical	Method: EPA 60	020 Prepar	ation Metho	od: EPA	3010			
	Pace Ana	ytical Services -	- Green Bay	/					
Arsenic, Dissolved	10	ug/L	5.0	1.4	5	10/02/20 07:05	10/06/20 21:18	7440-38-2	D9
Barium, Dissolved	120	ug/L	11.6	3.5	5	10/02/20 07:05	10/06/20 21:18	7440-39-3	CR
Cadmium, Dissolved	<0.76	ug/L	5.0	0.76	5	10/02/20 07:05	10/06/20 21:18	7440-43-9	D3
Chromium, Dissolved	<5.1	ug/L	17.0	5.1	5	10/02/20 07:05	10/06/20 21:18	7440-47-3	D3
Copper, Dissolved	<9.5	ug/L	31.8	9.5	5	10/02/20 07:05	10/06/20 21:18	7440-50-8	D3
Lead, Dissolved	<1.2	ug/L	5.0	1.2	5	10/02/20 07:05	10/06/20 21:18	7439-92-1	D3
Selenium, Dissolved	<1.6	ug/L	5.3	1.6	5	10/02/20 07:05	10/06/20 21:18	7782-49-2	D3
Silver, Dissolved	< 0.64	ug/L	2.5	0.64	5	10/02/20 07:05	10/06/20 21:18	7440-22-4	D3
Zinc, Dissolved	222	ug/L	172	51.6	5	10/02/20 07:05	10/06/20 21:18	7440-66-6	
7470 Mercury	-	Method: EPA 74			od: EPA	7470			
Mercury	<0.066	ug/L	0.20	0.066	1	10/05/20 10:35	10/06/20 09:58	7439-97-6	
7470 Mercury, Dissolved	-	Method: EPA 74			od: EPA	7470			
	Pace Ana	ytical Services -	<ul> <li>Green Bay</li> </ul>						
Manager Diagraphy 1		,a <b>.</b>	0.00 <b>2</b> a,	/					
iviercury, Dissolved	<0.066	ug/L	0.20	0.066	1	10/05/20 10:35	10/06/20 11:04	7439-97-6	
•		•	0.20	0.066			10/06/20 11:04	7439-97-6	
•	Analytical	ug/L	0.20 270 by HVI	0.066 Preparatio			10/06/20 11:04	7439-97-6	
8270 MSSV PAH by HVI	Analytical	ug/L Method: EPA 82	0.20 270 by HVI	0.066 Preparatio			10/06/20 11:04 10/02/20 10:22		
8270 MSSV PAH by HVI  1-Methylnaphthalene	Analytical Pace Anal	ug/L Method: EPA 82 ytical Services - ug/L	0.20 270 by HVI - Green Bay	0.066 Preparatio	n Metho	od: EPA 3510		90-12-0	
8270 MSSV PAH by HVI  1-Methylnaphthalene 2-Methylnaphthalene	Analytical Pace Anal	ug/L Method: EPA 82 ytical Services - ug/L ug/L	0.20 270 by HVI - Green Bay 0.029	0.066 Preparatio / 0.0057	n Metho	od: EPA 3510 10/01/20 08:50	10/02/20 10:22	90-12-0 91-57-6	
8270 MSSV PAH by HVI  1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene	Analytical Pace Anal <0.0057 0.0061J	ug/L Method: EPA 82 ytical Services - ug/L	0.20 270 by HVI - Green Bay 0.029 0.024	0.066 Preparatio / 0.0057 0.0048	n Metho 1 1	od: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:22 10/02/20 10:22	90-12-0 91-57-6 83-32-9	
8270 MSSV PAH by HVI  1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene	Analytical Pace Anal <0.0057 0.0061J <0.0059 <0.0048	ug/L Method: EPA 82 ytical Services - ug/L ug/L ug/L ug/L ug/L ug/L	0.20 270 by HVI - Green Bay 0.029 0.024 0.029	0.066 Preparatio / 0.0057 0.0048 0.0059	n Metho 1 1 1	od: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:22 10/02/20 10:22 10/02/20 10:22	90-12-0 91-57-6 83-32-9 208-96-8	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene	Analytical Pace Anal <0.0057 0.0061J <0.0059	ug/L  Method: EPA 82 ytical Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	0.20 270 by HVI - Green Bay 0.029 0.024 0.029 0.024	0.066 Preparatio  /  0.0057 0.0048 0.0059 0.0048	n Metho 1 1 1 1	od: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene	Analytical Pace Anal <0.0057 0.0061J <0.0059 <0.0048 <0.010	ug/L Method: EPA 82 ytical Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	0.20 270 by HVI - Green Bay 0.029 0.024 0.029 0.024 0.051	0.066  Preparatio	n Metho 1 1 1 1	od: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene	Analytical Pace Anal <0.0057 0.0061J <0.0059 <0.0048 <0.010 <0.0073	ug/L  Method: EPA 82 ytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.029 0.024 0.029 0.024 0.051 0.037	0.066  Preparatio  0.0057  0.0048  0.0059  0.0048  0.010  0.0073	n Metho 1 1 1 1 1	od: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene	Analytical Pace Anal <0.0057 0.0061J <0.0059 <0.0048 <0.010 <0.0073 <0.010	ug/L  Method: EPA 82 ytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.029 0.024 0.029 0.024 0.051 0.037 0.051	0.066  Preparatio  0.0057  0.0048  0.0059  0.0048  0.010  0.0073  0.010  0.0056	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0d: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2	
1-Methylnaphthalene 2-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene	Analytical Pace Anal <0.0057 0.0061J <0.0059 <0.0048 <0.010 <0.0073 <0.0010 <0.0056	ug/L  Method: EPA 82 ytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.029 0.024 0.029 0.024 0.051 0.037 0.051 0.028	0.066  Preparatio  0.0057  0.0048  0.0059  0.0048  0.010  0.0073  0.010	n Method  1 1 1 1 1 1 1 1 1	0d: EPA 3510 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50 10/01/20 08:50	10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2	
1-Methylnaphthalene 2-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene	Analytical Pace Anal <0.0057 0.0061J <0.0059 <0.0048 <0.010 <0.0073 <0.010 <0.0056 <0.0066 <0.0073	ug/L  Method: EPA 82 ytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.029 0.024 0.029 0.024 0.051 0.037 0.051 0.028 0.033 0.037	0.066 Preparatio  0.0057 0.0048 0.0059 0.0048 0.010 0.0073 0.010 0.0056 0.0066 0.0073	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50	10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22 10/02/20 10:22	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9	
1-Methylnaphthalene 2-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene	Analytical Pace Anal <0.0057 0.0061J <0.0059 <0.0048 <0.010 <0.0073 <0.010 <0.0056 <0.0066 <0.0073 <0.013	ug/L  Method: EPA 82 ytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.029 0.024 0.029 0.024 0.051 0.037 0.051 0.028 0.033 0.037 0.063	0.066 Preparatio  0.0057 0.0048 0.0059 0.0048 0.010 0.0073 0.010 0.0056 0.0066 0.0073 0.013	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50	10/02/20 10:22 10/02/20 10:22	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 218-01-9	
1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene	Analytical Pace Anal <0.0057 0.0061J <0.0059 <0.0048 <0.010 <0.0073 <0.010 <0.0056 <0.0066 <0.0073 <0.013 <0.0097	ug/L  Method: EPA 82  ytical Services -  ug/L   0.20 270 by HVI - Green Bay 0.029 0.024 0.029 0.024 0.051 0.037 0.051 0.028 0.033 0.037 0.063 0.049	0.066  Preparatio  0.0057 0.0048 0.0059 0.0048 0.010 0.0073 0.010 0.0056 0.0066 0.0073 0.013 0.0097	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50	10/02/20 10:22 10/02/20 10:22	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 218-01-9 53-70-3		
Mercury, Dissolved  8270 MSSV PAH by HVI  1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene Fluoranthene Fluorene	Analytical Pace Anal <0.0057 0.0061J <0.0059 <0.0048 <0.010 <0.0073 <0.010 <0.0056 <0.0066 <0.0073 <0.013	ug/L  Method: EPA 82 ytical Services -  ug/L	0.20 270 by HVI - Green Bay 0.029 0.024 0.029 0.024 0.051 0.037 0.051 0.028 0.033 0.037 0.063	0.066 Preparatio  0.0057 0.0048 0.0059 0.0048 0.010 0.0073 0.010 0.0056 0.0066 0.0073 0.013	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10/01/20 08:50 10/01/20 08:50	10/02/20 10:22 10/02/20 10:22	90-12-0 91-57-6 83-32-9 208-96-8 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 218-01-9 53-70-3 206-44-0	



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: GP-4W-D	Lab ID:	40215637005	Collected	d: 09/29/20	08:55	Received: 09/	30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by HVI	Analytical	Method: EPA 82	270 by HVI	Preparation	n Meth	od: EPA 3510			
	Pace Ana	lytical Services -	Green Ba	y					
Naphthalene	<0.018	ug/L	0.089	0.018	1	10/01/20 08:50	10/02/20 10:22	01-20-3	
Phenanthrene	<0.013	ug/L ug/L	0.067	0.013	1	10/01/20 08:50	10/02/20 10:22		
Pyrene	<0.0074	ug/L ug/L	0.037	0.013	1		10/02/20 10:22		
Surrogates	<b>\0.007</b>	ug/L	0.007	0.0074	'	10/01/20 00.50	10/02/20 10.22	125 00 0	
2-Fluorobiphenyl (S)	53	%	39-120		1	10/01/20 08:50	10/02/20 10:22	321-60-8	
Terphenyl-d14 (S)	70	%	10-159		1	10/01/20 08:50	10/02/20 10:22		
8260 MSV	Analytical	Method: EPA 82	260						
	•	lytical Services		y					
Benzene	<0.25	ug/L	1.0	0.25	1		10/03/20 03:02	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/03/20 03:02		
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/03/20 03:02	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/03/20 03:02	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/03/20 03:02	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/03/20 03:02	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/03/20 03:02		
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/03/20 03:02		
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/03/20 03:02		
Carbon tetrachloride	<1.1	ug/L	3.6	1.1	1		10/03/20 03:02	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/03/20 03:02	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/03/20 03:02		
Chloroform	<1.3	ug/L	5.0	1.3	1		10/03/20 03:02		
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/03/20 03:02		
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/03/20 03:02		
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/03/20 03:02	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/03/20 03:02		
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/03/20 03:02	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/03/20 03:02	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/03/20 03:02	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/03/20 03:02	95-50-1	
1,3-Dichlorobenzene	< 0.63	ug/L	2.1	0.63	1		10/03/20 03:02		
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/03/20 03:02		
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/03/20 03:02		
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		10/03/20 03:02		
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/03/20 03:02		
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		10/03/20 03:02		
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		10/03/20 03:02		
trans-1,2-Dichloroethene	< 0.46	ug/L	1.5	0.46	1		10/03/20 03:02		
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/03/20 03:02		
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/03/20 03:02		
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/03/20 03:02		
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/03/20 03:02		
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/03/20 03:02		
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/03/20 03:02		
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/03/20 03:02		

Matrix: Water

10/03/20 03:02 108-88-3

10/03/20 03:02 87-61-6

10/03/20 03:02 120-82-1

10/03/20 03:02 71-55-6

10/03/20 03:02 79-00-5

10/03/20 03:02 79-01-6

10/03/20 03:02 75-69-4

10/03/20 03:02 96-18-4

10/03/20 03:02 95-63-6

10/03/20 03:02 108-67-8

10/03/20 03:02 75-01-4

10/03/20 03:02 95-47-6

10/03/20 03:02 460-00-4

10/03/20 03:02 1868-53-7

10/03/20 03:02 2037-26-5

10/03/20 03:02 179601-23-1

(920)469-2436



#### **ANALYTICAL RESULTS**

Lab ID: 40215637005

<0.27

<0.95

<0.24

<0.55

<0.26

<0.21

<0.59

<0.84

<0.87

<0.17

<0.47

<0.26

99

99

98

<2.2

ug/L

%

%

%

Collected: 09/29/20 08:55

Received: 09/30/20 10:15

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Sample: GP-4W-D

Toluene

1,2,3-Trichlorobenzene

1,2,4-Trichlorobenzene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichlorofluoromethane

1,2,3-Trichloropropane

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

4-Bromofluorobenzene (S) Dibromofluoromethane (S)

Date: 10/08/2020 01:26 PM

Trichloroethene

Vinyl chloride

m&p-Xylene

Surrogates

Toluene-d8 (S)

o-Xylene

LOQ LOD DF **Parameters** Results Units Prepared CAS No. Analyzed Qual Analytical Method: EPA 8260 8260 MSV Pace Analytical Services - Green Bay Ethylbenzene <0.32 ug/L 0.32 1 10/03/20 03:02 100-41-4 1.1 10/03/20 03:02 87-68-3 Hexachloro-1,3-butadiene <1.5 ug/L 4.9 1.5 1 Isopropylbenzene (Cumene) <1.7 ug/L 5.6 1.7 1 10/03/20 03:02 98-82-8 p-Isopropyltoluene <0.80 ug/L 2.7 0.80 1 10/03/20 03:02 99-87-6 Methylene Chloride <0.58 ug/L 5.0 0.58 1 10/03/20 03:02 75-09-2 Methyl-tert-butyl ether <1.2 ug/L 4.2 1.2 1 10/03/20 03:02 1634-04-4 10/03/20 03:02 91-20-3 Naphthalene <1.2 ug/L 5.0 1.2 1 10/03/20 03:02 103-65-1 n-Propylbenzene <0.81 ug/L 5.0 0.81 1 10/03/20 03:02 100-42-5 Styrene <3.0 ug/L 10.0 3.0 1 1,1,1,2-Tetrachloroethane <0.27 ug/L 1.0 0.27 1 10/03/20 03:02 630-20-6 1,1,2,2-Tetrachloroethane <0.28 ug/L 1.0 0.28 10/03/20 03:02 79-34-5 Tetrachloroethene 0.33 10/03/20 03:02 127-18-4 < 0.33 ug/L 1.1 1

1.0

7.4

5.0

1.0

5.0

1.0

1.0

5.0

2.8

2.9

1.0

2.0

1.0

70-130

70-130

70-130

0.27

0.95

0.24

0.55

0.26

0.21

0.59

0.84

0.87

0.17

0.47

0.26

2.2

1

1

1

1

1

1

1

1

1

1

1

1

1

1

Matrix: Water



#### **ANALYTICAL RESULTS**

Lab ID: 40215637006

<4.4

<1.9

< 0.32

<1.5

<1.7

<0.80

<0.58

<1.2

<1.2

<0.81

<3.0

ug/L

Collected: 09/29/20 00:00

Received: 09/30/20 10:15

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Sample: TRIP BLANK

trans-1,3-Dichloropropene

Hexachloro-1,3-butadiene

Isopropylbenzene (Cumene)

Diisopropyl ether

p-Isopropyltoluene

Methylene Chloride

Methyl-tert-butyl ether

Date: 10/08/2020 01:26 PM

Ethylbenzene

Naphthalene

Styrene

n-Propylbenzene

LOQ DF Results Units LOD Prepared CAS No. **Parameters** Analyzed Qual Analytical Method: EPA 8260 8260 MSV Pace Analytical Services - Green Bay Benzene <0.25 ug/L 1.0 0.25 10/02/20 22:23 71-43-2 1 Bromobenzene <0.24 ug/L 1.0 0.24 1 10/02/20 22:23 108-86-1 Bromochloromethane < 0.36 ug/L 5.0 0.36 1 10/02/20 22:23 74-97-5 Bromodichloromethane 10/02/20 22:23 75-27-4 < 0.36 ug/L 1.2 0.36 1 Bromoform <4.0 ug/L 13 2 4.0 1 10/02/20 22:23 75-25-2 Bromomethane < 0.97 ug/L 5.0 0.97 1 10/02/20 22:23 74-83-9 n-Butylbenzene <0.71 ug/L 2.4 0.71 1 10/02/20 22:23 104-51-8 10/02/20 22:23 135-98-8 sec-Butylbenzene <0.85 ug/L 5.0 0.85 1 tert-Butylbenzene < 0.30 ug/L 1.0 0.30 1 10/02/20 22:23 98-06-6 Carbon tetrachloride <1.1 ug/L 3.6 1.1 1 10/02/20 22:23 56-23-5 Chlorobenzene < 0.71 2.4 0.71 10/02/20 22:23 108-90-7 ug/L 1 Chloroethane <1.3 ug/L 5.0 1.3 1 10/02/20 22:23 75-00-3 Chloroform <1.3 ug/L 5.0 1.3 1 10/02/20 22:23 67-66-3 Chloromethane <2.2 ug/L 7.3 2.2 1 10/02/20 22:23 74-87-3 2-Chlorotoluene < 0.93 ug/L 5.0 0.93 1 10/02/20 22:23 95-49-8 10/02/20 22:23 106-43-4 0.76 4-Chlorotoluene < 0.76 ug/L 2.5 1 10/02/20 22:23 96-12-8 1,2-Dibromo-3-chloropropane <1.8 ug/L 5.9 1.8 1 2.6 10/02/20 22:23 124-48-1 Dibromochloromethane <2.6 1 ug/L 8.7 0.83 <0.83 2.8 10/02/20 22:23 106-93-4 1,2-Dibromoethane (EDB) ug/L 1 Dibromomethane <0.94 ug/L 3.1 0.94 1 10/02/20 22:23 74-95-3 1,2-Dichlorobenzene <0.71 ug/L 2.4 0.71 1 10/02/20 22:23 95-50-1 1,3-Dichlorobenzene < 0.63 2.1 0.63 10/02/20 22:23 541-73-1 ug/L 1 1,4-Dichlorobenzene <0.94 ug/L 3.1 0.94 1 10/02/20 22:23 106-46-7 10/02/20 22:23 75-71-8 Dichlorodifluoromethane < 0.50 ug/L 5.0 0.50 1 1,1-Dichloroethane <0.27 ug/L 1.0 0.27 1 10/02/20 22:23 75-34-3 1.2-Dichloroethane <0.28 ug/L 1.0 0.28 10/02/20 22:23 107-06-2 1 1,1-Dichloroethene <0.24 ug/L 1.0 0.24 10/02/20 22:23 75-35-4 1 cis-1,2-Dichloroethene < 0.27 1.0 0.27 10/02/20 22:23 156-59-2 ug/L 1 ug/L 0.46 10/02/20 22:23 156-60-5 trans-1,2-Dichloroethene < 0.46 1.5 1 0.28 10/02/20 22:23 78-87-5 1,2-Dichloropropane <0.28 ug/L 1.0 1 1,3-Dichloropropane <0.83 ug/L 2.8 0.83 1 10/02/20 22:23 142-28-9 2,2-Dichloropropane <2.3 ug/L 7.6 2.3 1 10/02/20 22:23 594-20-7 1,1-Dichloropropene < 0.54 ug/L 1.8 0.54 1 10/02/20 22:23 563-58-6 cis-1,3-Dichloropropene <3.6 ug/L 12.1 3.6 1 10/02/20 22:23 10061-01-5

#### **REPORT OF LABORATORY ANALYSIS**

14.6

6.3

1.1

4.9

5.6

2.7

5.0

4.2

5.0

5.0

10.0

44

1.9

1.5

1.7

0.80

0.58

1.2

1.2

0.81

3.0

0.32

1

1

1

1

1

1

1

1

1

1

10/02/20 22:23 10061-02-6

10/02/20 22:23 108-20-3 10/02/20 22:23 100-41-4

10/02/20 22:23 87-68-3

10/02/20 22:23 98-82-8

10/02/20 22:23 99-87-6

10/02/20 22:23 75-09-2

10/02/20 22:23 91-20-3

10/02/20 22:23 103-65-1 10/02/20 22:23 100-42-5

10/02/20 22:23 1634-04-4



# **ANALYTICAL RESULTS**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

Sample: TRIP BLANK	Lab ID:	40215637006	Collecte	d: 09/29/20	00:00	Received: 09	/30/20 10:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
	Pace Anal	ytical Services	- Green Ba	у					
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/02/20 22:23	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/02/20 22:23	79-34-5	
Tetrachloroethene	< 0.33	ug/L	1.1	0.33	1		10/02/20 22:23	127-18-4	
Toluene	<0.27	ug/L	1.0	0.27	1		10/02/20 22:23	108-88-3	
1,2,3-Trichlorobenzene	<2.2	ug/L	7.4	2.2	1		10/02/20 22:23	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/02/20 22:23	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		10/02/20 22:23	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/02/20 22:23	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		10/02/20 22:23	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/02/20 22:23	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/02/20 22:23	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/02/20 22:23	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/02/20 22:23	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		10/02/20 22:23	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/02/20 22:23	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/02/20 22:23	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		10/02/20 22:23	460-00-4	HS
Dibromofluoromethane (S)	95	%	70-130		1		10/02/20 22:23	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/02/20 22:23	2037-26-5	



**QUALITY CONTROL DATA** 

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

QC Batch: 367332 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

METHOD BLANK: 2123526 Matrix: Water

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Mercury ug/L <0.066 0.20 10/06/20 09:35

LABORATORY CONTROL SAMPLE: 2123527

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Mercury ug/L 4.7 93 85-115

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2123528 2123529

MS MSD

40215637001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Conc. Limits <0.066 5 20 Mercury ug/L 5 4.4 4.7 89 93 85-115 5

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.



**QUALITY CONTROL DATA** 

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

QC Batch: 367333 Analysis Method: EPA 7470

QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury Dissolved

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

METHOD BLANK: 2123530 Matrix: Water

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Mercury, Dissolved ug/L <0.066 0.20 10/06/20 10:31

LABORATORY CONTROL SAMPLE: 2123531

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units ug/L Mercury, Dissolved 5.0 101 85-115

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2123532 2123533

MS MSD

40215565001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result **RPD** RPD Qual Result Conc. % Rec % Rec Limits Mercury, Dissolved <0.066 5 ug/L 5 4.9 5.0 98 99 85-115 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.



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

QC Batch: 367155 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

METHOD BLANK: 2122341 Matrix: Water

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Arsenic	ug/L	<0.28	1.0	10/06/20 18:21	
Barium	ug/L	< 0.70	2.3	10/06/20 18:21	
Cadmium	ug/L	<0.15	1.0	10/06/20 18:21	
Chromium	ug/L	<1.0	3.4	10/06/20 18:21	
Copper	ug/L	<1.9	6.4	10/06/20 18:21	
Lead	ug/L	<0.24	1.0	10/06/20 18:21	
Selenium	ug/L	< 0.32	1.1	10/06/20 18:21	
Silver	ug/L	<0.13	0.50	10/06/20 18:21	
Zinc	ug/L	<10.3	34.4	10/06/20 18:21	

LABORATORY CONTROL SAMPLE:	2122342	Cailca	LCS	LCS	0/ Doo	
Parameter	Units	Spike Conc.	Result	% Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	500	500	100	80-120	
Barium	ug/L	500	483	97	80-120	
Cadmium	ug/L	500	497	99	80-120	
Chromium	ug/L	500	472	94	80-120	
Copper	ug/L	500	476	95	80-120	
Lead	ug/L	500	460	92	80-120	
Selenium	ug/L	500	522	104	80-120	
Silver	ug/L	250	251	100	80-120	
Zinc	ug/L	500	483	97	80-120	

MATRIX SPIKE & MATRIX	SPIKE DUPLIC	CATE: 2122	343		2122344							
Parameter	4 Units	0215637002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	115	500	500	622	632	101	103	75-125	2	20	
Barium	ug/L	708	500	500	1180	1200	95	98	75-125	1	20	
Cadmium	ug/L	< 0.76	500	500	477	482	95	96	75-125	1	20	
Chromium	ug/L	<5.1	500	500	472	480	93	95	75-125	2	20	
Copper	ug/L	<9.5	500	500	458	466	91	93	75-125	2	20	
Lead	ug/L	3.7J	500	500	502	506	100	100	75-125	1	20	
Selenium	ug/L	<1.6	500	500	530	524	106	104	75-125	1	20	
Silver	ug/L	< 0.64	250	250	233	236	93	94	75-125	1	20	
Zinc	ug/L	<51.6	500	500	481	490	94	96	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.



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

QC Batch: 367154 Analysis Method: EPA 6020

QC Batch Method: EPA 3010 Analysis Description: 6020 MET Dissolved

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

METHOD BLANK: 2122337 Matrix: Water

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<0.28	1.0	10/06/20 19:56	
Barium, Dissolved	ug/L	< 0.70	2.3	10/06/20 19:56	
Cadmium, Dissolved	ug/L	<0.15	1.0	10/06/20 19:56	
Chromium, Dissolved	ug/L	<1.0	3.4	10/06/20 19:56	
Copper, Dissolved	ug/L	<1.9	6.4	10/06/20 19:56	
Lead, Dissolved	ug/L	<0.24	1.0	10/06/20 19:56	
Selenium, Dissolved	ug/L	< 0.32	1.1	10/06/20 19:56	
Silver, Dissolved	ug/L	<0.13	0.50	10/06/20 19:56	
Zinc, Dissolved	ug/L	<10.3	34.4	10/06/20 19:56	

LABORATORY CONTROL SAMPLE: 2122338

Date: 10/08/2020 01:26 PM

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic, Dissolved	ug/L	500	488	98	80-120	
Barium, Dissolved	ug/L	500	468	94	80-120	
Cadmium, Dissolved	ug/L	500	480	96	80-120	
Chromium, Dissolved	ug/L	500	459	92	80-120	
Copper, Dissolved	ug/L	500	462	92	80-120	
Lead, Dissolved	ug/L	500	450	90	80-120	
Selenium, Dissolved	ug/L	500	506	101	80-120	
Silver, Dissolved	ug/L	250	243	97	80-120	
Zinc, Dissolved	ug/L	500	474	95	80-120	

MATRIX SPIKE & MATRIX S	SPIKE DUPLIC	CATE: 2122	339		2122340							
			MS	MSD								
	4	0215637001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic, Dissolved	ug/L	25.1	500	500	531	544	101	104	75-125	2	20	
Barium, Dissolved	ug/L	720	500	500	1190	1210	93	97	75-125	2	20	
Cadmium, Dissolved	ug/L	1.5J	500	500	479	487	95	97	75-125	2	20	
Chromium, Dissolved	ug/L	<5.1	500	500	474	482	94	96	75-125	2	20	
Copper, Dissolved	ug/L	<9.5	500	500	459	464	91	92	75-125	1	20	
Lead, Dissolved	ug/L	4.0J	500	500	500	508	99	101	75-125	2	20	
Selenium, Dissolved	ug/L	2.7J	500	500	524	537	104	107	75-125	2	20	
Silver, Dissolved	ug/L	0.88J	250	250	233	236	93	94	75-125	1	20	
Zinc, Dissolved	ug/L	<51.6	500	500	484	492	96	97	75-125	2	20	

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Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

QC Batch: 367085 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005, 40215637006

METHOD BLANK: 2121944 Matrix: Water

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005, 40215637006

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	10/02/20 17:01	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	10/02/20 17:01	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	10/02/20 17:01	
1,1,2-Trichloroethane	ug/L	< 0.55	5.0	10/02/20 17:01	
1,1-Dichloroethane	ug/L	<0.27	1.0	10/02/20 17:01	
1,1-Dichloroethene	ug/L	< 0.24	1.0	10/02/20 17:01	
1,1-Dichloropropene	ug/L	< 0.54	1.8	10/02/20 17:01	
1,2,3-Trichlorobenzene	ug/L	<2.2	7.4	10/02/20 17:01	
1,2,3-Trichloropropane	ug/L	< 0.59	5.0	10/02/20 17:01	
1,2,4-Trichlorobenzene	ug/L	< 0.95	5.0	10/02/20 17:01	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	10/02/20 17:01	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	10/02/20 17:01	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	10/02/20 17:01	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	10/02/20 17:01	
1,2-Dichloroethane	ug/L	<0.28	1.0	10/02/20 17:01	
1,2-Dichloropropane	ug/L	<0.28	1.0	10/02/20 17:01	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	10/02/20 17:01	
1,3-Dichlorobenzene	ug/L	< 0.63	2.1	10/02/20 17:01	
1,3-Dichloropropane	ug/L	<0.83	2.8	10/02/20 17:01	
1,4-Dichlorobenzene	ug/L	< 0.94	3.1	10/02/20 17:01	
2,2-Dichloropropane	ug/L	<2.3	7.6	10/02/20 17:01	
2-Chlorotoluene	ug/L	< 0.93	5.0	10/02/20 17:01	
4-Chlorotoluene	ug/L	< 0.76	2.5	10/02/20 17:01	
Benzene	ug/L	<0.25	1.0	10/02/20 17:01	
Bromobenzene	ug/L	<0.24	1.0	10/02/20 17:01	
Bromochloromethane	ug/L	< 0.36	5.0	10/02/20 17:01	
Bromodichloromethane	ug/L	< 0.36	1.2	10/02/20 17:01	
Bromoform	ug/L	<4.0	13.2	10/02/20 17:01	
Bromomethane	ug/L	< 0.97	5.0	10/02/20 17:01	
Carbon tetrachloride	ug/L	<1.1	3.6	10/02/20 17:01	
Chlorobenzene	ug/L	<0.71	2.4	10/02/20 17:01	
Chloroethane	ug/L	<1.3	5.0	10/02/20 17:01	
Chloroform	ug/L	<1.3	5.0	10/02/20 17:01	
Chloromethane	ug/L	<2.2	7.3	10/02/20 17:01	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	10/02/20 17:01	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	10/02/20 17:01	
Dibromochloromethane	ug/L	<2.6	8.7	10/02/20 17:01	
Dibromomethane	ug/L	< 0.94	3.1	10/02/20 17:01	
Dichlorodifluoromethane	ug/L	<0.50	5.0	10/02/20 17:01	
Diisopropyl ether	ug/L	<1.9	6.3	10/02/20 17:01	

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Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

METHOD BLANK: 2121944 Matrix: Water

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005, 40215637006

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.32	1.1	10/02/20 17:01	
Hexachloro-1,3-butadiene	ug/L	<1.5	4.9	10/02/20 17:01	
Isopropylbenzene (Cumene)	ug/L	<1.7	5.6	10/02/20 17:01	
m&p-Xylene	ug/L	< 0.47	2.0	10/02/20 17:01	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	10/02/20 17:01	
Methylene Chloride	ug/L	<0.58	5.0	10/02/20 17:01	
n-Butylbenzene	ug/L	<0.71	2.4	10/02/20 17:01	
n-Propylbenzene	ug/L	<0.81	5.0	10/02/20 17:01	
Naphthalene	ug/L	<1.2	5.0	10/02/20 17:01	
o-Xylene	ug/L	<0.26	1.0	10/02/20 17:01	
p-Isopropyltoluene	ug/L	<0.80	2.7	10/02/20 17:01	
sec-Butylbenzene	ug/L	<0.85	5.0	10/02/20 17:01	
Styrene	ug/L	<3.0	10.0	10/02/20 17:01	
tert-Butylbenzene	ug/L	< 0.30	1.0	10/02/20 17:01	
Tetrachloroethene	ug/L	< 0.33	1.1	10/02/20 17:01	
Toluene	ug/L	<0.27	1.0	10/02/20 17:01	
trans-1,2-Dichloroethene	ug/L	<0.46	1.5	10/02/20 17:01	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	10/02/20 17:01	
Trichloroethene	ug/L	<0.26	1.0	10/02/20 17:01	
Trichlorofluoromethane	ug/L	<0.21	1.0	10/02/20 17:01	
Vinyl chloride	ug/L	<0.17	1.0	10/02/20 17:01	
4-Bromofluorobenzene (S)	%	97	70-130	10/02/20 17:01	
Dibromofluoromethane (S)	%	96	70-130	10/02/20 17:01	
Toluene-d8 (S)	%	98	70-130	10/02/20 17:01	

LABORATORY CONTROL SAMPLE:	2121945					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	53.5	107	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	44.9	90	64-131	
1,1,2-Trichloroethane	ug/L	50	48.4	97	70-130	
1,1-Dichloroethane	ug/L	50	61.1	122	69-163	
1,1-Dichloroethene	ug/L	50	51.8	104	77-123	
1,2,4-Trichlorobenzene	ug/L	50	52.6	105	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	38.2	76	63-130	
1,2-Dibromoethane (EDB)	ug/L	50	45.2	90	70-130	
1,2-Dichlorobenzene	ug/L	50	49.5	99	70-130	
1,2-Dichloroethane	ug/L	50	50.2	100	78-142	
1,2-Dichloropropane	ug/L	50	52.4	105	86-134	
1,3-Dichlorobenzene	ug/L	50	50.9	102	70-130	
1,4-Dichlorobenzene	ug/L	50	50.0	100	70-130	
Benzene	ug/L	50	55.2	110	70-130	
Bromodichloromethane	ug/L	50	56.5	113	70-130	
Bromoform	ug/L	50	46.2	92	70-130	

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Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

LABORATORY CONTROL SAMPLE:	2121945					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
romomethane	ug/L	50	39.7	79	39-129	
arbon tetrachloride	ug/L	50	61.9	124	70-132	
hlorobenzene	ug/L	50	51.9	104	70-130	
nloroethane	ug/L	50	47.4	95	66-140	
nloroform	ug/L	50	55.0	110	75-132	
nloromethane	ug/L	50	35.1	70	32-143	
s-1,2-Dichloroethene	ug/L	50	52.1	104	70-130	
s-1,3-Dichloropropene	ug/L	50	51.6	103	70-130	
bromochloromethane	ug/L	50	52.6	105	70-130	
chlorodifluoromethane	ug/L	50	23.1	46	10-141	
nylbenzene	ug/L	50	55.4	111	80-120	
propylbenzene (Cumene)	ug/L	50	53.8	108	70-130	
kp-Xylene	ug/L	100	105	105	70-130	
ethyl-tert-butyl ether	ug/L	50	45.2	90	61-129	
thylene Chloride	ug/L	50	57.7	115	70-130	
(ylene	ug/L	50	52.7	105	70-130	
rene	ug/L	50	53.6	107	70-130	
trachloroethene	ug/L	50	55.8	112	70-130	
luene	ug/L	50	53.3	107	80-120	
ns-1,2-Dichloroethene	ug/L	50	56.8	114	70-130	
ans-1,3-Dichloropropene	ug/L	50	43.5	87	69-130	
chloroethene	ug/L	50	56.4	113	70-130	
chlorofluoromethane	ug/L	50	53.1	106	75-145	
nyl chloride	ug/L	50	43.1	86	51-140	
Bromofluorobenzene (S)	%			100	70-130	
promofluoromethane (S)	%			98	70-130	
luene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SP	PIKE DUPL	ICATE: 2121	950 MS	MSD	2121951							
Parameter	Units	40215657007 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	54.9	54.5	110	109	70-130		20	
1.1.2.2-Tetrachloroethane	ug/L	<0.28	50	50	46.9	44.6	94	89	64-137	5	-	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	50.4	48.1	101	96	70-137	5	-	
1,1-Dichloroethane	ug/L	<0.27	50	50	60.9	61.1	122	122	69-163	0	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	55.3	53.3	111	107	77-129	4	20	
1,2,4-Trichlorobenzene	ug/L	< 0.95	50	50	54.5	50.7	109	101	68-130	7	20	
1,2-Dibromo-3- chloropropane	ug/L	<1.8	50	50	38.9	37.9	78	76	60-130	3	20	
1,2-Dibromoethane (EDB)	ug/L	< 0.83	50	50	47.5	46.8	95	94	70-130	1	20	
1,2-Dichlorobenzene	ug/L	< 0.71	50	50	51.0	48.2	102	96	70-130	6	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	50.3	49.1	101	98	78-145	2	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	53.9	52.3	108	105	86-135	3	20	
1,3-Dichlorobenzene	ug/L	< 0.63	50	50	52.5	49.7	105	99	70-130	5	20	

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# **REPORT OF LABORATORY ANALYSIS**

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Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

MATRIX SPIKE & MATRIX SF	PIKE DUPLI	CATE: 2121	950		2121951							
Parameter	Units	10215657007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qua
1,4-Dichlorobenzene	ug/L	<0.94	50	50	50.5	48.5	101	97	70-130	4	20	
Benzene	ug/L	< 0.25	50	50	55.8	54.6	112	109	70-136	2	20	
Bromodichloromethane	ug/L	< 0.36	50	50	58.1	56.3	116	113	70-130	3	20	
Bromoform	ug/L	<4.0	50	50	47.7	47.0	95	94	69-130	1	20	
Bromomethane	ug/L	< 0.97	50	50	44.9	45.2	90	90	39-138	1	20	
Carbon tetrachloride	ug/L	<1.1	50	50	62.4	60.7	125	121	70-142	3	20	
Chlorobenzene	ug/L	< 0.71	50	50	53.0	51.7	106	103	70-130	3	20	
Chloroethane	ug/L	<1.3	50	50	50.3	51.0	101	102	61-149	1	20	
Chloroform	ug/L	<1.3	50	50	54.7	55.3	109	111	75-133	1	20	
Chloromethane	ug/L	<2.2	50	50	45.7	45.6	91	91	32-143	0	20	
cis-1,2-Dichloroethene	ug/L	< 0.27	50	50	51.6	51.7	103	103	70-130	0	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	52.9	52.3	106	105	70-130	1	20	
Dibromochloromethane	ug/L	<2.6	50	50	55.8	53.8	112	108	70-130	4	20	
Dichlorodifluoromethane	ug/L	< 0.50	50	50	44.6	42.1	89	84	10-141	6	20	
Ethylbenzene	ug/L	< 0.32	50	50	56.5	53.8	113	108	80-120	5	20	
sopropylbenzene (Cumene)	ug/L	<1.7	50	50	55.1	52.2	110	104	70-130	5	20	
m&p-Xylene	ug/L	< 0.47	100	100	109	104	109	104	70-130	5	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	46.1	45.6	92	91	61-136	1	20	
Methylene Chloride	ug/L	<0.58	50	50	57.4	57.8	115	116	68-137	1	20	
o-Xylene	ug/L	< 0.26	50	50	53.1	50.7	106	101	70-130	5	20	
Styrene	ug/L	<3.0	50	50	55.0	53.3	110	107	70-130	3	20	
Tetrachloroethene	ug/L	< 0.33	50	50	57.6	54.1	115	108	70-130	6	20	
Toluene	ug/L	< 0.27	50	50	54.7	52.9	109	106	80-120	3	20	
rans-1,2-Dichloroethene	ug/L	< 0.46	50	50	57.6	57.2	115	114	70-130	1	20	
rans-1,3-Dichloropropene	ug/L	<4.4	50	50	46.1	43.9	92	88	69-130	5	20	
Trichloroethene	ug/L	< 0.26	50	50	58.1	56.4	116	113	70-130	3	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	57.3	54.8	115	110	74-157	4	20	
Vinyl chloride	ug/L	< 0.17	50	50	51.9	50.9	104	102	51-140	2	20	
1-Bromofluorobenzene (S)	%						100	101	70-130			
Dibromofluoromethane (S)	%						95	95	70-130			
Toluene-d8 (S)	%						98	97	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.



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

QC Batch: 367386 Analysis Method: EPA 8082
QC Batch Method: EPA 3510 Analysis Description: 8082 GCS PCB

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

METHOD BLANK: 2123696 Matrix: Water

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	<0.11	0.50	10/06/20 10:24	
PCB-1221 (Aroclor 1221)	ug/L	<0.11	0.50	10/06/20 10:24	
PCB-1232 (Aroclor 1232)	ug/L	<0.11	0.50	10/06/20 10:24	
PCB-1242 (Aroclor 1242)	ug/L	<0.11	0.50	10/06/20 10:24	
PCB-1248 (Aroclor 1248)	ug/L	<0.11	0.50	10/06/20 10:24	
PCB-1254 (Aroclor 1254)	ug/L	<0.11	0.50	10/06/20 10:24	
PCB-1260 (Aroclor 1260)	ug/L	<0.11	0.50	10/06/20 10:24	
Decachlorobiphenyl (S)	%	42	15-121	10/06/20 10:24	
Tetrachloro-m-xvlene (S)	%	82	39-127	10/06/20 10:24	

LABORATORY CONTROL SAMPLE	& LCSD: 212369	7	21	23698						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L		<0.11	<0.11					20	
PCB-1221 (Aroclor 1221)	ug/L		<0.11	<0.11					20	
PCB-1232 (Aroclor 1232)	ug/L		<0.11	<0.11					20	
PCB-1242 (Aroclor 1242)	ug/L		<0.11	<0.11					20	
PCB-1248 (Aroclor 1248)	ug/L		<0.11	<0.11					20	
PCB-1254 (Aroclor 1254)	ug/L		<0.11	<0.11					20	
PCB-1260 (Aroclor 1260)	ug/L	5	4.4	3.9	87	79	72-110	10	20	
Decachlorobiphenyl (S)	%				42	40	15-121			
Tetrachloro-m-xylene (S)	%				86	81	39-127			

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



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

QC Batch: 367047 Analysis Method: EPA 8270 by HVI
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by HVI

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

METHOD BLANK: 2121669 Matrix: Water

Associated Lab Samples: 40215637001, 40215637002, 40215637003, 40215637004, 40215637005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.0059	0.030	10/01/20 11:06	
2-Methylnaphthalene	ug/L	< 0.0049	0.024	10/01/20 11:06	
Acenaphthene	ug/L	< 0.0061	0.030	10/01/20 11:06	
Acenaphthylene	ug/L	< 0.0050	0.025	10/01/20 11:06	
Anthracene	ug/L	< 0.010	0.052	10/01/20 11:06	
Benzo(a)anthracene	ug/L	< 0.0076	0.038	10/01/20 11:06	
Benzo(a)pyrene	ug/L	< 0.011	0.053	10/01/20 11:06	
Benzo(b)fluoranthene	ug/L	< 0.0057	0.029	10/01/20 11:06	
Benzo(g,h,i)perylene	ug/L	<0.0068	0.034	10/01/20 11:06	
Benzo(k)fluoranthene	ug/L	< 0.0076	0.038	10/01/20 11:06	
Chrysene	ug/L	< 0.013	0.065	10/01/20 11:06	
Dibenz(a,h)anthracene	ug/L	< 0.010	0.050	10/01/20 11:06	
Fluoranthene	ug/L	< 0.011	0.053	10/01/20 11:06	
Fluorene	ug/L	<0.0080	0.040	10/01/20 11:06	
Indeno(1,2,3-cd)pyrene	ug/L	<0.018	0.088	10/01/20 11:06	
Naphthalene	ug/L	<0.018	0.092	10/01/20 11:06	
Phenanthrene	ug/L	< 0.014	0.069	10/01/20 11:06	
Pyrene	ug/L	< 0.0076	0.038	10/01/20 11:06	
2-Fluorobiphenyl (S)	%	66	39-120	10/01/20 11:06	
Terphenyl-d14 (S)	%	99	10-159	10/01/20 11:06	

LABORATORY CONTROL SAMPLE:	2121670					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1-Methylnaphthalene	ug/L		1.2	59	37-120	
2-Methylnaphthalene	ug/L	2	1.2	60	38-120	
Acenaphthene	ug/L	2	1.4	68	49-120	
Acenaphthylene	ug/L	2	1.2	59	43-85	
Anthracene	ug/L	2	1.5	75	57-110	
Benzo(a)anthracene	ug/L	2	1.5	75	47-118	
Benzo(a)pyrene	ug/L	2	1.6	78	70-120	
Benzo(b)fluoranthene	ug/L	2	1.6	78	54-97	
Benzo(g,h,i)perylene	ug/L	2	0.99	50	26-74	
Benzo(k)fluoranthene	ug/L	2	1.9	95	73-126	
Chrysene	ug/L	2	1.9	94	75-151	
Dibenz(a,h)anthracene	ug/L	2	0.89	45	13-72	
Fluoranthene	ug/L	2	1.5	74	63-120	
Fluorene	ug/L	2	1.3	67	53-120	
Indeno(1,2,3-cd)pyrene	ug/L	2	1.5	73	51-101	

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



Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

LABORATORY CONTROL SAMPLE: 2121670 Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers 2 Naphthalene ug/L 1.2 61 41-120 2 47-100 Phenanthrene ug/L 1.4 71 2 87 Pyrene ug/L 1.7 70-128 2-Fluorobiphenyl (S) % 69 39-120 Terphenyl-d14 (S) % 98 10-159

MATRIX SPIKE & MATRIX S	PIKE DUPLIC	CATE: 2121	671		2121672							
			MS	MSD								
	4	0215640003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1-Methylnaphthalene	ug/L	54.4	2.3	2.1	58.6	54.6	185	7	16-120		28	M6
2-Methylnaphthalene	ug/L	56.1	2.3	2.1	54.5	49.9	-71	-297	29-120	9	31	M6
Acenaphthene	ug/L	15.7	2.3	2.1	15.3J	15.6J	-16	-6	33-120		30	M6
Acenaphthylene	ug/L	<2.5	2.3	2.1	<2.8	<2.6	79	65	21-85		26	
Anthracene	ug/L	<5.3	2.3	2.1	<5.9	<5.4	0	0	16-114		36	M6
Benzo(a)anthracene	ug/L	<3.9	2.3	2.1	<4.3	<3.9	0	0	10-118		35	M6
Benzo(a)pyrene	ug/L	<5.4	2.3	2.1	<6.0	<5.5	0	0	10-120		37	M6
Benzo(b)fluoranthene	ug/L	<2.9	2.3	2.1	<3.3	<3.0	0	0	10-97		36	M6
Benzo(g,h,i)perylene	ug/L	<3.5	2.3	2.1	<3.9	<3.5	0	0	10-74		45	M6
Benzo(k)fluoranthene	ug/L	<3.9	2.3	2.1	<4.3	<3.9	0	0	10-126		41	M6
Chrysene	ug/L	<6.7	2.3	2.1	<7.4	<6.8	0	0	10-161		30	M6
Dibenz(a,h)anthracene	ug/L	<5.1	2.3	2.1	<5.7	<5.2	0	0	10-72		50	M6
Fluoranthene	ug/L	<5.4	2.3	2.1	<6.1	<5.6	0	0	35-120		33	M6
Fluorene	ug/L	<4.1	2.3	2.1	<4.5	<4.2	0	0	17-120		33	M6
Indeno(1,2,3-cd)pyrene	ug/L	<9.0	2.3	2.1	<10.0	<9.2	0	0	10-101		41	M6
Naphthalene	ug/L	2680	2.3	2.1	2620	2390	-2680	-14100	24-120	9	30	M6
Phenanthrene	ug/L	<7.0	2.3	2.1	<7.8	<7.2	0	190	15-100		30	M6
Pyrene	ug/L	<3.9	2.3	2.1	<4.3	<4.0	0	0	14-137		31	M6
2-Fluorobiphenyl (S)	%						0	0	39-120			S4
Terphenyl-d14 (S)	%						0	0	10-159			S4

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



#### **QUALIFIERS**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

#### **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.

associated samples may have a high bias.

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.

#### **BATCH QUALIFIERS**

Batch: 367417

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

#### **ANALYTE QUALIFIERS**

ν1

Date: 10/08/2020 01:26 PM

CR	The dissolved metal result was greater than the total metal result for this element. Results were confirmed by reanalysis.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D9	Dissolved result is greater than the total. Data is within laboratory control limits.
HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the



# **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 19M106.20 FINCANTIERI MARINETT

Pace Project No.: 40215637

Date: 10/08/2020 01:26 PM

_ab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
0215637001	GP-1W	EPA Mod. 3510C	702134	EPA 8081B	702508
0215637002	GP-3W	EPA Mod. 3510C	702134	EPA 8081B	702508
0215637003	GP-6W	EPA Mod. 3510C	702134	EPA 8081B	702508
0215637004	GP-4W	EPA Mod. 3510C	702134	EPA 8081B	702508
0215637005	GP-4W-D	EPA Mod. 3510C	702134	EPA 8081B	702508
0215637001	GP-1W	EPA 3510	367386	EPA 8082	367417
215637002	GP-3W	EPA 3510	367386	EPA 8082	367417
215637003	GP-6W	EPA 3510	367386	EPA 8082	367417
215637004	GP-4W	EPA 3510	367386	EPA 8082	367417
215637005	GP-4W-D	EPA 3510	367386	EPA 8082	367417
215637001	GP-1W	EPA 3010	367155	EPA 6020	367247
215637002	GP-3W	EPA 3010	367155	EPA 6020	367247
0215637003	GP-6W	EPA 3010	367155	EPA 6020	367247
0215637004	GP-4W	EPA 3010	367155	EPA 6020	367247
215637005	GP-4W-D	EPA 3010	367155	EPA 6020	367247
0215637001	GP-1W	EPA 3010	367154	EPA 6020	367246
215637002	GP-3W	EPA 3010	367154	EPA 6020	367246
215637003	GP-6W	EPA 3010	367154	EPA 6020	367246
215637004	GP-4W	EPA 3010	367154	EPA 6020	367246
215637005	GP-4W-D	EPA 3010	367154	EPA 6020	367246
215637001	GP-1W	EPA 7470	367332	EPA 7470	367441
0215637002	GP-3W	EPA 7470	367332	EPA 7470	367441
215637003	GP-6W	EPA 7470	367332	EPA 7470	367441
215637004	GP-4W	EPA 7470	367332	EPA 7470	367441
215637005	GP-4W-D	EPA 7470	367332	EPA 7470	367441
215637001	GP-1W	EPA 7470	367333	EPA 7470	367442
215637002	GP-3W	EPA 7470	367333	EPA 7470	367442
215637003	GP-6W	EPA 7470	367333	EPA 7470	367442
215637004	GP-4W	EPA 7470	367333	EPA 7470	367442
0215637005	GP-4W-D	EPA 7470	367333	EPA 7470	367442
215637001	GP-1W	EPA 3510	367047	EPA 8270 by HVI	367072
0215637002	GP-3W	EPA 3510	367047	EPA 8270 by HVI	367072
215637003	GP-6W	EPA 3510	367047	EPA 8270 by HVI	367072
215637004	GP-4W	EPA 3510	367047	EPA 8270 by HVI	367072
215637005	GP-4W-D	EPA 3510	367047	EPA 8270 by HVI	367072
215637001	GP-1W	EPA 8260	367085		
215637002	GP-3W	EPA 8260	367085		
215637003	GP-6W	EPA 8260	367085		
215637004	GP-4W	EPA 8260	367085		
215637005	GP-4W-D	EPA 8260	367085		
0215637006	TRIP BLANK	EPA 8260	367085		

46215637



# CHAIN-OF-CUSTODY / Analytical Request Document The Chein-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Pace Analytical Services, Inc. FMM B34/B35 Supplemental Yard Inv. invoices@foth.com 1241 Bellevue Street, Ste. 9, Green Bay, WI 54302 rolect # 19M106.20 2121 Innovation Ct. Groundwater/Water Chemistry Sampling Task: Fincantieri Marinette Marine De Pere WI 54115 920-496-6687 Turn Around Time: Standard of 7-day 1600 Fly Street Marinette, WI 54143 Lab PM: Tod Noltemeyer Fath Protect N 19M106.20 QC level Required: Standard Level II Report 608.232.3300 Denis Roznowski Send EDD to: Steve Lehrke@foth.com Tod Nottemeyer@pacelabs.com (920) 496-6756 OC Hard copy report to: denis.roznowski@foth.com; rick panosh@foth.com; CC Electronic reports (let steve.lehrke@foth.com C=COMP PCBs (EPA MATRIX CODE PVOC (EPA **SAMPLE** Comments/Lab Sample 1.D. G#GRAB Samples IDs MUST BE UNIQUE LOCATION GP-1W GW G GP-1W 9/29/20 1225 9 X Х GP-3W G GP-3W GW 9/29/20 9 1425 X Х GP-6W G GP-6W GW 9/29/20 9 1045 Х Х GP-4W GP-4W GW G 9/29/20 9 0855 Х GP-4W-D GP-4W GW G 9/29/20 0855 9 Х X Х Trip Blank W G 9/29/20 2 ional Comments/Special Instructions All samples unfiltered except dissolved metals fraction. 9/3/20 101533 Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N HIPPING INFO SAMPLER NAME AND SIGNATURE Rick Panosir 1015

Client Name:

# **Sample Preservation Receipt Form**

Project # 40215637

Green Bay, WI 543025 Initial when Date/complete Time:

Pace Analytical Services, LLC

1241 Bellevue Street, Suite \$

All containers needing preservation have been checked and noted below: Pres DNo DN/A

Lab Lot# of pH paper: 1004/94 Lab Std #ID of preservation (if pH adjusted):

				Gla	nss						Plast					Vi				Survey	Ja	ırs		Ge	enera	ı	>6mm) *	5	ct pH≥9	≥12		ısted	Volume
Pace Lab#	NE94	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	вьзо	ВРЗВ	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	N B	VOA Vials (>6mm) *	H2SO4 pH <2	NaOH+Zn Act pH ≥9	NaOH pH ≥′	HNO3 pH ≤2	pH after adjusted	(mL)
001	า					2						ā					3														$\succ$		2.5 / 5 / 10
002	3					<b>み</b>						2					3														X		2.5 / 5 / 10
003	ā					2						>					3														$\times$		2.5 / 5 / 10
004	<u>ک</u>					2						a					3														X		2.5 / 5 / 10
005	2					4						2					3														X		2.5 / 5 / 10
006																	2																2.5 / 5 / 10
007	$\overline{\ \ }$																																2.5 / 5 / 10
008			/																														2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011									7																								2.5 / 5 / 10
012											7																						2.5 / 5 / 10
013														/																			2.5 / 5 / 10
014															/																		2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																			1	1													2.5 / 5 / 10
017																																7	2.5 / 5 / 10
018																							1		0/								2.5 / 5 / 10
019																									73	0/2	2	tu	/				2.5 / 5 / 10
020																										, 6	2	7				•	2.5 / 5 / 10

\_Headspace in VOA Vials (>6mm):□Yes pNo □N/A \*If yes look in headspace column Exceptions to preservation check: (VOA) Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:

AG1U 1 liter amber glass	BP1U	1 liter plastic unpres	VG9A	40 mL clear ascorbic	JGFU	4 oz amber jar unpres
BG1U 1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H 1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
AG4S 125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG4U 120 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG5U 100 mL amber glass unpres			VG9D	40 mL clear vial DI	ZPLC	ziploc bag
AG2S 500 mL amber glass H2SO4					GN	
BG3U 250 mL clear glass unpres						

# Pace Analytical® 1241 Bellevue Street, Green Bay, WI 54302

Document Name:

Sample Condition Upon Receipt (SCUR)

Document No.:

Author:

ENV-FRM-GBAY-0014-Rev.00

Pace Green Bay Quality Office

Document Revised: 26Mar2020

# Sample Condition Upon Receipt Form (SCUR)

Client Name:	WO#: 40215637
Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco	
Client Pace Other:	
Tracking #:	40215637
Custody Seal on Cooler/Box Present:  yes no Seals intact:  yes Custody Seal on Samples Present:  yes no Seals intact:  yes Packing Material:  Bubble Wrap Bubble Bags None Othermometer Used SR - Type of Ice:  Blue Dry Cooler Temperature Uncorr:  Cooler Temperature	no er
Temp Blank Present:	10-20-00
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: Д́Yes □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: 8.  For Analysis: ☑Yes □No MS/MSD: □Yes ☑No □N/A	
Correct Containers Used: ☑Yes ☐No 9.	
-Pace Containers Used:	
-Pace IR Containers Used: □Yes □No ☑N/A	
Containers Intact: ☐Yes ☐No 10.	
Filtered volume received for Dissolved tests	
Sample Labels match COC: Yes □No □N/A 12.  -Includes date/time/ID/Analysis Matrix:	
Trip Blank Present: ☐Yes ☐No ☐N/A 13.	
Trip Blank Custody Seals Present Pace Trip Blank Lot # (if purchased): 449	
Client Notification/ Resolution: Person Contacted: Comments/ Resolution:	If checked, see attached form for additional comments

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



# **Environment Testing America**

## **ANALYTICAL REPORT**

Eurofins TestAmerica, Sacramento 880 Riverside Parkway West Sacramento, CA 95605 Tel: (916)373-5600

Laboratory Job ID: 320-65202-1

Client Project/Site: PFAS, Fincantieri Marinette Marine

19M106.20

For:

Foth Infrastructure & Environment, LLC 2121 Innovation Court Suite 300 De Pere, Wisconsin 54115

Attn: Rick Panosh

Authorized for release by: 10/8/2020 5:05:00 PM

sanda breduik

Sandie Fredrick, Project Manager II (920)261-1660

sandra.fredrick@eurofinset.com

..... Links .....

Review your project results through

Total Access

**Have a Question?** 



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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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#### **Definitions/Glossary**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Job ID: 320-65202-1

#### **Qualifiers**

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Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
*	Isotope Dilution analyte is outside acceptance limits.
J	Reported value was between the limit of detection and the limit of quantitation.

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL MLMinimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

Not Calculated NC

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RLReporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points **RPD** 

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

#### **Case Narrative**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Job ID: 320-65202-1

Laboratory: Eurofins TestAmerica, Sacramento

**Narrative** 

Job Narrative 320-65202-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/1/2020 9:40 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.8° C.

#### **Receipt Exceptions**

Samples 1-3 have sample discoloration. GP-1W (320-65202-1), GP-3W (320-65202-2), GP-6W (320-65202-3), GP-4W (320-65202-4), GP-4W-D (320-65202-5) and GP-W-ER (320-65202-6)

#### LCMS

Method 537 (modified): Results for samples GP-1W (320-65202-1) and GP-3W (320-65202-2) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS and M2-8:2 FTS the following sample: GP-4W (320-65202-4). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Several Isotope Dilution Analyte (IDA) recovery are above the method recommended limit for the following sample: GP-4W-D (320-65202-5). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Results for samples GP-4W (320-65202-4) and GP-4W-D (320-65202-5) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): Results for samples GP-1W (320-65202-1), GP-3W (320-65202-2) and GP-6W (320-65202-3) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): The laboratory control sample (LCS) for preparation batch 320-417940 and analytical batch 320-418237 recovered outside control limits for the following analytes: Perfluorododecanoic acid (PFDoA). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 537 (modified): The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 320-417940 and analytical batch 320-418237 recovered outside control limits for the following analytes: Perfluorododecanoic acid (PFDoA).

Method 537 (modified): Results for samples GP-6W (320-65202-3) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS the following sample: GP-6W (320-65202-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Results for samples GP-1W (320-65202-1) and GP-3W (320-65202-2) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Job ID: 320-65202-1

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Eurofins TestAmerica, Sacramento 10/8/2020

#### Case Narrative

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Job ID: 320-65202-1

#### Job ID: 320-65202-1 (Continued)

#### Laboratory: Eurofins TestAmerica, Sacramento (Continued)

Method 537 (modified): Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for M2-6:2 FTS the following samples: GP-1W (320-65202-1) and GP-3W (320-65202-2). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Results for sample GP-6W (320-65202-3) were reported from the analysis of a diluted extract due to the sample matrix affecting the quantitation of the Isotope Dilution Analyte (IDA) in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **Organic Prep**

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-417924. 3535 PFC Water 320-417924

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with: preparation batch 320-417940. 320-417940 Method: 3535 PFC-W

Method 3535: The following samples were yellow prior to extraction: GP-3W (320-65202-2) and GP-6W (320-65202-3). 320-417940 Method: 3535 PFC-W

Method 3535: The following sample was brown prior to extraction: GP-1W (320-65202-1). 320-417940 Method: 3535 PFC-W

Method 3535: The following samples contained a thin layer of sediment at the bottom of the container prior to extraction: GP-1W (320-65202-1) and GP-3W (320-65202-2). 320-417940 Method: 3535 PFC-W

Method 3535: The following sample contained a particulates in the container prior to extraction: GP-6W (320-65202-3). 320-417940 Method: 3535 PFC-W

Method 3535: The following samples are light yellow after extraction/final volume: GP-1W (320-65202-1), GP-3W (320-65202-2) and GP-6W (320-65202-3). 320-417940 Method: 3535 PFC-W

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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**Client Sample ID: GP-1W** 

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Lab Sample ID: 320-65202-1

Job ID: 320-65202-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	93		4.6	2.2	ng/L	1	_	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	190		1.8	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	200		1.8	0.53	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	140		1.8	0.23	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	14		1.8	0.25	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.7	J	1.8	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	7.1		1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	9.0		1.8	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	150		1.8	0.52	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	4.3		1.8	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	90		1.8	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	31		1.8	0.89	ng/L	1		537 (modified)	Total/NA
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	2.6	J	4.6	1.1	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	6.0		4.6	1.2	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	500		180	78	ng/L	100		537 (modified)	Total/NA
6:2 FTS - DL	380	J	460	230	ng/L	100		537 (modified)	Total/NA

**Client Sample ID: GP-3W** 

Lab Sample ID: 320-65202-2

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	160		4.4	2.1	ng/L	1	_	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	200		1.8	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	300		1.8	0.75	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	8.3		1.8	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	7.1		1.8	0.18	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	7.9		1.8	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	150		1.8	0.50	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	3.2		1.8	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	54		1.8	0.48	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	11		4.4	1.1	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	620		180	43	ng/L	100		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	520		180	51	ng/L	100		537 (modified)	Total/NA
6:2 FTS - DL	440		440	220	ng/L	100		537 (modified)	Total/NA

**Client Sample ID: GP-6W** 

Lab Sample ID: 320-65202-3

Analyte	Result Q	ualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	95		4.4	2.1	ng/L	1	_	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	260		1.7	0.43	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	250		1.7	0.51	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	130		1.7	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	110		1.7	0.74	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	21		1.7	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.62 J		1.7	0.27	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.2		1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PEPeS)	1.2 J		1.7	0.26	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

10/8/2020

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Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

## Client Sample ID: GP-6W (Continued)

#### Lab Sample ID: 320-65202-3

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	28		1.7	0.50	ng/L		_	537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.6		1.7	0.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	44		1.7	0.47	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	2.9 、	J	4.4	1.1	ng/L	1		537 (modified)	Total/NA
4:2 FTS - DL	2.2	J	8.7	1.0	ng/L	5		537 (modified)	Total/NA
6:2 FTS - DL	98		22	11	ng/L	5		537 (modified)	Total/NA
8:2 FTS - DL	20		8.7	2.0	ng/L	5		537 (modified)	Total/NA

#### **Client Sample ID: GP-4W**

#### Lab Sample ID: 320-65202-4

Analyte	Result Qua	alifier LOQ	LOD	Unit	Dil Fac D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	320	4.6	2.2	ng/L		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	220	1.9	0.23	ng/L	1	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	100	1.9	0.79	ng/L	1	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	53	1.9	0.25	ng/L	1	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	38	1.9	0.29	ng/L	1	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.2	1.9	1.0	ng/L	1	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	1.9	1.9	0.51	ng/L	1	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.0	1.9	0.19	ng/L	1	537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	2.6	1.9	0.28	ng/L	1	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	89	1.9	0.53	ng/L	1	537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	4.7	1.9	0.18	ng/L	1	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	1.5 J	1.9	0.91	ng/L	1	537 (modified)	Total/NA
6:2 FTS	6.6	4.6	2.3	ng/L	1	537 (modified)	Total/NA
8:2 FTS	0.90 J	1.9	0.43	ng/L	1	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	1100	19	4.6	ng/L	10	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	810	19	5.4	ng/L	10	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) -	390	19	5.0	ng/L	10	537 (modified)	Total/NA

#### Client Sample ID: GP-4W-D

#### Lab Sample ID: 320-65202-5

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- Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	330		4.8	2.3	ng/L	1	_	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	220		1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	110		1.9	0.81	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	54		1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	36		1.9	0.30	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.1		1.9	1.0	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	2.0		1.9	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.2		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	3.2		1.9	0.29	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	93		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	4.5		1.9	0.18	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	1.4	J	1.9	0.93	ng/L	1		537 (modified)	Total/NA
6:2 FTS	6.1		4.8	2.4	ng/L	1		537 (modified)	Total/NA
8:2 FTS	0.96	J	1.9	0.44	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	1100		19	4.7	ng/L	10		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

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Job ID: 320-65202-1

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10/8/2020

## **Detection Summary**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

#### Client Sample ID: GP-4W-D (Continued)

Lab Sample ID: 320-65202-5

Job ID: 320-65202-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA) - DL	820		19	5.5	ng/L	10	_	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	380		19	5.1	ng/L	10		537 (modified)	Total/NA

## Client Sample ID: GP-W-ER Lab Sample ID: 320-65202-6

No Detections.

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Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Method: 537 (modified) - Fluorinated Alkyl Substances

Result Qualifier

93

190

200

140

14

1.7

<1.0

<0.50

<1.2

< 0.67

< 0.81

7.1

< 0.86

9.0

150

4.3

90

< 0.34

< 0.29

31

6.0

< 0.79

< 0.39

<1.3

< 0.78

< 0.88

< 0.22

<1.4

< 0.29

2.6 J

Client Sample ID: GP-1W Date Collected: 09/29/20 12:25

LOQ

4.6

1.8

1.8

1.8

1.8

18

1.8

1.8

1.8

1.8

1.8

1.8

1.8

1.8

1.8

1.8

1.8

1.8

1.8

18

4.6

4.6

1.8

1.8

3.6

1.8

1.8

1.8

3.6

1.8

**LOD** Unit

2.2 ng/L

0.45 ng/L

0.53 ng/L

0.23 ng/L

0.25 ng/L

0.28 ng/L

1.0 ng/L

0.50 ng/L

0.67 ng/L

0.81 ng/L

0.18 ng/L

0.86 ng/L

0.27 ng/L

0.52 ng/L

0.17 ng/L

0.49 ng/L

0.34 ng/L

0.29 ng/L

0.89 ng/L

1.1 ng/L

1.2 ng/L

0.79 ng/L

0.39 ng/L

1.3 ng/L

0.78 ng/L

0.88 ng/L

0.22 ng/L

1.4 ng/L

0.29 na/L

1.2 ng/L

D

Date Received: 10/01/20 09:40

Perfluorobutanoic acid (PFBA)

Perfluoropentanoic acid (PFPeA)

Perfluorohexanoic acid (PFHxA)

Perfluoroheptanoic acid (PFHpA)

Perfluorononanoic acid (PFNA)

Perfluorodecanoic acid (PFDA)

Perfluoroundecanoic acid (PFUnA)

Perfluorododecanoic acid (PFDoA)

Perfluorotridecanoic acid (PFTriA)

Perfluoro-n-hexadecanoic acid

Perfluoro-n-octadecanoic acid

Perfluorobutanesulfonic acid

Perfluoropentanesulfonic acid

Perfluorohexanesulfonic acid

Perfluoroheptanesulfonic Acid

Perfluorooctanesulfonic acid

Perfluorooctanesulfonamide

Perfluorononanesulfonic acid (PFNS)

Perfluorodecanesulfonic acid (PFDS)

N-methylperfluorooctanesulfona

midoacetic acid (NMeFOSAA) N-ethylperfluorooctanesulfonami

doacetic acid (NEtFOSAA)

Perfluorododecanesulfonic acid

Perfluorotetradecanoic acid (PFTeA)

Analyte

(PFHxDA)

(PFBS)

(PFODA)

(PFPeS)

(PFHxS)

(PFHpS)

(PFOS)

(FOSA)

**NEtFOSA** 

**NMeFOSA** 

**NMeFOSE** 

**NEtFOSE** 

(PFDoS)

F-53B Major

F-53B Minor

HFPO-DA (GenX)

Lab Sample	ID: 320-65202-1
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Job ID: 320-65202-1

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**Matrix: Ground Water** Prepared Analyzed Dil Fac 10/02/20 04:37 10/02/20 21:28 10/02/20 21:28 10/02/20 04:37 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 21:28 10/02/20 04:37 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28 10/02/20 04:37 10/02/20 21:28

DONA	<0.36		1.8	0.36 ng/L	10/02/20 04:37	10/02/20 21:28	1
Isotope Dilution	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
13C4 PFBA	29		25 - 150		10/02/20 04:37	10/02/20 21:28	1
13C5 PFPeA	69		25 - 150		10/02/20 04:37	10/02/20 21:28	1
13C2 PFHxA	80		25 - 150		10/02/20 04:37	10/02/20 21:28	1
13C4 PFHpA	96		25 - 150		10/02/20 04:37	10/02/20 21:28	1
13C5 PFNA	103		25 - 150		10/02/20 04:37	10/02/20 21:28	1
13C2 PFDA	95		25 - 150		10/02/20 04:37	10/02/20 21:28	1
13C2 PFUnA	110		25 - 150		10/02/20 04:37	10/02/20 21:28	1
13C2 PFDoA	111		25 - 150		10/02/20 04:37	10/02/20 21:28	1
13C2 PFTeDA	74		25 - 150		10/02/20 04:37	10/02/20 21:28	1

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Client: Foth Infrastructure & Environment, LLC

d7-N-MeFOSE-M

d-N-EtFOSA-M

13C2 PFHxDA

13C3 HFPO-DA

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

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Client Sample ID: GP-1W Lab Sample ID: 320-65202-1

Date Collected: 09/29/20 12:25

Date Received: 10/01/20 09:40

Matrix: Ground Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFBS	136		25 - 150	10/02/20 04:37	10/02/20 21:28	1
1802 PFHxS	143		25 - 150	10/02/20 04:37	10/02/20 21:28	1
13C4 PFOS	148		25 - 150	10/02/20 04:37	10/02/20 21:28	1
13C8 FOSA	97		25 - 150	10/02/20 04:37	10/02/20 21:28	1
d3-NMeFOSAA	97		25 - 150	10/02/20 04:37	10/02/20 21:28	1
d5-NEtFOSAA	122		25 - 150	10/02/20 04:37	10/02/20 21:28	1
d9-N-EtFOSE-M	63		10 - 120	10/02/20 04:37	10/02/20 21:28	1
d-N-MeFOSA-M	68		20 - 150	10/02/20 04:37	10/02/20 21:28	1

10 - 120

20 - 150

25 - 150

25 - 150

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	500		180	78	ng/L		10/02/20 04:37	10/07/20 11:36	100
4:2 FTS	<22		180	22	ng/L		10/02/20 04:37	10/07/20 11:36	100
6:2 FTS	380	J	460	230	ng/L		10/02/20 04:37	10/07/20 11:36	100
8:2 FTS	<42		180	42	ng/L		10/02/20 04:37	10/07/20 11:36	100
10:2 FTS	<61		180	61	ng/L		10/02/20 04:37	10/07/20 11:36	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFOA	92		25 - 150				10/02/20 04:37	10/07/20 11:36	100
M2-6:2 FTS	159	*	25 - 150				10/02/20 04:37	10/07/20 11:36	100
M2-8:2 FTS	104		25 - 150				10/02/20 04:37	10/07/20 11:36	100
M2-4:2 FTS	118		25 - 150				10/02/20 04:37	10/07/20 11:36	100

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Job ID: 320-65202-1

10/02/20 04:37 10/02/20 21:28

10/02/20 04:37 10/02/20 21:28

10/02/20 04:37 10/02/20 21:28

10/02/20 04:37 10/02/20 21:28

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Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Client Sample ID: GP-3W Lab Sample ID: 320-65202-2

Date Collected: 09/29/20 14:25
Date Received: 10/01/20 09:40
Matrix: Ground Water

Analyte	Result	Qualifier	LOQ	LOD		D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	160		4.4	2.1	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluoroheptanoic acid (PFHpA)	200		1.8	0.22	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluorooctanoic acid (PFOA)	300		1.8	0.75	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluorononanoic acid (PFNA)	8.3		1.8	0.24	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluorodecanoic acid (PFDA)	<0.27		1.8	0.27	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluoroundecanoic acid (PFUnA)	< 0.97		1.8	0.97	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluorododecanoic acid (PFDoA)	<0.48	*	1.8	0.48	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluorotridecanoic acid (PFTriA)	<1.1		1.8	1.1	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluorotetradecanoic acid (PFTeA)	< 0.64		1.8	0.64	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluoro-n-hexadecanoic acid PFHxDA)	<0.78		1.8	0.78	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluorobutanesulfonic acid PFBS)	7.1		1.8	0.18	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.83		1.8	0.83	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluoropentanesulfonic acid PFPeS)	7.9		1.8	0.26	-		10/02/20 04:37	10/02/20 21:38	1
Perfluorohexanesulfonic acid (PFHxS)	150		1.8	0.50	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluoroheptanesulfonic Acid (PFHpS)	3.2		1.8		ng/L		10/02/20 04:37	10/02/20 21:38	
Perfluorooctanesulfonic acid PFOS)	54		1.8	0.48	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluorononanesulfonic acid (PFNS)	<0.33		1.8		ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluorodecanesulfonic acid (PFDS)	<0.28		1.8	0.28	ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluorooctanesulfonamide (FOSA)	<0.86		1.8	0.86	ng/L		10/02/20 04:37	10/02/20 21:38	1
I-methylperfluorooctanesulfonamidoa etic acid (NMeFOSAA)	<1.1		4.4	1.1	ng/L		10/02/20 04:37	10/02/20 21:38	1
I-ethylperfluorooctanesulfonami loacetic acid (NEtFOSAA)	11		4.4		ng/L		10/02/20 04:37	10/02/20 21:38	1
NEtFOSA	<0.77		1.8		ng/L		10/02/20 04:37	10/02/20 21:38	1
NMeFOSA	<0.38		1.8	0.38	ng/L			10/02/20 21:38	1
NMeFOSE	<1.2		3.5	1.2	ng/L			10/02/20 21:38	1
NEtFOSE	<0.75		1.8		ng/L		10/02/20 04:37	10/02/20 21:38	1
Perfluorododecanesulfonic acid PFDoS)	<0.85		1.8		ng/L			10/02/20 21:38	1
-53B Major	<0.21		1.8		ng/L		10/02/20 04:37	10/02/20 21:38	1
IFPO-DA (GenX)	<1.3		3.5		ng/L		10/02/20 04:37	10/02/20 21:38	1
-53B Minor	<0.28		1.8		ng/L		10/02/20 04:37	10/02/20 21:38	1
OONA	<0.35		1.8	0.35	ng/L		10/02/20 04:37	10/02/20 21:38	1
sotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
3C4 PFBA	30		25 - 150				10/02/20 04:37	10/02/20 21:38	1
13C4 PFHpA	89		25 - 150				10/02/20 04:37	10/02/20 21:38	1
3C4 PFOA	84		25 - 150				10/02/20 04:37	10/02/20 21:38	1
3C5 PFNA	104		25 - 150				10/02/20 04:37	10/02/20 21:38	1
3C2 PFDA	106		25 - 150				10/02/20 04:37	10/02/20 21:38	1
3C2 PFUnA	122		25 - 150				10/02/20 04:37	10/02/20 21:38	1
3C2 PFDoA	104		25 - 150				10/02/20 04:37	10/02/20 21:38	
3C2 PFTeDA	109		25 - 150				10/02/20 04:37	10/02/20 21:38	1
3C3 PFBS	130		25 - 150					10/02/20 21:38	1
1802 PFHxS	134		25 - 150					10/02/20 21:38	
13C4 PFOS	139		25 - 150					10/02/20 21:38	1

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Job ID: 320-65202-1

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Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

**Client Sample ID: GP-3W** Lab Sample ID: 320-65202-2 **Matrix: Ground Water** 

Date Collected: 09/29/20 14:25 Date Received: 10/01/20 09:40

M2-4:2 FTS

Method: 537 (mc	dified) - Fluorinate	ed Alkyl Substance	s (Continued)

Method. 557 (modified	ı) - Fluorillaleu Alkyı Sul	istances (Continued)			
Isotope Dilution	%Recovery Quali	fier Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	92	25 - 150	10/02/20 04:37	10/02/20 21:38	1
d3-NMeFOSAA	86	25 - 150	10/02/20 04:37	10/02/20 21:38	1
d5-NEtFOSAA	113	25 - 150	10/02/20 04:37	10/02/20 21:38	1
d9-N-EtFOSE-M	60	10 - 120	10/02/20 04:37	10/02/20 21:38	1
d-N-MeFOSA-M	57	20 - 150	10/02/20 04:37	10/02/20 21:38	1
d7-N-MeFOSE-M	61	10 - 120	10/02/20 04:37	10/02/20 21:38	1
d-N-EtFOSA-M	63	20 - 150	10/02/20 04:37	10/02/20 21:38	1
13C2 PFHxDA	91	25 - 150	10/02/20 04:37	10/02/20 21:38	1
13C3 HFPO-DA	99	25 - 150	10/02/20 04:37	10/02/20 21:38	1

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Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	620		180	43	ng/L		10/02/20 04:37	10/07/20 11:45	100
Perfluorohexanoic acid (PFHxA)	520		180	51	ng/L		10/02/20 04:37	10/07/20 11:45	100
4:2 FTS	<21		180	21	ng/L		10/02/20 04:37	10/07/20 11:45	100
6:2 FTS	440		440	220	ng/L		10/02/20 04:37	10/07/20 11:45	100
8:2 FTS	<41		180	41	ng/L		10/02/20 04:37	10/07/20 11:45	100
10:2 FTS	<59		180	59	ng/L		10/02/20 04:37	10/07/20 11:45	100
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	84		25 - 150				10/02/20 04:37	10/07/20 11:45	100
13C2 PFHxA	85		25 - 150				10/02/20 04:37	10/07/20 11:45	100
M2-6:2 FTS	167	*	25 - 150				10/02/20 04:37	10/07/20 11:45	100
M2-8:2 FTS	94		25 - 150				10/02/20 04:37	10/07/20 11:45	100

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10/02/20 04:37 10/07/20 11:45

Job ID: 320-65202-1

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Lab Sample ID: 320-65202-3 **Client Sample ID: GP-6W** 

Date Collected: 09/29/20 10:45 Date Received: 10/01/20 09:40

**Matrix: Ground Water** 

Job ID: 320-65202-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	95		4.4	2.1	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluoropentanoic acid (PFPeA)	260		1.7	0.43	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluorohexanoic acid (PFHxA)	250		1.7	0.51	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluoroheptanoic acid (PFHpA)	130		1.7	0.22	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluorooctanoic acid (PFOA)	110		1.7	0.74	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluorononanoic acid (PFNA)	21		1.7	0.24	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluorodecanoic acid (PFDA)	0.62	J	1.7	0.27	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluoroundecanoic acid (PFUnA)	< 0.96		1.7	0.96	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluorododecanoic acid (PFDoA)	<0.48	*	1.7	0.48	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluorotridecanoic acid (PFTriA)	<1.1		1.7	1.1	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluorotetradecanoic acid (PFTeA)	< 0.64		1.7	0.64	-		10/02/20 04:37	10/02/20 21:47	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.78		1.7	0.78	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluorobutanesulfonic acid (PFBS)	6.2		1.7	0.17	ng/L		10/02/20 04:37	10/02/20 21:47	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.82		1.7		ng/L			10/02/20 21:47	1
Perfluoropentanesulfonic acid (PFPeS)	1.2	J	1.7		ng/L			10/02/20 21:47	
Perfluorohexanesulfonic acid (PFHxS)	28		1.7	0.50	_			10/02/20 21:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	2.6		1.7	0.17				10/02/20 21:47	1
Perfluorooctanesulfonic acid (PFOS)	44		1.7	0.47				10/02/20 21:47	
Perfluorononanesulfonic acid (PFNS)	<0.32		1.7	0.32	_			10/02/20 21:47	1
Perfluorodecanesulfonic acid (PFDS)	<0.28		1.7		ng/L			10/02/20 21:47	1
Perfluorooctanesulfonamide (FOSA)	<0.86		1.7		ng/L			10/02/20 21:47	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	<1.0		4.4		ng/L			10/02/20 21:47	1
N-ethylperfluorooctanesulfonami doacetic acid (NEtFOSAA)	2.9	J	4.4 1.7		ng/L			10/02/20 21:47	1
NEtFOSA NMeFOSA	<0.76			0.76				10/02/20 21:47 10/02/20 21:47	1
	<0.38 <1.2		1.7	0.38	_				1
NMeFOSE NEtFOSE			3.5		ng/L			10/02/20 21:47	
· · · · · · · · · · · · · · · · · · ·	<0.74		1.7		ng/L			10/02/20 21:47	
Perfluorododecanesulfonic acid (PFDoS) F-53B Major	<0.85 <0.21		1.7 1.7	0.85				10/02/20 21:47 10/02/20 21:47	1
HFPO-DA (GenX)	<1.3		3.5		ng/L			10/02/20 21:47	1
F-53B Minor DONA	<0.28 <0.35		1.7 1.7	0.28 0.35	ng/L ng/L			10/02/20 21:47 10/02/20 21:47	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	29		25 - 150				10/02/20 04:37	10/02/20 21:47	1
13C5 PFPeA	62		25 - 150				10/02/20 04:37	10/02/20 21:47	1
13C2 PFHxA	72		25 - 150				10/02/20 04:37	10/02/20 21:47	1
13C4 PFHpA	90		25 - 150				10/02/20 04:37	10/02/20 21:47	1
13C4 PFOA	95		25 - 150				10/02/20 04:37	10/02/20 21:47	1
13C5 PFNA	115		25 - 150				10/02/20 04:37	10/02/20 21:47	1
13C2 PFDA	102		25 - 150					10/02/20 21:47	1
13C2 PFUnA	126		25 - 150					10/02/20 21:47	1
13C2 PFDoA	118		25 - 150					10/02/20 21:47	1

Eurofins TestAmerica, Sacramento

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Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

**Client Sample ID: GP-6W** Lab Sample ID: 320-65202-3

Date Collected: 09/29/20 10:45 **Matrix: Ground Water** Date Received: 10/01/20 09:40

Method: 537 (modified) - Fluo	rinated Alkyl Substand	ces (Continued)
Isotope Dilution	%Recovery Qualifier	Limits

Isotope Dilution	%Recovery Q	Qualifier Li	mits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA		25	- 150	10/02/20 04:37	10/02/20 21:47	1
13C3 PFBS	116	25	<sub>-</sub> 150	10/02/20 04:37	10/02/20 21:47	1
18O2 PFHxS	121	25	- 150	10/02/20 04:37	10/02/20 21:47	1
13C4 PFOS	128	25	<sub>-</sub> 150	10/02/20 04:37	10/02/20 21:47	1
13C8 FOSA	101	25	<sub>-</sub> 150	10/02/20 04:37	10/02/20 21:47	1
d3-NMeFOSAA	116	25	- 150	10/02/20 04:37	10/02/20 21:47	1
d5-NEtFOSAA	131	25	<sub>-</sub> 150	10/02/20 04:37	10/02/20 21:47	1
d9-N-EtFOSE-M	49	10	- 120	10/02/20 04:37	10/02/20 21:47	1
d-N-MeFOSA-M	70	20	<sub>-</sub> 150	10/02/20 04:37	10/02/20 21:47	1
d7-N-MeFOSE-M	53	10	- 120	10/02/20 04:37	10/02/20 21:47	1
d-N-EtFOSA-M	60	20	- 150	10/02/20 04:37	10/02/20 21:47	1
13C2 PFHxDA	98	25	<sub>-</sub> 150	10/02/20 04:37	10/02/20 21:47	1
13C3 HFPO-DA	96	25	- 150	10/02/20 04:37	10/02/20 21:47	1

Method: 537	(modified) -	Fluorinated Alky	Substances - DL
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M2-4:2 FTS

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method: our (medine	a) - i luoi illutoa Alityi t	Cubstant	JUS DE						
Analyte	Result Q	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
4:2 FTS	2.2 J		8.7	1.0	ng/L		10/02/20 04:37	10/05/20 17:02	5
6:2 FTS	98		22	11	ng/L		10/02/20 04:37	10/05/20 17:02	5
8:2 FTS	20		8.7	2.0	ng/L		10/02/20 04:37	10/05/20 17:02	5
10:2 FTS	<2.9		8.7	2.9	ng/L		10/02/20 04:37	10/05/20 17:02	5
Isotope Dilution	%Recovery Q	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-6:2 FTS	238 *		25 - 150				10/02/20 04:37	10/05/20 17:02	5
M2-8:2 FTS	172 *		25 - 150				10/02/20 04:37	10/05/20 17:02	5

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10/02/20 04:37 10/05/20 17:02 5 10/02/20 04:37 10/05/20 17:02

Job ID: 320-65202-1

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Client Sample ID: GP-4W

Date Collected: 09/29/20 08:55

Lab Sample ID: 320-65202-4

Matrix: Ground Water

Date Received: 10/01/20 09:40

Analyte	Result C	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	320		4.6	2.2	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluoroheptanoic acid (PFHpA)	220		1.9	0.23	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluorooctanoic acid (PFOA)	100		1.9	0.79	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluorononanoic acid (PFNA)	53		1.9	0.25	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluorodecanoic acid (PFDA)	38		1.9	0.29	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluoroundecanoic acid	3.2		1.9	1.0	ng/L		10/01/20 19:20	10/02/20 09:58	1
(PFUnA)									
Perfluorododecanoic acid (PFDoA)	1.9		1.9	0.51				10/02/20 09:58	1
Perfluorotridecanoic acid (PFTriA)	<1.2		1.9		ng/L			10/02/20 09:58	1
Perfluorotetradecanoic acid (PFTeA)	<0.68		1.9		ng/L			10/02/20 09:58	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.83		1.9		ng/L			10/02/20 09:58	1
Perfluorobutanesulfonic acid (PFBS)	4.0		1.9	0.19	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.87		1.9	0.87	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluoropentanesulfonic acid (PFPeS)	2.6		1.9	0.28	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluorohexanesulfonic acid (PFHxS)	89		1.9	0.53	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluoroheptanesulfonic Acid (PFHpS)	4.7		1.9	0.18	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluorononanesulfonic acid (PFNS)	<0.34		1.9	0.34	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluorodecanesulfonic acid (PFDS)	< 0.30		1.9	0.30	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluorooctanesulfonamide (FOSA)	1.5 J	J	1.9	0.91	ng/L		10/01/20 19:20	10/02/20 09:58	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	<1.1		4.6	1.1	ng/L		10/01/20 19:20	10/02/20 09:58	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	<1.2		4.6	1.2	ng/L		10/01/20 19:20	10/02/20 09:58	1
4:2 FTS `	<0.22		1.9	0.22	ng/L		10/01/20 19:20	10/02/20 09:58	1
6:2 FTS	6.6		4.6	2.3	ng/L		10/01/20 19:20	10/02/20 09:58	1
8:2 FTS	0.90 J	J	1.9	0.43	ng/L		10/01/20 19:20	10/02/20 09:58	1
NEtFOSA	<0.81		1.9	0.81	ng/L		10/01/20 19:20	10/02/20 09:58	1
NMeFOSA	<0.40		1.9	0.40	ng/L		10/01/20 19:20	10/02/20 09:58	1
NMeFOSE	<1.3		3.7	1.3	ng/L		10/01/20 19:20	10/02/20 09:58	1
NEtFOSE	< 0.79		1.9	0.79	ng/L		10/01/20 19:20	10/02/20 09:58	1
Perfluorododecanesulfonic acid (PFDoS)	<0.90		1.9	0.90	ng/L		10/01/20 19:20	10/02/20 09:58	1
F-53B Major	<0.22		1.9	0.22	ng/L		10/01/20 19:20	10/02/20 09:58	1
HFPO-DA (GenX)	<1.4		3.7	1.4	ng/L		10/01/20 19:20	10/02/20 09:58	1
F-53B Minor	<0.30		1.9	0.30	ng/L		10/01/20 19:20	10/02/20 09:58	1
10:2 FTS	<0.62		1.9	0.62	ng/L		10/01/20 19:20	10/02/20 09:58	1
DONA	< 0.37		1.9	0.37	ng/L		10/01/20 19:20	10/02/20 09:58	1
Isotope Dilution	%Recovery 0	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	60		25 - 150					10/02/20 09:58	1
13C4 PFHpA	95		25 - 150					10/02/20 09:58	1
13C4 PFOA	90		25 - 150					10/02/20 09:58	1
13C5 PFNA	91		25 - 150					10/02/20 09:58	1
13C2 PFDA	92		25 - 150					10/02/20 09:58	1
13C2 PFUnA	85		25 - 150				10/01/20 19:20		1

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Job ID: 320-65202-1

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Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

**Client Sample ID: GP-4W** Lab Sample ID: 320-65202-4

Date Collected: 09/29/20 08:55 **Matrix: Ground Water** 

Date Received: 10/01/20 09:40

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDoA	82		25 - 150	10/01/20 19:20	10/02/20 09:58	1
13C2 PFTeDA	71		25 - 150	10/01/20 19:20	10/02/20 09:58	1
13C3 PFBS	81		25 - 150	10/01/20 19:20	10/02/20 09:58	1
1802 PFHxS	87		25 - 150	10/01/20 19:20	10/02/20 09:58	1
13C8 FOSA	86		25 - 150	10/01/20 19:20	10/02/20 09:58	1
d3-NMeFOSAA	89		25 - 150	10/01/20 19:20	10/02/20 09:58	1
d5-NEtFOSAA	89		25 - 150	10/01/20 19:20	10/02/20 09:58	1
M2-6:2 FTS	157	*	25 - 150	10/01/20 19:20	10/02/20 09:58	1
M2-8:2 FTS	162	*	25 - 150	10/01/20 19:20	10/02/20 09:58	1
M2-4:2 FTS	136		25 - 150	10/01/20 19:20	10/02/20 09:58	1
d9-N-EtFOSE-M	35		10 - 120	10/01/20 19:20	10/02/20 09:58	1
d-N-MeFOSA-M	40		20 - 150	10/01/20 19:20	10/02/20 09:58	1
d7-N-MeFOSE-M	37		10 - 120	10/01/20 19:20	10/02/20 09:58	1
d-N-EtFOSA-M	32		20 - 150	10/01/20 19:20	10/02/20 09:58	1
13C2 PFHxDA	53		25 - 150	10/01/20 19:20	10/02/20 09:58	1
13C3 HFPO-DA	92		25 - 150	10/01/20 19:20	10/02/20 09:58	1

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	1100		19	4.6	ng/L		10/01/20 19:20	10/04/20 13:08	10
Perfluorohexanoic acid (PFHxA)	810		19	5.4	ng/L		10/01/20 19:20	10/04/20 13:08	10
Perfluorooctanesulfonic acid (PFOS)	390		19	5.0	ng/L		10/01/20 19:20	10/04/20 13:08	10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C5 PFPeA	89		25 - 150				10/01/20 19:20	10/04/20 13:08	10
13C2 PFHxA	90		25 - 150				10/01/20 19:20	10/04/20 13:08	10
13C4 PFOS	90		25 - 150				10/01/00 10 00	10/04/20 13:08	10

Job ID: 320-65202-1

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Client Sample ID: GP-4W-D

Date Collected: 09/29/20 08:55 Date Received: 10/01/20 09:40 Lab Sample ID: 320-65202-5

Matrix: Ground Water

Job ID: 320-65202-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	330		4.8	2.3	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluoroheptanoic acid (PFHpA)	220		1.9	0.24	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluorooctanoic acid (PFOA)	110		1.9	0.81	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluorononanoic acid (PFNA)	54		1.9	0.26	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluorodecanoic acid (PFDA)	36		1.9	0.30	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluoroundecanoic acid (PFUnA)	3.1		1.9	1.0	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluorododecanoic acid (PFDoA)	2.0		1.9	0.52	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluorotridecanoic acid (PFTriA)	<1.2		1.9	1.2	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluorotetradecanoic acid (PFTeA)	< 0.70		1.9	0.70	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.85		1.9	0.85	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluorobutanesulfonic acid (PFBS)	4.2		1.9	0.19	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.90		1.9		ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluoropentanesulfonic acid (PFPeS)	3.2		1.9		ng/L			10/02/20 10:07	1
Perfluorohexanesulfonic acid (PFHxS)	93		1.9	0.54	ng/L			10/02/20 10:07	1
Perfluoroheptanesulfonic Acid (PFHpS)	4.5		1.9		ng/L			10/02/20 10:07	
Perfluorononanesulfonic acid (PFNS)	<0.35		1.9		ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.9	0.30	ng/L		10/01/20 19:20	10/02/20 10:07	1
Perfluorooctanesulfonamide (FOSA)	1.4	J	1.9		ng/L		10/01/20 19:20	10/02/20 10:07	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	<1.1		4.8	1.1	ng/L			10/02/20 10:07	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	<1.2		4.8		ng/L			10/02/20 10:07	1
4:2 FTS	<0.23		1.9		ng/L			10/02/20 10:07	1
6:2 FTS	6.1		4.8		ng/L			10/02/20 10:07	1
8:2 FTS	0.96	J	1.9		ng/L			10/02/20 10:07	1
NEtFOSA	<0.83		1.9		ng/L			10/02/20 10:07	1
NMeFOSA	<0.41		1.9		ng/L			10/02/20 10:07	1
NMeFOSE	<1.3		3.8		ng/L		10/01/20 19:20	10/02/20 10:07	1
NEtFOSE	<0.81		1.9		ng/L			10/02/20 10:07	1
Perfluorododecanesulfonic acid (PFDoS)	<0.92		1.9	0.92			10/01/20 19:20	10/02/20 10:07	1
F-53B Major	<0.23		1.9	0.23	ng/L		10/01/20 19:20	10/02/20 10:07	1
HFPO-DA (GenX)	<1.4		3.8	1.4	ng/L		10/01/20 19:20	10/02/20 10:07	1
F-53B Minor	<0.30		1.9	0.30	ng/L			10/02/20 10:07	1
10:2 FTS	<0.64		1.9		ng/L		10/01/20 19:20	10/02/20 10:07	1
DONA	<0.38		1.9	0.38	ng/L		10/01/20 19:20	10/02/20 10:07	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	68		25 - 150				10/01/20 19:20	10/02/20 10:07	1
13C4 PFHpA	108		25 - 150				10/01/20 19:20	10/02/20 10:07	1
13C4 PFOA	96		25 - 150				10/01/20 19:20	10/02/20 10:07	1
13C5 PFNA	101		25 - 150				10/01/20 19:20	10/02/20 10:07	1
13C2 PFDA	105		25 - 150				10/01/20 19:20	10/02/20 10:07	1
13C2 PFUnA	98		25 - 150				10/01/20 19:20	10/02/20 10:07	1

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Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

**Client Sample ID: GP-4W-D** 

Date Collected: 09/29/20 08:55 Date Received: 10/01/20 09:40 Lab Sample ID: 320-65202-5

**Matrix: Ground Water** 

Job ID: 320-65202-1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDoA	92		25 - 150	10/01/20 19:20	10/02/20 10:07	1
13C2 PFTeDA	79		25 - 150	10/01/20 19:20	10/02/20 10:07	1
13C3 PFBS	90		25 - 150	10/01/20 19:20	10/02/20 10:07	1
1802 PFHxS	94		25 - 150	10/01/20 19:20	10/02/20 10:07	1
13C8 FOSA	99		25 - 150	10/01/20 19:20	10/02/20 10:07	1
d3-NMeFOSAA	93		25 - 150	10/01/20 19:20	10/02/20 10:07	1
d5-NEtFOSAA	95		25 - 150	10/01/20 19:20	10/02/20 10:07	1
M2-6:2 FTS	184	*	25 - 150	10/01/20 19:20	10/02/20 10:07	1
M2-8:2 FTS	171	*	25 - 150	10/01/20 19:20	10/02/20 10:07	1
M2-4:2 FTS	161	*	25 - 150	10/01/20 19:20	10/02/20 10:07	1
d9-N-EtFOSE-M	39		10 - 120	10/01/20 19:20	10/02/20 10:07	1
d-N-MeFOSA-M	49		20 - 150	10/01/20 19:20	10/02/20 10:07	1
d7-N-MeFOSE-M	37		10 - 120	10/01/20 19:20	10/02/20 10:07	1
d-N-EtFOSA-M	39		20 - 150	10/01/20 19:20	10/02/20 10:07	1
13C2 PFHxDA	66		25 - 150	10/01/20 19:20	10/02/20 10:07	1
13C3 HFPO-DA	107		25 - 150	10/01/20 19:20	10/02/20 10:07	1

Method: 537	(modified)	- Fluorinated Alky	/I Substances - DL
Mictilou. Joi	illouilleu,	- I luoilliateu Aik	/I Oubstalles - DL

Analyte Perfluoropentanoic acid (PFPeA)										
	Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Perfluoropentanoic acid (PFPeA)	1100		19	4.7	ng/L		10/01/20 19:20	10/04/20 13:18	10
	Perfluorohexanoic acid (PFHxA)	820		19	5.5	ng/L		10/01/20 19:20	10/04/20 13:18	10
	Perfluorooctanesulfonic acid (PFOS)	380		19	5.1	ng/L		10/01/20 19:20	10/04/20 13:18	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	90		25 - 150	10/01/20 19:20	10/04/20 13:18	10
13C2 PFHxA	91		25 - 150	10/01/20 19:20	10/04/20 13:18	10
13C4 PFOS	91		25 - 150	10/01/20 19:20	10/04/20 13:18	10

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Lab Sample ID: 320-65202-6

**Matrix: Ground Water** 

Job ID: 320-65202-1

Client Sample ID: GP-W-ER Date Collected: 09/29/20 15:05

Date Received: 10/01/20 09:40

Method: 537 (modified) - Fluorinated Alkyl Substances LOQ Analyte Result Qualifier **LOD** Unit Prepared Analyzed Dil Fac Perfluorobutanoic acid (PFBA) <2.2 4.7 2.2 ng/L 10/01/20 19:20 10/02/20 10:16 Perfluoropentanoic acid (PFPeA) < 0.46 1.9 0.46 ng/L 10/01/20 19:20 10/02/20 10:16 Perfluorohexanoic acid (PFHxA) <0.54 1.9 0.54 ng/L 10/01/20 19:20 10/02/20 10:16 Perfluoroheptanoic acid (PFHpA) < 0.23 1.9 0.23 ng/L 10/01/20 19:20 10/02/20 10:16 Perfluorooctanoic acid (PFOA) 0.79 ng/L 10/01/20 19:20 10/02/20 10:16 < 0.79 1.9 Perfluorononanoic acid (PFNA) < 0.25 19 0.25 ng/L 10/01/20 19:20 10/02/20 10:16 Perfluorodecanoic acid (PFDA) < 0.29 1.9 0.29 10/01/20 19:20 10/02/20 10:16 ng/L ng/L 10/01/20 19:20 10/02/20 10:16 Perfluoroundecanoic acid (PFUnA) < 1.0 19 1.0 Perfluorododecanoic acid (PFDoA) < 0.51 1.9 0.51 ng/L 10/01/20 19:20 10/02/20 10:16 Perfluorotridecanoic acid (PFTriA) <1.2 1.9 1.2 ng/L 10/01/20 19:20 10/02/20 10:16 Perfluorotetradecanoic acid (PFTeA) < 0.68 1.9 0.68 ng/L 10/01/20 19:20 10/02/20 10:16 Perfluoro-n-hexadecanoic acid < 0.83 0.83 ng/L 10/01/20 19:20 10/02/20 10:16 1.9 (PFHxDA) Perfluorobutanesulfonic acid (PFBS) 0.19 ng/L 10/01/20 19:20 10/02/20 10:16 < 0.19 1.9 10/01/20 19:20 10/02/20 10:16 Perfluoro-n-octadecanoic acid < 0.88 1.9 0.88 ng/L (PFODA) <0.28 1.9 10/01/20 19:20 10/02/20 10:16 Perfluoropentanesulfonic acid 0.28 ng/L (PFPeS) Perfluorohexanesulfonic acid (PFHxS) < 0.53 10/01/20 19:20 10/02/20 10:16 1.9 0.53 ng/L Perfluoroheptanesulfonic Acid 0.18 ng/L 10/01/20 19:20 10/02/20 10:16 < 0.18 1.9 (PFHpS) Perfluorooctanesulfonic acid (PFOS) < 0.50 1.9 0.50 ng/L 10/01/20 19:20 10/02/20 10:16 Perfluorononanesulfonic acid (PFNS) < 0.35 1.9 0.35 ng/L 10/01/20 19:20 10/02/20 10:16 Perfluorodecanesulfonic acid (PFDS) < 0.30 1.9 0.30 ng/L 10/01/20 19:20 10/02/20 10:16 Perfluorooctanesulfonamide (FOSA) < 0.91 1.9 0.91 ng/L 10/01/20 19:20 10/02/20 10:16 N-methylperfluorooctanesulfonamidoa <1.1 4.7 1.1 ng/L 10/01/20 19:20 10/02/20 10:16 cetic acid (NMeFOSAA) 10/01/20 19:20 10/02/20 10:16 N-ethylperfluorooctanesulfonamidoac <1.2 4.7 1.2 ng/L etic acid (NEtFOSAA) 4:2 FTS <0.22 1.9 0.22 ng/L 10/01/20 19:20 10/02/20 10:16 6:2 FTS <2.3 4.7 10/01/20 19:20 10/02/20 10:16 2.3 ng/L 8:2 FTS < 0.43 1.9 0.43 ng/L 10/01/20 19:20 10/02/20 10:16 **NEtFOSA** <0.81 1.9 0.81 ng/L 10/01/20 19:20 10/02/20 10:16 **NMeFOSA** 10/01/20 19:20 10/02/20 10:16 < 0.40 1.9 0.40 ng/L **NMeFOSE** <1.3 3.7 1.3 ng/L 10/01/20 19:20 10/02/20 10:16 10/01/20 19:20 10/02/20 10:16 **NEtFOSE** < 0.79 1.9 0.79 ng/L Perfluorododecanesulfonic acid < 0.90 1.9 0.90 ng/L 10/01/20 19:20 10/02/20 10:16 (PFDoS) F-53B Major <0.22 1.9 0.22 ng/L 10/01/20 19:20 10/02/20 10:16 HFPO-DA (GenX) <14 3.7 1.4 ng/L 10/01/20 19:20 10/02/20 10:16 F-53B Minor < 0.30 1.9 0.30 ng/L 10/01/20 19:20 10/02/20 10:16 10:2 FTS < 0.62 1.9 0.62 ng/L 10/01/20 19:20 10/02/20 10:16 DONA < 0.37 0.37 ng/L 10/01/20 19:20 10/02/20 10:16 1.9

Isotope Dilution	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	91	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C5 PFPeA	112	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C2 PFHxA	107	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C4 PFHpA	111	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C4 PFOA	106	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C5 PFNA	111	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C2 PFDA	110	25 - 150	10/01/20 19:20	10/02/20 10:16	1

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Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

**Client Sample ID: GP-W-ER** Lab Sample ID: 320-65202-6

Date Collected: 09/29/20 15:05 **Matrix: Ground Water** Date Received: 10/01/20 09:40

Isotope Dilution	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	110	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C2 PFDoA	92	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C2 PFTeDA	102	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C3 PFBS	106	25 - 150	10/01/20 19:20	10/02/20 10:16	1
1802 PFHxS	106	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C4 PFOS	102	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C8 FOSA	100	25 - 150	10/01/20 19:20	10/02/20 10:16	1
d3-NMeFOSAA	118	25 - 150	10/01/20 19:20	10/02/20 10:16	1
d5-NEtFOSAA	112	25 - 150	10/01/20 19:20	10/02/20 10:16	1
M2-6:2 FTS	143	25 - 150	10/01/20 19:20	10/02/20 10:16	1
M2-8:2 FTS	133	25 - 150	10/01/20 19:20	10/02/20 10:16	1
M2-4:2 FTS	139	25 - 150	10/01/20 19:20	10/02/20 10:16	1
d9-N-EtFOSE-M	55	10 - 120	10/01/20 19:20	10/02/20 10:16	1
d-N-MeFOSA-M	75	20 - 150	10/01/20 19:20	10/02/20 10:16	1
d7-N-MeFOSE-M	55	10 - 120	10/01/20 19:20	10/02/20 10:16	1
d-N-EtFOSA-M	69	20 - 150	10/01/20 19:20	10/02/20 10:16	1
13C2 PFHxDA	107	25 - 150	10/01/20 19:20	10/02/20 10:16	1
13C3 HFPO-DA	114	25 - 150	10/01/20 19:20	10/02/20 10:16	1

Job ID: 320-65202-1

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Method: 537 (modified) - Fluorinated Alkyl Substances

**Matrix: Ground Water Prep Type: Total/NA** 

			Perce	ent Isotope	Dilution Re	covery (Ac	ceptance L	.imits)	
		PFBA	PFPeA	PFHxA	C4PFHA	PFOA	PFNA	PFDA	PFUnA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
320-65202-1	GP-1W	29	69	80	96		103	95	110
320-65202-2	GP-3W	30			89	84	104	106	122
320-65202-3	GP-6W	29	62	72	90	95	115	102	126
320-65202-4 - DL	GP-4W		89	90					
320-65202-5 - DL	GP-4W-D		90	91					
			Perce	ent Isotope	Dilution Re	covery (Ac	ceptance L	.imits)	
		PFDoA	PFTDA	C3PFBS	PFHxS	PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
320-65202-1	GP-1W	111	74	136	143	148	97	97	122
320-65202-2	GP-3W	104	109	130	134	139	92	86	113
320-65202-3	GP-6W	118	111	116	121	128	101	116	131
320-65202-4 - DL	GP-4W					90			
320-65202-5 - DL	GP-4W-D					91			
			Perce	ent Isotope	Dilution Re	covery (Ac	ceptance L	.imits)	
		NEFM	dMeFOSA	NMFM	dEtFOSA	PFHxDA	HFPODA		
Lab Sample ID	Client Sample ID	(10-120)	(20-150)	(10-120)	(20-150)	(25-150)	(25-150)		
320-65202-1	GP-1W	63	68	66	65	80	111		
320-65202-2	GP-3W	60	57	61	63	91	99		
320-65202-3	GP-6W	49	70	53	60	98	96		
320-65202-4 - DL	GP-4W								
320-65202-5 - DL	GP-4W-D								

**Surrogate Legend** 

PFBA = 13C4 PFBA

PFPeA = 13C5 PFPeA

PFHxA = 13C2 PFHxA

C4PFHA = 13C4 PFHpA

PFOA = 13C4 PFOA

PFNA = 13C5 PFNA

PFDA = 13C2 PFDA

PFUnA = 13C2 PFUnA

PFDoA = 13C2 PFDoA

PFTDA = 13C2 PFTeDA

C3PFBS = 13C3 PFBS

PFHxS = 18O2 PFHxS PFOS = 13C4 PFOS

PFOSA = 13C8 FOSA

d3NMFOS = d3-NMeFOSAA

d5NEFOS = d5-NEtFOSAA

NEFM = d9-N-EtFOSE-M

dMeFOSA = d-N-MeFOSA-M

NMFM = d7-N-MeFOSE-M

dEtFOSA = d-N-EtFOSA-M

PFHxDA = 13C2 PFHxDA

HFPODA = 13C3 HFPO-DA

Eurofins TestAmerica, Sacramento

Job ID: 320-65202-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Ground Water Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

 Client Sample ID
 PFOA
 M262FTS
 M282FTS
 M242FTS

 GP-1W
 92
 159 \*
 104
 118

Surrogate Legend

Lab Sample ID 320-65202-1 - DL

PFOA = 13C4 PFOA M262FTS = M2-6:2 FTS M282FTS = M2-8:2 FTS M242FTS = M2-4:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Ground Water Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

**PFPeA** M262FTS M282FTS M242FTS **PFHxA** (25-150) (25-150) Lab Sample ID Client Sample ID (25-150)(25-150)(25-150)320-65202-2 - DL GP-3W 84 85 167 \* 94 107

**Surrogate Legend** 

PFPeA = 13C5 PFPeA PFHxA = 13C2 PFHxA M262FTS = M2-6:2 FTS M282FTS = M2-8:2 FTS M242FTS = M2-4:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Ground Water Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)
M262FTS M282FTS M242FTS

 Lab Sample ID
 Client Sample ID
 (25-150)
 (25-150)
 (25-150)

 320-65202-3 - DL
 GP-6W
 238 \*
 172 \*
 156 \*

Surrogate Legend

M262FTS = M2-6:2 FTS M282FTS = M2-8:2 FTS M242FTS = M2-4:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Ground Water Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	PFHxA	C4PFHA	PFOA	PFNA	PFDA	PFUnA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
320-65202-4	GP-4W	60			95	90	91	92	85
320-65202-5	GP-4W-D	68			108	96	101	105	98
320-65202-6	GP-W-ER	91	112	107	111	106	111	110	110
		Percent Isotope Dilution Recovery (Acceptance Limits)							

	Percent isotope Dilution Recovery (Acceptance Limits)									
		PFDoA	PFTDA	C3PFBS	PFHxS	PFOS	PFOSA	d3NMFOS	d5NEFOS	
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	
320-65202-4	GP-4W	82	71	81	87		86	89	89	
320-65202-5	GP-4W-D	92	79	90	94		99	93	95	
320-65202-6	GP-W-ER	92	102	106	106	102	100	118	112	

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Job ID: 320-65202-1

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10/8/2020

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Ground Water Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)								
		M262FTS	M282FTS	M242FTS	NEFM	dMeFOSA	NMFM	dEtFOSA	PFHxDA	
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(10-120)	(20-150)	(10-120)	(20-150)	(25-150)	
320-65202-4	GP-4W	157 *	162 *	136	35	40	37	32	53	
320-65202-5	GP-4W-D	184 *	171 *	161 *	39	49	37	39	66	
320-65202-6	GP-W-ER	143	133	139	55	75	55	69	107	
			Perce	ent Isotope	Dilution Re	ecovery (Ac	ceptance L	.imits)		
		HFPODA								
Lab Sample ID	Client Sample ID	(25-150)								
320-65202-4	GP-4W	92								
320-65202-5	GP-4W-D	107								
320-65202-6	GP-W-ER	114								
Surrogate Legend										

PFPeA = 13C5 PFPeA

PFHxA = 13C2 PFHxA

C4PFHA = 13C4 PFHpA

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PFOA = 13C4 PFOA

PFNA = 13C5 PFNA

PFDA = 13C2 PFDA

PFUnA = 13C2 PFUnA

PFDoA = 13C2 PFDoA

PFTDA = 13C2 PFTeDA

C3PFBS = 13C3 PFBS

PFHxS = 18O2 PFHxS

PFOS = 13C4 PFOS

PFOSA = 13C8 FOSA

d3NMFOS = d3-NMeFOSAA

d5NEFOS = d5-NEtFOSAA

M262FTS = M2-6:2 FTS

M282FTS = M2-8:2 FTS

M242FTS = M2-4:2 FTS

NEFM = d9-N-EtFOSE-M dMeFOSA = d-N-MeFOSA-M

NMFM = d7-N-MeFOSE-M

dEtFOSA = d-N-EtFOSA-M

PFHxDA = 13C2 PFHxDA

HFPODA = 13C3 HFPO-DA

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)								
		PFBA	PFPeA	PFHxA	C4PFHA	PFOA	PFNA	PFDA	PFUnA	
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	
LCS 320-417924/2-A	Lab Control Sample	98	99	98	103	93	102	100	94	
LCS 320-417940/2-A	Lab Control Sample	90	96	94	94	91	97	86	103	
LCSD 320-417924/3-A	Lab Control Sample Dup	102	107	105	109	100	107	106	100	
LCSD 320-417940/3-A	Lab Control Sample Dup	91	94	97	86	92	89	82	86	
MB 320-417924/1-A	Method Blank	94	96	97	95	91	95	94	92	
MB 320-417940/1-A	Method Blank	93	96	102	94	97	98	96	102	

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Job ID: 320-65202-1

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Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Matrix: Water** Prep Type: Total/NA

				•		ecovery (Ac	•	•	
		PFDoA	PFTDA	C3PFBS	PFHxS	PFOS	PFOSA	d3NMFOS	d5NEFOS
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)	(25-150)
LCS 320-417924/2-A	Lab Control Sample	92	93	95	95	97	92	106	102
LCS 320-417940/2-A	Lab Control Sample	75	86	89	89	95	84	88	90
LCSD 320-417924/3-A	Lab Control Sample Dup	100	98	101	102	100	98	117	109
LCSD 320-417940/3-A	Lab Control Sample Dup	92	83	92	93	93	84	91	93
MB 320-417924/1-A	Method Blank	90	85	92	95	92	90	98	96
MB 320-417940/1-A	Method Blank	80	86	92	91	94	90	90	97
			Perce	ent Isotope	Dilution Re	ecovery (Ac	ceptance L	.imits)	
		M262FTS	M282FTS	M242FTS	NEFM	dMeFOSA	NMFM	dEtFOSA	PFHxDA
Lab Sample ID	Client Sample ID	(25-150)	(25-150)	(25-150)	(10-120)	(20-150)	(10-120)	(20-150)	(25-150)
LCS 320-417924/2-A	Lab Control Sample	115	124	126	17	55	23	37	98
LCS 320-417940/2-A	Lab Control Sample	99	102	103	24	62	32	44	87
LCSD 320-417924/3-A	Lab Control Sample Dup	133	125	132	23	63	25	46	98
LCSD 320-417940/3-A	Lab Control Sample Dup	100	101	106	22	63	26	46	89
MB 320-417924/1-A	Method Blank	121	115	124	18	48	22	33	90
MB 320-417940/1-A	Method Blank	107	108	103	19	57	19	36	93
			Perce	ent Isotope	Dilution Re	ecovery (Ac	ceptance L	.imits)	
		HFPODA				, ,		,	
Lab Sample ID	Client Sample ID	(25-150)							
LCS 320-417924/2-A	Lab Control Sample	101							
LCS 320-417940/2-A	Lab Control Sample	93							
LCSD 320-417924/3-A	Lab Control Sample Dup	106							
LCSD 320-417940/3-A	Lab Control Sample Dup	97							
MB 320-417924/1-A	Method Blank	96							
MB 320-417940/1-A	Method Blank	94							

#### **Surrogate Legend**

PFBA = 13C4 PFBA

PFPeA = 13C5 PFPeA

PFHxA = 13C2 PFHxA

C4PFHA = 13C4 PFHpA

PFOA = 13C4 PFOA

PFNA = 13C5 PFNA

PFDA = 13C2 PFDA

PFUnA = 13C2 PFUnA

PFDoA = 13C2 PFDoA

PFTDA = 13C2 PFTeDA

C3PFBS = 13C3 PFBS PFHxS = 18O2 PFHxS

PFOS = 13C4 PFOS

PFOSA = 13C8 FOSA

d3NMFOS = d3-NMeFOSAA

d5NEFOS = d5-NEtFOSAA

M262FTS = M2-6:2 FTS

M282FTS = M2-8:2 FTS

M242FTS = M2-4:2 FTS

NEFM = d9-N-EtFOSE-M

dMeFOSA = d-N-MeFOSA-M

NMFM = d7-N-MeFOSE-M

dEtFOSA = d-N-EtFOSA-M

PFHxDA = 13C2 PFHxDA

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Job ID: 320-65202-1

Client: Foth Infrastructure & Environment, LLC
Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

HFPODA = 13C3 HFPO-DA

Job ID: 320-65202-1

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Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Job ID: 320-65202-1

#### Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample	ID: MB	320-417	'924/1-A
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**Matrix: Water** 

Isotope Dilution

13C4 PFBA

13C5 PFPeA

13C2 PFHxA

13C4 PFHpA

13C4 PFOA

**Analysis Batch: 418013** 

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 417924

Analysis Batch: 410013	МВ	MB						Prep Batch:	
Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fa
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluoropentanoic acid (PFPeA)	< 0.49		2.0	0.49	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorododecanoic acid (PFDoA)	< 0.55		2.0	0.55	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorotridecanoic acid (PFTriA)	<1.3		2.0	1.3	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorotetradecanoic acid (PFTeA)	< 0.73		2.0	0.73	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		2.0	0.89	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluoro-n-octadecanoic acid (PFODA)	<0.94		2.0	0.94	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorohexanesulfonic acid (PFHxS)	< 0.57		2.0	0.57	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluoroheptanesulfonic Acid PFHpS)	<0.19		2.0	0.19	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0		ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorononanesulfonic acid (PFNS)	< 0.37		2.0	0.37	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorodecanesulfonic acid (PFDS)	< 0.32		2.0	0.32	ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0		ng/L		10/01/20 19:20	10/02/20 09:31	
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	<1.2		5.0		ng/L		10/01/20 19:20	10/02/20 09:31	
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	<1.3		5.0		ng/L			10/02/20 09:31	
1:2 FTS	<0.24		2.0		ng/L		10/01/20 19:20	10/02/20 09:31	
3:2 FTS	<2.5		5.0		ng/L			10/02/20 09:31	
3:2 FTS	<0.46		2.0	0.46	-			10/02/20 09:31	
NEtFOSA	<0.87		2.0	0.87			10/01/20 19:20	10/02/20 09:31	
NMeFOSA	< 0.43		2.0	0.43	-			10/02/20 09:31	
NMeFOSE	<1.4		4.0		ng/L		10/01/20 19:20	10/02/20 09:31	
NEtFOSE	<0.85		2.0		ng/L		10/01/20 19:20	10/02/20 09:31	
Perfluorododecanesulfonic acid PFDoS)	<0.97		2.0		ng/L		10/01/20 19:20	10/02/20 09:31	
-53B Major	<0.24		2.0	0.24	-			10/02/20 09:31	
HFPO-DA (GenX)	<1.5		4.0	1.5	ng/L		10/01/20 19:20	10/02/20 09:31	
-53B Minor	<0.32		2.0	0.32	ng/L		10/01/20 19:20	10/02/20 09:31	
10:2 FTS	<0.67		2.0	0.67	ng/L		10/01/20 19:20	10/02/20 09:31	
DONA	<0.40		2.0	0.40	ng/L		10/01/20 19:20	10/02/20 09:31	
	MB	MB							

10/01/20 19:20 10/02/20 09:31 1 10/01/20 19:20 10/02/20 09:31 1

10/01/20 19:20 10/02/20 09:31

10/01/20 19:20 10/02/20 09:31

10/01/20 19:20 10/02/20 09:31

Prepared

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Analyzed

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Limits

25 - 150

25 - 150

25 - 150

25 - 150

25 - 150

%Recovery Qualifier

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97

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10/8/2020

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-417924/1-A

**Matrix: Water** 

**Analysis Batch: 418013** 

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 417924

Job ID: 320-65202-1

MB MB Isotope Dilution %Recovery Qualifier Limits Prepared Analyzed Dil Fac 13C5 PFNA 95 25 - 150 10/01/20 19:20 10/02/20 09:31 13C2 PFDA 94 25 - 150 10/01/20 19:20 10/02/20 09:31 13C2 PFUnA 92 25 - 150 10/01/20 19:20 10/02/20 09:31 13C2 PFDoA 90 25 - 150 10/01/20 19:20 10/02/20 09:31 13C2 PFTeDA 85 25 - 150 10/01/20 19:20 10/02/20 09:31 13C3 PFBS 92 25 - 150 10/01/20 19:20 10/02/20 09:31 1802 PFHxS 95 25 - 150 10/01/20 19:20 10/02/20 09:31 13C4 PFOS 92 25 - 150 10/01/20 19:20 10/02/20 09:31 13C8 FOSA 90 25 - 150 10/01/20 19:20 10/02/20 09:31 98 10/01/20 19:20 10/02/20 09:31 d3-NMeFOSAA 25 - 150 10/01/20 19:20 10/02/20 09:31 d5-NEtFOSAA 96 25 - 150 M2-6:2 FTS 25 - 150 10/01/20 19:20 10/02/20 09:31 121 10/01/20 19:20 10/02/20 09:31 M2-8:2 FTS 115 25 - 150 25 - 150 M2-4:2 FTS 124 10/01/20 19:20 10/02/20 09:31 d9-N-EtFOSE-M 10 - 120 10/01/20 19:20 10/02/20 09:31 18 d-N-MeFOSA-M 48 20 - 15010/01/20 19:20 10/02/20 09:31 d7-N-MeFOSE-M 22 10 - 120 10/01/20 19:20 10/02/20 09:31 d-N-EtFOSA-M 33 20 - 150 10/01/20 19:20 10/02/20 09:31 90 13C2 PFHxDA 25 - 150 10/01/20 19:20 10/02/20 09:31 13C3 HFPO-DA 96 25 - 150 10/01/20 19:20 10/02/20 09:31

Lab Sample ID: LCS 320-417924/2-A

**Matrix: Water** 

(PFHxS)

**Analysis Batch: 418013** 

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 417924

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Perfluorobutanoic acid (PFBA) 40.0 44.3 ng/L 111 76 - 136 Perfluoropentanoic acid (PFPeA) 40.0 39.5 99 71 - 131 ng/L 40.0 44.9 112 73 - 133 Perfluorohexanoic acid (PFHxA) ng/L Perfluoroheptanoic acid (PFHpA) 40.0 41.0 ng/L 102 72 - 132 ng/L Perfluorooctanoic acid (PFOA) 40.0 43.3 108 70 - 130 ng/L Perfluorononanoic acid (PFNA) 40.0 42.2 105 75 - 135 Perfluorodecanoic acid (PFDA) 40.0 43.8 ng/L 109 76 - 136 Perfluoroundecanoic acid 40.0 41.5 ng/L 104 68 - 128 (PFUnA) 40.0 43.2 108 71 - 131Perfluorododecanoic acid ng/L (PFDoA) Perfluorotridecanoic acid 40.0 38.9 ng/L 97 71 - 131 (PFTriA) 40.0 39.6 Perfluorotetradecanoic acid ng/L 70 - 130 (PFTeA) Perfluoro-n-hexadecanoic acid 40.0 39.3 ng/L 98 76 - 136 (PFHxDA) 39.2 Perfluorobutanesulfonic acid 35.4 ng/L 111 67 - 127(PFBS) 40.0 38.5 ng/L 96 58 - 145 Perfluoro-n-octadecanoic acid (PFODA) Perfluoropentanesulfonic acid 37.5 41.8 66 - 126 ng/L 111 (PFPeS) Perfluorohexanesulfonic acid 36.4 37.7 ng/L 104 59 - 119

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Lab Sample ID: LCS 320-417924/2-A

**Matrix: Water** 

d-N-MeFOSA-M

**Analysis Batch: 418013** 

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Job ID: 320-65202-1

Prep Batch: 417924 %Rec.

	Analysis Batch. 410010	Spike	1.00	LCS				%Rec.
	Analyte	Added		Qualifier	Unit	D	%Rec	Limits
	Perfluoroheptanesulfonic Acid	38.1	41.0	Quanner	ng/L		108	76 - 136
	(PFHpS)	30.1	41.0		TIG/L		100	70 - 130
	Perfluorooctanesulfonic acid	37.1	37.2		ng/L		100	70 - 130
	(PFOS)	07.1	07.2		119/1		100	70 - 100
	Perfluorononanesulfonic acid	38.4	41.3		ng/L		108	75 - 135
	(PFNS)				J			
	Perfluorodecanesulfonic acid	38.6	41.1		ng/L		107	71 - 131
	(PFDS)							
	Perfluorooctanesulfonamide	40.0	42.0		ng/L		105	73 - 133
	(FOSA)							
	N-methylperfluorooctanesulfona	40.0	44.0		ng/L		110	76 - 136
	midoacetic acid (NMeFOSAA)							
	N-ethylperfluorooctanesulfonami	40.0	43.7		ng/L		109	76 - 136
	doacetic acid (NEtFOSAA) 4:2 FTS	37.4	35.1		na/l		94	79 - 139
					ng/L			
	6:2 FTS	37.9	42.1		ng/L		111	59 - 175
	8:2 FTS	38.3	41.2		ng/L		108	75 - 135
	NEtFOSA	40.0	45.6		ng/L		114	78 - 138
	NMeFOSA	40.0	47.4		ng/L		118	67 - 154
	NMeFOSE	40.0	38.4		ng/L		96	70 - 130
	NEtFOSE	40.0	42.7		ng/L		107	71 - 131
	Perfluorododecanesulfonic acid	38.7	42.2		ng/L		109	67 - 127
	(PFDoS)							
	F-53B Major	37.3	40.4		ng/L		108	75 <sub>-</sub> 135
	HFPO-DA (GenX)	40.0	44.4		ng/L		111	51 - 173
	F-53B Minor	37.7	37.5		ng/L		100	54 - 114
	10:2 FTS	38.6	40.2		ng/L		104	64 - 142
	DONA	37.7	40.4		ng/L		107	79 - 139
н					-			

	LCS	LCS	
Isotope Dilution	%Recovery	Qualifier	Limits
13C4 PFBA	98		25 - 150
13C5 PFPeA	99		25 - 150
13C2 PFHxA	98		25 - 150
13C4 PFHpA	103		25 - 150
13C4 PFOA	93		25 - 150
13C5 PFNA	102		25 - 150
13C2 PFDA	100		25 - 150
13C2 PFUnA	94		25 - 150
13C2 PFDoA	92		25 - 150
13C2 PFTeDA	93		25 - 150
13C3 PFBS	95		25 - 150
1802 PFHxS	95		25 - 150
13C4 PFOS	97		25 - 150
13C8 FOSA	92		25 - 150
d3-NMeFOSAA	106		25 - 150
d5-NEtFOSAA	102		25 - 150
M2-6:2 FTS	115		25 - 150
M2-8:2 FTS	124		25 - 150
M2-4:2 FTS	126		25 - 150
d9-N-EtFOSE-M	17		10 - 120

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#### **QC Sample Results**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

#### Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-417924/2-A

Lab Sample ID: LCSD 320-417924/3-A

**Matrix: Water** 

**Matrix: Water** 

**Analysis Batch: 418013** 

**Analysis Batch: 418013** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Job ID: 320-65202-1

Prep Batch: 417924

LCS LCS

Isotope Dilution	%Recovery	Qualifier	Limits
d7-N-MeFOSE-M	23		10 - 120
d-N-EtFOSA-M	37		20 - 150
13C2 PFHxDA	98		25 - 150
13C3 HFPO-DA	101		25 - 150

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Prep Batch: 417924

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	40.0	44.9		ng/L		112	76 - 136	1	30
Perfluoropentanoic acid (PFPeA)	40.0	39.0		ng/L		98	71 - 131	1	30
Perfluorohexanoic acid (PFHxA)	40.0	45.9		ng/L		115	73 - 133	2	30
Perfluoroheptanoic acid (PFHpA)	40.0	40.5		ng/L		101	72 - 132	1	30
Perfluorooctanoic acid (PFOA)	40.0	43.3		ng/L		108	70 - 130	0	30
Perfluorononanoic acid (PFNA)	40.0	43.3		ng/L		108	75 - 135	3	30
Perfluorodecanoic acid (PFDA)	40.0	43.9		ng/L		110	76 - 136	0	30
Perfluoroundecanoic acid (PFUnA)	40.0	44.5		ng/L		111	68 - 128	7	30
Perfluorododecanoic acid (PFDoA)	40.0	44.8		ng/L		112	71 - 131	4	30

Perfluoronexanoic acid (PFHXA)	40.0	45.9	ng/L	115	73 - 133	2	30
Perfluoroheptanoic acid (PFHpA)	40.0	40.5	ng/L	101	72 - 132	1	30
Perfluorooctanoic acid (PFOA)	40.0	43.3	ng/L	108	70 - 130	0	30
Perfluorononanoic acid (PFNA)	40.0	43.3	ng/L	108	75 - 135	3	30
Perfluorodecanoic acid (PFDA)	40.0	43.9	ng/L	110	76 - 136	0	30
Perfluoroundecanoic acid	40.0	44.5	ng/L	111	68 - 128	7	30
(PFUnA)			Ü				
Perfluorododecanoic acid	40.0	44.8	ng/L	112	71 - 131	4	30
(PFDoA)							
Perfluorotridecanoic acid	40.0	40.5	ng/L	101	71 - 131	4	30
(PFTriA)	40.0	40.0	,,	404	70 400	•	00
Perfluorotetradecanoic acid	40.0	40.3	ng/L	101	70 - 130	2	30
(PFTeA) Perfluoro-n-hexadecanoic acid	40.0	45.9	ng/L	115	76 - 136	16	30
(PFHxDA)	40.0	43.9	TIG/L	113	70 - 130	10	30
Perfluorobutanesulfonic acid	35.4	39.4	ng/L	112	67 - 127	1	30
(PFBS)							
Perfluoro-n-octadecanoic acid	40.0	40.2	ng/L	100	58 - 145	4	30
(PFODA)							
Perfluoropentanesulfonic acid	37.5	40.9	ng/L	109	66 - 126	2	30
(PFPeS)							
Perfluorohexanesulfonic acid	36.4	37.9	ng/L	104	59 - 119	0	30
(PFHxS)	38.1	40.4	/I	400	76 - 136	4	30
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	40.4	ng/L	106	76 - 136	1	30
Perfluorooctanesulfonic acid	37.1	37.7	ng/L	102	70 - 130	1	30
(PFOS)	07.1	07.7	119/12	102	70-100	•	00
Perfluorononanesulfonic acid	38.4	41.8	ng/L	109	75 - 135	1	30
(PFNS)			-				
Perfluorodecanesulfonic acid	38.6	41.6	ng/L	108	71 - 131	1	30
(PFDS)							
Perfluorooctanesulfonamide	40.0	42.8	ng/L	107	73 - 133	2	30
(FOSA)	40.0	44.0			70 400		
N-methylperfluorooctanesulfona midoacetic acid (NMeFOSAA)	40.0	44.3	ng/L	111	76 - 136	1	30
N-ethylperfluorooctanesulfonami	40.0	44.6	ng/L	111	76 - 136	2	30
doacetic acid (NEtFOSAA)	40.0	44.0	119/12		70-100	_	00
4:2 FTS	37.4	38.8	ng/L	104	79 - 139	10	30
6:2 FTS	37.9	40.0	ng/L	105	59 - 175	5	30
8:2 FTS	38.3	43.7	ng/L	114	75 - 135	6	30
NEtFOSA	40.0	46.2	ng/L	116	78 - 138	1	30
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Eurofins TestAmerica, Sacramento

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Job ID: 320-65202-1

#### Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-417924/3-A

**Matrix: Water** 

**Analysis Batch: 418013** 

**Client Sample ID: Lab Control Sample Dup** 

**Prep Type: Total/NA** Prep Batch: 417924

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
NMeFOSA	40.0	41.1		ng/L		103	67 - 154	14	30
NMeFOSE	40.0	46.2		ng/L		115	70 - 130	18	30
NEtFOSE	40.0	42.0		ng/L		105	71 - 131	2	30
Perfluorododecanesulfonic acid (PFDoS)	38.7	42.6		ng/L		110	67 - 127	1	30
F-53B Major	37.3	42.5		ng/L		114	75 - 135	5	30
HFPO-DA (GenX)	40.0	44.8		ng/L		112	51 - 173	1	30
F-53B Minor	37.7	40.5		ng/L		107	54 - 114	8	30
10:2 FTS	38.6	47.9		ng/L		124	64 - 142	18	30
DONA	37.7	43.2		ng/L		115	79 - 139	7	30

	LCSD	LCSD	
Isotope Dilution	%Recovery	Qualifier	Limits
13C4 PFBA	102		25 - 150
13C5 PFPeA	107		25 - 150
13C2 PFHxA	105		25 - 150
13C4 PFHpA	109		25 - 150
13C4 PFOA	100		25 - 150
13C5 PFNA	107		25 - 150
13C2 PFDA	106		25 - 150
13C2 PFUnA	100		25 - 150
13C2 PFDoA	100		25 - 150
13C2 PFTeDA	98		25 - 150
13C3 PFBS	101		25 - 150
1802 PFHxS	102		25 - 150
13C4 PFOS	100		25 - 150
13C8 FOSA	98		25 - 150
d3-NMeFOSAA	117		25 - 150
d5-NEtFOSAA	109		25 - 150
M2-6:2 FTS	133		25 - 150
M2-8:2 FTS	125		25 - 150
M2-4:2 FTS	132		25 - 150
d9-N-EtFOSE-M	23		10 - 120
d-N-MeFOSA-M	63		20 - 150
d7-N-MeFOSE-M	25		10 - 120
d-N-EtFOSA-M	46		20 - 150
13C2 PFHxDA	98		25 - 150

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

**Prep Batch: 417940** 

**Analysis Batch: 418237** 

Lab Sample ID: MB 320-417940/1-A

13C3 HFPO-DA

**Matrix: Water** 

MR	MR

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Analyte	Result Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<2.4	5.0	2.4	ng/L		10/02/20 04:37	10/02/20 19:30	1
Perfluoropentanoic acid (PFPeA)	<0.49	2.0	0.49	ng/L		10/02/20 04:37	10/02/20 19:30	1
Perfluorohexanoic acid (PFHxA)	<0.58	2.0	0.58	ng/L		10/02/20 04:37	10/02/20 19:30	1
Perfluoroheptanoic acid (PFHpA)	<0.25	2.0	0.25	ng/L		10/02/20 04:37	10/02/20 19:30	1
Perfluorooctanoic acid (PFOA)	<0.85	2.0	0.85	ng/L		10/02/20 04:37	10/02/20 19:30	1
Perfluorononanoic acid (PFNA)	<0.27	2.0	0.27	ng/L		10/02/20 04:37	10/02/20 19:30	1

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#### QC Sample Results

LOQ

**LOD Unit** 

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

#### Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

MB MB

Result Qualifier

Lab Sample ID: MB 320-417940/1-A

**Matrix: Water** 

Analyte

8:2 FTS

**NEtFOSA** 

**NMeFOSA** 

**NMeFOSE** 

**NEtFOSE** 

(PFDoS)

F-53B Major

F-53B Minor

10:2 FTS

DONA

HFPO-DA (GenX)

Perfluorododecanesulfonic acid

**Analysis Batch: 418237** 

**Client Sample ID: Method Blank Prep Type: Total/NA** 

Prepared

Job ID: 320-65202-1

Prep Batch:	417940	
Analyzed	Dil Fac	

• • •							
Perfluorodecanoic acid (PFDA)	<0.31	2.0	0.31	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluoroundecanoic acid (PFUnA)	<1.1	2.0	1.1	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluorododecanoic acid (PFDoA)	<0.55	2.0	0.55	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluorotridecanoic acid (PFTriA)	<1.3	2.0	1.3	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluorotetradecanoic acid (PFTeA)	<0.73	2.0	0.73	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89	2.0	0.89	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluorobutanesulfonic acid (PFBS)	<0.20	2.0	0.20	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.94	2.0	0.94	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30	2.0	0.30	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57	2.0	0.57	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.19	2.0	0.19	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluorooctanesulfonic acid (PFOS)	<0.54	2.0	0.54	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluorononanesulfonic acid (PFNS)	<0.37	2.0	0.37	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluorodecanesulfonic acid (PFDS)	<0.32	2.0	0.32	ng/L	10/02/20 04:37	10/02/20 19:30	1
Perfluorooctanesulfonamide (FOSA)	<0.98	2.0	0.98	ng/L	10/02/20 04:37	10/02/20 19:30	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	<1.2	5.0	1.2	ng/L	10/02/20 04:37	10/02/20 19:30	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	<1.3	5.0	1.3	ng/L	10/02/20 04:37	10/02/20 19:30	1
4:2 FTS	<0.24	2.0	0.24	ng/L	10/02/20 04:37	10/02/20 19:30	1
6:2 FTS	<2.5	5.0	2.5	ng/L	10/02/20 04:37	10/02/20 19:30	1

2.0

2.0

2.0

4.0

2.0

2.0

2.0

4.0

2.0

2.0

2.0

0.46 ng/L

0.87 ng/L

0.43 ng/L

1.4 ng/L

0.85 ng/L

0.97 ng/L

0.24 ng/L

1.5 ng/L

0.32 ng/L

0.67 ng/L

0.40 ng/L

<0.40	
MB	MB

< 0.46

<0.87

< 0.43

<1.4

< 0.85

< 0.97

<0.24

<1.5

< 0.32

< 0.67

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	93		25 - 150	10/02/20 04:37	10/02/20 19:30	1
13C5 PFPeA	96		25 - 150	10/02/20 04:37	10/02/20 19:30	1
13C2 PFHxA	102		25 - 150	10/02/20 04:37	10/02/20 19:30	1
13C4 PFHpA	94		25 - 150	10/02/20 04:37	10/02/20 19:30	1
13C4 PFOA	97		25 - 150	10/02/20 04:37	10/02/20 19:30	1
13C5 PFNA	98		25 - 150	10/02/20 04:37	10/02/20 19:30	1
13C2 PFDA	96		25 - 150	10/02/20 04:37	10/02/20 19:30	1
13C2 PFUnA	102		25 - 150	10/02/20 04:37	10/02/20 19:30	1
13C2 PFDoA	80		25 - 150	10/02/20 04:37	10/02/20 19:30	1
13C2 PFTeDA	86		25 - 150	10/02/20 04:37	10/02/20 19:30	1
13C3 PFBS	92		25 - 150	10/02/20 04:37	10/02/20 19:30	1

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10/02/20 04:37 10/02/20 19:30

10/02/20 04:37 10/02/20 19:30

10/02/20 04:37 10/02/20 19:30

10/02/20 04:37 10/02/20 19:30

10/02/20 04:37 10/02/20 19:30

10/02/20 04:37 10/02/20 19:30

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10/02/20 04:37 10/02/20 19:30

10/02/20 04:37 10/02/20 19:30

10/02/20 04:37 10/02/20 19:30

10/02/20 04:37 10/02/20 19:30

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Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

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Lab Sample ID: MB 320-417940/1-A

**Matrix: Water** 

**Analysis Batch: 418237** 

**Client Sample ID: Method Blank Prep Type: Total/NA** 

**Prep Batch: 417940** 

Job ID: 320-65202-1

MB MB Isotope Dilution %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1802 PFHxS 91 25 - 150 10/02/20 04:37 10/02/20 19:30 13C4 PFOS 94 25 - 150 10/02/20 04:37 10/02/20 19:30 13C8 FOSA 90 25 - 150 10/02/20 04:37 10/02/20 19:30 d3-NMeFOSAA 90 25 - 150 10/02/20 04:37 10/02/20 19:30 10/02/20 04:37 10/02/20 19:30 d5-NEtFOSAA 97 25 - 150 M2-6:2 FTS 107 25 - 150 10/02/20 04:37 10/02/20 19:30 M2-8:2 FTS 108 25 - 150 10/02/20 04:37 10/02/20 19:30 M2-4:2 FTS 103 25 - 150 10/02/20 04:37 10/02/20 19:30 d9-N-EtFOSE-M 19 10 - 120 10/02/20 04:37 10/02/20 19:30 57 d-N-MeFOSA-M 20 - 150 10/02/20 04:37 10/02/20 19:30 d7-N-MeFOSE-M 19 10 - 120 10/02/20 04:37 10/02/20 19:30 d-N-EtFOSA-M 36 20 - 150 10/02/20 04:37 10/02/20 19:30 13C2 PFHxDA 93 25 - 150 10/02/20 04:37 10/02/20 19:30

25 - 150

Lab Sample ID: LCS 320-417940/2-A

13C3 HFPO-DA

**Client Sample ID: Lab Control Sample** 

10/02/20 04:37 10/02/20 19:30

Matrix: Water Analysis Batch: 418237						Prep Type: Total/NA Prep Batch: 417940
•	Spike	LCS	LCS			%Rec.
Analyte	Added	Result	Qualifier	Unit	D %Rec	Limits
Perfluorobutanoic acid (PFBA)	40.0	43.8		ng/L		76 - 136
Perfluoropentanoic acid (PFPeA)	40.0	39.3		ng/L	98	71 - 131
Perfluorohexanoic acid (PFHxA)	40.0	44.3		ng/L	111	73 - 133
Perfluoroheptanoic acid (PFHpA)	40.0	38.4		ng/L	96	72 - 132
Perfluorooctanoic acid (PFOA)	40.0	42.2		ng/L	106	70 - 130
Perfluorononanoic acid (PFNA)	40.0	45.8		ng/L	115	75 - 135
Perfluorodecanoic acid (PFDA)	40.0	42.0		ng/L	105	76 - 136
Perfluoroundecanoic acid (PFUnA)	40.0	35.9		ng/L	90	68 - 128
Perfluorododecanoic acid (PFDoA)	40.0	55.1	*	ng/L	138	71 - 131
Perfluorotridecanoic acid (PFTriA)	40.0	38.1		ng/L	95	71 - 131
Perfluorotetradecanoic acid (PFTeA)	40.0	41.0		ng/L	102	70 - 130
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	38.7		ng/L	97	76 - 136
Perfluorobutanesulfonic acid (PFBS)	35.4	38.7		ng/L	109	67 - 127
Perfluoro-n-octadecanoic acid (PFODA)	40.0	36.3		ng/L	91	58 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.5	41.7		ng/L	111	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	36.4	37.4		ng/L	103	59 - 119
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	40.3		ng/L	106	76 - 136
Perfluorooctanesulfonic acid (PFOS)	37.1	36.8		ng/L	99	70 - 130
Perfluorononanesulfonic acid (PFNS)	38.4	40.6		ng/L	106	75 - 135

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Job ID: 320-65202-1

#### Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample	D: LCS	320-417	'940/2-A
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**Matrix: Water** 

**Analysis Batch: 418237** 

Client S

	Spike	LCS L	.CS		%Rec.	
Analyte	Added	Result C	Qualifier Unit	D %Rec	Limits	
Perfluorodecanesulfonic acid	38.6	38.0	ng/L	99	71 - 131	
(PFDS)						
Perfluorooctanesulfonamide	40.0	42.1	ng/L	105	73 - 133	
(FOSA)						
N-methylperfluorooctanesulfona	40.0	43.6	ng/L	109	76 - 136	
midoacetic acid (NMeFOSAA)						
N-ethylperfluorooctanesulfonami	40.0	42.7	ng/L	107	76 - 136	
doacetic acid (NEtFOSAA)	a= .					
4:2 FTS	37.4	36.3	ng/L	97	79 - 139	
6:2 FTS	37.9	39.2	ng/L	103	59 - 175	
8:2 FTS	38.3	39.6	ng/L	103	75 - 135	
NEtFOSA	40.0	44.6	ng/L	112	78 - 138	
NMeFOSA	40.0	45.2	ng/L	113	67 - 154	
NMeFOSE	40.0	31.9	ng/L	80	70 - 130	
NEtFOSE	40.0	39.6	ng/L	99	71 - 131	
Perfluorododecanesulfonic acid	38.7	34.5	ng/L	89	67 - 127	
(PFDoS)						
F-53B Major	37.3	39.0	ng/L	105	75 - 135	
HFPO-DA (GenX)	40.0	42.5	ng/L	106	51 - 173	
F-53B Minor	37.7	37.0	ng/L	98	54 - 114	
10:2 FTS	38.6	42.9	ng/L	111	64 - 142	
DONA	37.7	42.2	ng/L	112	79 - 139	
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	LCS	LCS	
Isotope Dilution	%Recovery	Qualifier	Limits
13C4 PFBA	90		25 - 150
13C5 PFPeA	96		25 - 150
13C2 PFHxA	94		25 - 150
13C4 PFHpA	94		25 - 150
13C4 PFOA	91		25 - 150
13C5 PFNA	97		25 - 150
13C2 PFDA	86		25 - 150
13C2 PFUnA	103		25 - 150
13C2 PFDoA	75		25 - 150
13C2 PFTeDA	86		25 - 150
13C3 PFBS	89		25 - 150
1802 PFHxS	89		25 - 150
13C4 PFOS	95		25 - 150
13C8 FOSA	84		25 - 150
d3-NMeFOSAA	88		25 - 150
d5-NEtFOSAA	90		25 - 150
M2-6:2 FTS	99		25 - 150
M2-8:2 FTS	102		25 - 150
M2-4:2 FTS	103		25 - 150
d9-N-EtFOSE-M	24		10 - 120
d-N-MeFOSA-M	62		20 - 150
d7-N-MeFOSE-M	32		10 - 120
d-N-EtFOSA-M	44		20 - 150
13C2 PFHxDA	87		25 - 150
13C3 HFPO-DA	93		25 - 150

Sample	ID: Lab Contr	ol Sample
	Prep Type	: Total/NA
	Prep Bato	h: 417940

rep	Type: Total/NA
rep	Batch: 417940
Rec	

#### **QC Sample Results**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

### Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Client Sample ID: Lab Control Sample Dup** 

Job ID: 320-65202-1

Lab Sample ID: LCSD 320-417940/3-A **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 418237							Prep ly Prep Ba		
Analysis Batch. 410207	Spike	LCSD	LCSD				%Rec.	aton. 4	RPD
Analyte	Added		Qualifier	Unit	D %F	Rec	Limits	RPD	Limit
Perfluorobutanoic acid (PFBA)	40.0	42.6		ng/L		106	76 - 136	3	30
Perfluoropentanoic acid (PFPeA)	40.0	38.9		ng/L		97	71 - 131	1	30
Perfluorohexanoic acid (PFHxA)	40.0	43.2		ng/L		108	73 - 133	2	30
Perfluoroheptanoic acid (PFHpA)	40.0	44.4		ng/L		111	72 - 132	14	30
Perfluorooctanoic acid (PFOA)	40.0	42.6		ng/L		107	70 - 130	1	30
Perfluorononanoic acid (PFNA)	40.0	45.0		_		113	75 - 135	2	30
				ng/L					30
Perfluorodecanoic acid (PFDA)	40.0	42.3		ng/L		106	76 - 136	1	
Perfluoroundecanoic acid (PFUnA)	40.0	46.1		ng/L		115	68 - 128	25	30
Perfluorododecanoic acid (PFDoA)	40.0	40.5	*	ng/L		101	71 - 131	31	30
Perfluorotridecanoic acid (PFTriA)	40.0	33.1		ng/L		83	71 - 131	14	30
Perfluorotetradecanoic acid (PFTeA)	40.0	47.8		ng/L	•	120	70 - 130	15	30
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	32.8		ng/L		82	76 - 136	16	30
Perfluorobutanesulfonic acid (PFBS)	35.4	37.1		ng/L		105	67 - 127	4	30
Perfluoro-n-octadecanoic acid (PFODA)	40.0	37.0		ng/L		93	58 - 145	2	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	41.2		ng/L		110	66 - 126	1	30
Perfluorohexanesulfonic acid	36.4	34.9		ng/L		96	59 - 119	7	30
(PFHxS) Perfluoroheptanesulfonic Acid	38.1	41.0		ng/L		108	76 - 136	2	30
(PFHpS)	30.1	41.0		Hg/L		100	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	37.1	38.3		ng/L		103	70 - 130	4	30
Perfluorononanesulfonic acid	38.4	42.2		ng/L		110	75 - 135	4	30
(PFNS) Perfluorodecanesulfonic acid	38.6	41.1		ng/L		107	71 - 131	8	30
(PFDS) Perfluorooctanesulfonamide	40.0	41.1		ng/L		103	73 - 133	2	30
(FOSA)									
N-methylperfluorooctanesulfona midoacetic acid (NMeFOSAA)	40.0	42.1		ng/L		105	76 - 136	3	30
N-ethylperfluorooctanesulfonami doacetic acid (NEtFOSAA)	40.0	40.4		ng/L	•	101	76 - 136	6	30
4:2 FTS	37.4	35.5		ng/L		95	79 - 139	2	30
6:2 FTS	37.9	38.6		ng/L		102	59 - 175	2	30
8:2 FTS	38.3	39.5		ng/L		103	75 - 135	0	30
NEtFOSA	40.0	42.0		ng/L		105	78 - 138	6	30
NMeFOSA	40.0	42.2		ng/L		105	67 - 154	7	30
NMeFOSE	40.0	35.7				89	70 - 130	11	30
NEtFOSE				ng/L	,				
Perfluorododecanesulfonic acid	40.0 38.7	42.1 36.6		ng/L ng/L		105 95	71 - 131 67 - 127	6	30
(PFDoS)	27.0	40.0		ng/l		100	7E 40E	4	20
F-53B Major	37.3	40.8		ng/L		109	75 <sub>-</sub> 135	4	30
HFPO-DA (GenX)	40.0	41.4		ng/L		104	51 - 173	3	30
F-53B Minor	37.7	38.5		ng/L		102	54 - 114	4	30
10:2 FTS	38.6	42.1		ng/L		109	64 - 142	2	30
DONA	37.7	41.7		ng/L		111	79 - 139	1	30

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10/8/2020

### **QC Sample Results**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Job ID: 320-65202-1

### Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

	LCSD LCSD	
Isotope Dilution %	Recovery Quality	ier Limits
13C4 PFBA	91	25 - 150
13C5 PFPeA	94	25 - 150
13C2 PFHxA	97	25 - 150
13C4 PFHpA	86	25 - 150
13C4 PFOA	92	25 - 150
13C5 PFNA	89	25 - 150
13C2 PFDA	82	25 - 150
13C2 PFUnA	86	25 - 150
13C2 PFDoA	92	25 - 150
13C2 PFTeDA	83	25 - 150
13C3 PFBS	92	25 - 150
1802 PFHxS	93	25 - 150
13C4 PFOS	93	25 - 150
13C8 FOSA	84	25 - 150
d3-NMeFOSAA	91	25 - 150
d5-NEtFOSAA	93	25 - 150
M2-6:2 FTS	100	25 - 150
M2-8:2 FTS	101	25 - 150
M2-4:2 FTS	106	25 - 150
d9-N-EtFOSE-M	22	10 - 120
d-N-MeFOSA-M	63	20 - 150
d7-N-MeFOSE-M	26	10 - 120
d-N-EtFOSA-M	46	20 - 150
13C2 PFHxDA	89	25 - 150
13C3 HFPO-DA	97	25 - 150

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# **QC Association Summary**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

# LCMS

# **Prep Batch: 417924**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-65202-4	GP-4W	Total/NA	Ground Water	3535	
320-65202-4 - DL	GP-4W	Total/NA	<b>Ground Water</b>	3535	
320-65202-5	GP-4W-D	Total/NA	<b>Ground Water</b>	3535	
320-65202-5 - DL	GP-4W-D	Total/NA	Ground Water	3535	
320-65202-6	GP-W-ER	Total/NA	<b>Ground Water</b>	3535	
MB 320-417924/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-417924/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-417924/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

# **Prep Batch: 417940**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-65202-1	GP-1W	Total/NA	Ground Water	3535	
320-65202-1 - DL	GP-1W	Total/NA	<b>Ground Water</b>	3535	
320-65202-2	GP-3W	Total/NA	<b>Ground Water</b>	3535	
320-65202-2 - DL	GP-3W	Total/NA	Ground Water	3535	
320-65202-3 - DL	GP-6W	Total/NA	<b>Ground Water</b>	3535	
320-65202-3	GP-6W	Total/NA	<b>Ground Water</b>	3535	
MB 320-417940/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-417940/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-417940/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

## **Analysis Batch: 418013**

Lab Sample ID 320-65202-4	Client Sample ID GP-4W	Prep Type Total/NA	Matrix Ground Water	Method 537 (modified)	Prep Batch 417924
320-65202-5	GP-4W-D	Total/NA	Ground Water	537 (modified)	417924
320-65202-6	GP-W-ER	Total/NA	Ground Water	537 (modified)	417924
MB 320-417924/1-A	Method Blank	Total/NA	Water	537 (modified)	417924
LCS 320-417924/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	417924
LCSD 320-417924/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	417924

## **Analysis Batch: 418237**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-65202-1	GP-1W	Total/NA	Ground Water	537 (modified)	417940
320-65202-2	GP-3W	Total/NA	<b>Ground Water</b>	537 (modified)	417940
320-65202-3	GP-6W	Total/NA	<b>Ground Water</b>	537 (modified)	417940
MB 320-417940/1-A	Method Blank	Total/NA	Water	537 (modified)	417940
LCS 320-417940/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	417940
LCSD 320-417940/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	417940

## **Analysis Batch: 418556**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-65202-4 - DL	GP-4W	Total/NA	Ground Water	537 (modified)	417924
320-65202-5 - DL	GP-4W-D	Total/NA	Ground Water	537 (modified)	417924

## **Analysis Batch: 418842**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-65202-3 - DL	GP-6W	Total/NA	Ground Water	537 (modified)	417940

# **Analysis Batch: 419475**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-65202-1 - DL	GP-1W	Total/NA	Ground Water	537 (modified)	417940

Eurofins TestAmerica, Sacramento

Job ID: 320-65202-1

# **QC Association Summary**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Job ID: 320-65202-1

# **LCMS (Continued)**

# **Analysis Batch: 419475 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-65202-2 - DL	GP-3W	Total/NA	Ground Water	537 (modified)	417940

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Client Sample ID: GP-1W

Date Collected: 09/29/20 12:25 Date Received: 10/01/20 09:40 Lab Sample ID: 320-65202-1

**Matrix: Ground Water** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3535			274.1 mL	10.0 mL	417940	10/02/20 04:37	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			418237	10/02/20 21:28	RS1	TAL SAC
Total/NA	Prep	3535	DL		274.1 mL	10.0 mL	417940	10/02/20 04:37	EG	TAL SAC
Total/NA	Analysis	537 (modified)	DL	100			419475	10/07/20 11:36	RS1	TAL SAC

Client Sample ID: GP-3W

Date Collected: 09/29/20 14:25

Lab Sample ID: 320-65202-2

Matrix: Ground Water

Date Received: 10/01/20 09:40

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3535			283.8 mL	10.0 mL	417940	10/02/20 04:37	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			418237	10/02/20 21:38	RS1	TAL SAC
Total/NA	Prep	3535	DL		283.8 mL	10.0 mL	417940	10/02/20 04:37	EG	TAL SAC
Total/NA	Analysis	537 (modified)	DL	100			419475	10/07/20 11:45	RS1	TAL SAC

Client Sample ID: GP-6W

Date Collected: 09/29/20 10:45

Lab Sample ID: 320-65202-3

Matrix: Ground Water

Date Received: 10/01/20 09:40

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3535			286 mL	10.0 mL	417940	10/02/20 04:37	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			418237	10/02/20 21:47	RS1	TAL SAC
Total/NA	Prep	3535	DL		286 mL	10.0 mL	417940	10/02/20 04:37	EG	TAL SAC
Total/NA	Analysis	537 (modified)	DL	5			418842	10/05/20 17:02	K1S	TAL SAC

Client Sample ID: GP-4W

Date Collected: 09/29/20 08:55

Lab Sample ID: 320-65202-4

Matrix: Ground Water

Date Received: 10/01/20 09:40

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3535			269.2 mL	10.00 mL	417924	10/01/20 19:20	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			418013	10/02/20 09:58	S1M	TAL SAC
Total/NA	Prep	3535	DL		269.2 mL	10.00 mL	417924	10/01/20 19:20	VP	TAL SAC
Total/NA	Analysis	537 (modified)	DL	10			418556	10/04/20 13:08	D1R	TAL SAC

Client Sample ID: GP-4W-D

Date Collected: 09/29/20 08:55

Lab Sample ID: 320-65202-5

Matrix: Ground Water

Date Received: 10/01/20 09:40

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3535			262.3 mL	10.00 mL	417924	10/01/20 19:20	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			418013	10/02/20 10:07	S1M	TAL SAC
Total/NA	Prep	3535	DL		262.3 mL	10.00 mL	417924	10/01/20 19:20	VP	TAL SAC
Total/NA	Analysis	537 (modified)	DL	10			418556	10/04/20 13:18	D1R	TAL SAC

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# **Lab Chronicle**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Lab Sample ID: 320-65202-6

**Client Sample ID: GP-W-ER** Date Collected: 09/29/20 15:05 **Matrix: Ground Water** 

Date Received: 10/01/20 09:40

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3535			268.1 mL	10.00 mL	417924	10/01/20 19:20	VP	TAL SAC
Total/NA	Analysis	537 (modified)		1			418013	10/02/20 10:16	S1M	TAL SAC

#### **Laboratory References:**

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Job ID: 320-65202-1

# **Accreditation/Certification Summary**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

# **Laboratory: Eurofins TestAmerica, Sacramento**

The accreditations/certifications listed below are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Wisconsin	State	998204680	08-31-21

Job ID: 320-65202-1

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# **Method Summary**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

#### **Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Job ID: 320-65202-1

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# **Sample Summary**

Client: Foth Infrastructure & Environment, LLC

Project/Site: PFAS, Fincantieri Marinette Marine 19M106.20

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-65202-1	GP-1W	Ground Water	09/29/20 12:25	10/01/20 09:40	
320-65202-2	GP-3W	Ground Water	09/29/20 14:25	10/01/20 09:40	
320-65202-3	GP-6W	Ground Water	09/29/20 10:45	10/01/20 09:40	
320-65202-4	GP-4W	Ground Water	09/29/20 08:55	10/01/20 09:40	
320-65202-5	GP-4W-D	Ground Water	09/29/20 08:55	10/01/20 09:40	
320-65202-6	GP-W-ER	Ground Water	09/29/20 15:05	10/01/20 09:40	

Job ID: 320-65202-1

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Foth

Ref:

Dep:

Date: 15Sep20 Wgt: 20.00 LBS SHIPPING: SPECIAL: HANDLING: 0.00 0.00

DV:

0.00 TOTAL:

0.00 0.00

Svcs: PRIORITY OVERNIGHT

TRCK: 7125 4943 2140

#### CHAIN-OF-CUSTODY / Analytical Request Document

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

FMM B34/B35 Supplemental Yard Inv. Test America invoices@foth.com roject #: 2417 Bond St., University Park, IL 60484 19M 106 20 2121 Innovation Ct Groundwater Sampling Task: ite Address: Fincantieri Marinette Marine ity/State: De Pere WI 54115 920-496-6687 Turn Around Time: or 7 - day Standard 1600 Elv Street Marinette, WI 54143 Lab PM: ity-State-Zip oth Project No Sandie Fredrick 19M106.20 QC level Required: Standard Level II Report ite PM Name 920-261-1660 Denis Roznowski end EDD to: CC Hard copy report ve.Lehrke@foth.com (920) 496-6756 Sandra.Fredrick@testamericainc.com Sampler Name: Rick Panosh, Bob Meller denis.roznowski@foth.com; rick.panosh@foth.com; CC Electronic reports (lab steve.lehrke@foth.com, report and data in C=COMP SAMPLE DATE PFAS, List (36 PFAS, List (36 MATRIX CODE CONTAINE Comments/Lab Sample I.D. SAMPLE ID SAMPLE G=GRAB Samples IDs MUST BE UNIQUE LOCATION TEM# #0F GP-1W GW G 9/29/20 1225 2 GP-1W 2 GP-3W GW G 2 GP-3W 9/29/20 1425 3 GP-6W GP-6W GW G 9/29/20 1045 4 GP-4W GP-4W GW G 9/29/20 0855 5 GP-4W-D GP-4W GW G 9/29/20 0855 G 2 X Water 9/29/20 1505 GP-W-ER **Equip Rinsate** Sample Receipt Conditions dditional Comments/Special Instructions Samples are unfiltered. Y/N Y/N Y/N Y/N Y/N Y/N Y/N YIN Y/N Y/N SAMPLER NAME AND SIGNATURE SHIPPING INFO FedEx racking #: 7125 4943 2140

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1 of 1

Client: Foth Infrastructure & Environment, LLC

Job Number: 320-65202-1

Login Number: 65202

List Source: Eurofins TestAmerica, Sacramento

List Number: 1

Creator: Thompson, Sarah W

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	991279
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# **Attachment 5**

# Notification for Hazardous Substance Discharge Form (Form 4400-225)

State of Wisconsin Department of Natural Resources PO Box 7921, Madison WI 53707-7921 dnr.wi.gov

necessary.

# **Notification For Hazardous Substance Discharge** (Non-Emergency Only)

Form 4400-225 (R 02/20)

Page 1 of 2

#### Emergency Discharges / Spills should be reported via the 24-Hour Hotline: 1-800-943-0003

Notice: Hazardous substance discharges must be reported immediately according to s. 292.11 Wis, Stats. Non-emergency hazardous substance discharges may be reported by telefaxing or e-mailing a completed report to the Department, or calling or visiting a Department office in person. If you choose to notify the Department by telefax or by email, you should use this form to be sure that all necessary information is included. However, use of this form is not mandatory. Under s. 292.99, Wis. Stats., the penalty for violating the reporting requirements of ch. 292 Wis. Stats., shall be no less than \$10 nor more than \$5000 for each violation. Each day of continued violation is a separate offense. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than program administration. However, information submitted on this form may also be made available to requesters under Wisconsin's Open Records Law (ss. 19.31 – 19.39, Wis. Stats.).

Confirmatory laboratory data should be included with this form, to assist the DNR in processing this Hazardous Substance Release

Notification. Complete this form. TYPE or PRINT LEGIBLY. NOTIFY appropriate DNR region (see next page) IMMEDIATELY upon discovery of a potential release from (check one): O Underground Petroleum Storage Tank System (additional information may be required for Item 6 below) Aboveground Petroleum Storage Tank System O Dry Cleaner Facility ( ) Other - Describe: Residuals detected in soil & shallow groundwater under paved parking and access areas on active industrial property. ATTN DNR: R & R Program Associate Date DNR Notified: 1. Discharge Reported By Name Firm Phone Number (include area code) Robert Meller (920) 497-2500 Foth Infrastructure & Environment, LLC Mailing Address Email P.O. Box 5126, De Pere, WI 54115-5126 Bob.Meller@Foth.com 2. Site Information Name of site at which discharge occurred. Include local name of site/business, not responsible party name, unless a residence/vacant property. Fincantieri Marinette Marine Location: Include street address, not PO Box. If no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60. 1600 Ely Street Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city. Marinette County Legal Description: WTM: NE 1/4 of SE 1/4 Section 6 , Town 30 N, Range 24 OE OW X 707233 516492 Marinette 3. Responsible Party (RP) and/or RP Representative Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary. Fincantieri Marinette Marine A local governmental unit claiming an exemption from state Spill Law and Solid Waste Management responsibilities for the discharge being reported, per Wis. Stat. §§ 292.11(9)(e) and 292.23, should: 1) check this box; 2) review DNR publication RR-055; and 3) provide documentation to DNR that demonstrates compliance with the statutory requirements of the liability exemptions. Local governmental units may also request a fee-based liability clarification letter from DNR by using DNR Form 4400-237. Contact Person Name (if different) Phone Number Warren Netzow (715) 735-9341Warren.Netzow@us.fincantieri.com Mailing Address City State ZIP Code 1600 Ely Street Marinette WI 54143 Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as

Fincantieri Marinette Marine				
Contact Person Name (if different)	Phone Number	Email		
Warren Netzow	(715) 735-9341	Warren.Netzow@us.fincantieri.com		
Mailing Address		City	State	ZIP Code
1600 Ely Street		Marinette	WI	54143

(continued)

# **Notification For Hazardous Substance Discharge (Non-Emergency Only)**

Robert Weller Foth Infrastructure	a Environment, LLC		Form 4400-225 (R 02/20)	Page 2 of 2
4. Hazardous Substance In	formation	E STATE OF STATE OF	。 第一章 第一章 第一章 第一章 第一章 第一章 第一章 第一章 第一章 第一章	
Identify hazardous substance	e discharged (check all tha	it apply):		
VOCs  PCE TCE Other Chlorinated Diesel Fuel Oil Gasoline Hydraulic Oil Jet Fuel	## Construction of the continued of the			
5. Impacts to the Environm	ent Information			
_	& Non-Petroleum)  Ired Bedrock K  Meter of Bedrock  Vell ell of Way  Ott  Ott  Date  or results will be faxed upor de a brief description of im-	Fire Explosion The Free Product Groundwater Con Off-Site Contamin Sanitary Sewer Con Sediment Contamir her (specify):	Soil Gas Contamination tamination sub-slab Vapor Contan ation Surface Water Conta ontamination Within 100 ft of Privat tamination Within 1000 ft of Pub	nination mination e Well ic Well zation work.
			rking lot and access areas on active industria	l property.
6. Federal Energy Act Requ		d) of the Solid Was ource	ste Disposal Act (SWDA))  Cause	
For all confirmed releases from USTs occurring after 9/30/2007 please provide the following information:	Tank Piping Dispenser Submersible Turbine Delivery Problem		Spill Overfill Corrosion Physical or Mechanical Da Installation Problem Other (does not fit any of a	
□ Does not apply.	Other (specify):		Unknown	~~,

Submit this completed form along with any associate lab results using the RR Program Submittal Portal, found on the DNR website at <a href="https://dnr.wi.gov/topic/Brownfields/Submittal.html">https://dnr.wi.gov/topic/Brownfields/Submittal.html</a>.

If you have any questions, please contact the appropriate regional Environmental Program Associate (EPA) listed under the "EPAs" tab at <a href="https://dnr.wi.gov/topic/Brownfields/Contact.html">https://dnr.wi.gov/topic/Brownfields/Contact.html</a>.