From: Dave Larsen <dlarsen@reiengineering.com>
Sent: Monday, May 11, 2020 11:52 AM
To: Stoltz, Carrie R - DNR
Subject: Hoffman Corners
Attachments: 40207101_frc.pdf

Lab results from stockpile for backfill purposes. Intent is to bury at a depth greater than four (4) feet. Depth to water is approximately 30'. Excavation is scheduled for next week.

Thank you,
David N. Larsen P.G
Senior Hydrogeologist / Professional Geologist

Connect with us :

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

May 11, 2020

DAVID LARSEN
REI
4080 NORTH 20TH AVENUE
Wausau, WI 54401

RE: Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

Dear DAVID LARSEN:

Enclosed are the analytical results for sample(s) received by the laboratory on May 02, 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

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

Sincerely,

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

Enclosures

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

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40207101001	**DP1**	Solid	04/30/20 14:00	05/02/20 08:30
40207101002	**DP2**	Solid	04/30/20 14:05	05/02/20 08:30
40207101003	**DP3**	Solid	04/30/20 14:15	05/02/20 08:30
40207101004	**DP4**	Solid	04/30/20 14:15	05/02/20 08:30
40207101005	**DP5**	Solid	04/30/20 14:20	05/02/20 08:30

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SAMPLE ANALYTE COUNT

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40207101001	**DP1**	EPA 8270 by SIM	JJB	20
		EPA 8260	ALD	11
		ASTM D2974-87	EMW	1
40207101002	**DP2**	EPA 8270 by SIM	JJB	20
		EPA 8260	SMT	11
		ASTM D2974-87	EMW	1
40207101003	**DP3**	EPA 8270 by SIM	JJB	20
		EPA 8260	SMT	11
		ASTM D2974-87	EMW	1
40207101004	**DP4**	EPA 8270 by SIM	JJB	20
		EPA 8260	SMT	11
		ASTM D2974-87	MMX	1
40207101005	**DP5**	EPA 8270 by SIM	JJB	20
		EPA 8260	ALD	11
		ASTM D2974-87	MMX	1

PASI-G = Pace Analytical Services - Green Bay

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ANALYTICAL RESULTS

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

Sample: DP1 **Lab ID: 40207101001** Collected: 04/30/20 14:00 Received: 05/02/20 08:30 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
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**3.9J**	ug/kg	18.3	2.4	1	05/06/20 09:45	05/08/20 01:21	83-32-9	
Acenaphthylene	**3.9J**	ug/kg	18.3	2.3	1	05/06/20 09:45	05/08/20 01:21	208-96-8	
Anthracene	**12.9J**	ug/kg	18.3	2.3	1	05/06/20 09:45	05/08/20 01:21	120-12-7	
Benzo(a)anthracene	**54.4**	ug/kg	18.3	2.4	1	05/06/20 09:45	05/08/20 01:21	56-55-3	
Benzo(a)pyrene	**66.0**	ug/kg	18.3	2.1	1	05/06/20 09:45	05/08/20 01:21	50-32-8	
Benzo(b)fluoranthene	**106**	ug/kg	18.3	2.5	1	05/06/20 09:45	05/08/20 01:21	205-99-2	
Benzo(g,h,i)perylene	**55.2**	ug/kg	18.3	3.2	1	05/06/20 09:45	05/08/20 01:21	191-24-2	
Benzo(k)fluoranthene	**41.6**	ug/kg	18.3	2.3	1	05/06/20 09:45	05/08/20 01:21	207-08-9	
Chrysene	**78.7**	ug/kg	18.3	3.5	1	05/06/20 09:45	05/08/20 01:21	218-01-9	
Dibenz(a,h)anthracene	**12.7J**	ug/kg	18.3	2.5	1	05/06/20 09:45	05/08/20 01:21	53-70-3	
Fluoranthene	**145**	ug/kg	18.3	2.2	1	05/06/20 09:45	05/08/20 01:21	206-44-0	
Fluorene	**3.4J**	ug/kg	18.3	2.2	1	05/06/20 09:45	05/08/20 01:21	86-73-7	
Indeno(1,2,3-cd)pyrene	**45.4**	ug/kg	18.3	3.8	1	05/06/20 09:45	05/08/20 01:21	193-39-5	
1-Methylnaphthalene	**3.8J**	ug/kg	18.3	2.7	1	05/06/20 09:45	05/08/20 01:21	90-12-0	
2-Methylnaphthalene	**6.0J**	ug/kg	18.3	2.7	1	05/06/20 09:45	05/08/20 01:21	91-57-6	
Naphthalene	**21.9**	ug/kg	18.3	1.8	1	05/06/20 09:45	05/08/20 01:21	91-20-3	
Phenanthrene	**65.9**	ug/kg	18.3	2.1	1	05/06/20 09:45	05/08/20 01:21	85-01-8	
Pyrene	**106**	ug/kg	18.3	2.7	1	05/06/20 09:45	05/08/20 01:21	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	64	%	17-100		1	05/06/20 09:45	05/08/20 01:21	321-60-8	
Terphenyl-d14 (S)	54	%	17-98		1	05/06/20 09:45	05/08/20 01:21	1718-51-0	
8260 MSV Med Level Short List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 18:20	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 18:20	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 18:20	1634-04-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 18:20	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 18:20	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 18:20	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	05/06/20 08:15	05/06/20 18:20	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 18:20	95-47-6	W
Surrogates									
Dibromofluoromethane (S)	99	%	58-145		1	05/06/20 08:15	05/06/20 18:20	1868-53-7	
4-Bromofluorobenzene (S)	101	%	52-137		1	05/06/20 08:15	05/06/20 18:20	460-00-4	
Toluene-d8 (S)	108	%	56-140		1	05/06/20 08:15	05/06/20 18:20	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**8.9**	%	0.10	0.10	1		05/07/20 13:29		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

Sample: DP2 **Lab ID: 40207101002** Collected: 04/30/20 14:05 Received: 05/02/20 08:30 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
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**5.4J**	ug/kg	17.5	2.3	1	05/06/20 09:45	05/08/20 01:56	83-32-9	
Acenaphthylene	**5.7J**	ug/kg	17.5	2.2	1	05/06/20 09:45	05/08/20 01:56	208-96-8	
Anthracene	**17.2J**	ug/kg	17.5	2.2	1	05/06/20 09:45	05/08/20 01:56	120-12-7	
Benzo(a)anthracene	**62.0**	ug/kg	17.5	2.3	1	05/06/20 09:45	05/08/20 01:56	56-55-3	
Benzo(a)pyrene	**92.9**	ug/kg	17.5	2.0	1	05/06/20 09:45	05/08/20 01:56	50-32-8	
Benzo(b)fluoranthene	**159**	ug/kg	17.5	2.4	1	05/06/20 09:45	05/08/20 01:56	205-99-2	
Benzo(g,h,i)perylene	**89.2**	ug/kg	17.5	3.1	1	05/06/20 09:45	05/08/20 01:56	191-24-2	
Benzo(k)fluoranthene	**50.8**	ug/kg	17.5	2.2	1	05/06/20 09:45	05/08/20 01:56	207-08-9	
Chrysene	**99.6**	ug/kg	17.5	3.3	1	05/06/20 09:45	05/08/20 01:56	218-01-9	
Dibenz(a,h)anthracene	**21.5**	ug/kg	17.5	2.4	1	05/06/20 09:45	05/08/20 01:56	53-70-3	
Fluoranthene	**191**	ug/kg	17.5	2.1	1	05/06/20 09:45	05/08/20 01:56	206-44-0	
Fluorene	**5.5J**	ug/kg	17.5	2.1	1	05/06/20 09:45	05/08/20 01:56	86-73-7	
Indeno(1,2,3-cd)pyrene	**72.3**	ug/kg	17.5	3.7	1	05/06/20 09:45	05/08/20 01:56	193-39-5	
1-Methylnaphthalene	**6.6J**	ug/kg	17.5	2.6	1	05/06/20 09:45	05/08/20 01:56	90-12-0	
2-Methylnaphthalene	**13.2J**	ug/kg	17.5	2.6	1	05/06/20 09:45	05/08/20 01:56	91-57-6	
Naphthalene	**64.8**	ug/kg	17.5	1.7	1	05/06/20 09:45	05/08/20 01:56	91-20-3	
Phenanthrene	**72.8**	ug/kg	17.5	2.0	1	05/06/20 09:45	05/08/20 01:56	85-01-8	
Pyrene	**116**	ug/kg	17.5	2.6	1	05/06/20 09:45	05/08/20 01:56	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	67	%	17-100		1	05/06/20 09:45	05/08/20 01:56	321-60-8	
Terphenyl-d14 (S)	56	%	17-98		1	05/06/20 09:45	05/08/20 01:56	1718-51-0	
8260 MSV Med Level Short List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:06	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:06	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:06	1634-04-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:06	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:06	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:06	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	05/06/20 08:30	05/06/20 19:06	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:06	95-47-6	W
Surrogates									
Dibromofluoromethane (S)	84	%	58-145		1	05/06/20 08:30	05/06/20 19:06	1868-53-7	
4-Bromofluorobenzene (S)	104	%	52-137		1	05/06/20 08:30	05/06/20 19:06	460-00-4	
Toluene-d8 (S)	99	%	56-140		1	05/06/20 08:30	05/06/20 19:06	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**4.8**	%	0.10	0.10	1		05/07/20 13:29		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

Sample: DP3 **Lab ID: 40207101003** Collected: 04/30/20 14:15 Received: 05/02/20 08:30 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
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.4**	ug/kg	18.5	2.4	1	05/06/20 09:45	05/08/20 01:04	83-32-9	
Acenaphthylene	**<2.3**	ug/kg	18.5	2.3	1	05/06/20 09:45	05/08/20 01:04	208-96-8	
Anthracene	**<2.3**	ug/kg	18.5	2.3	1	05/06/20 09:45	05/08/20 01:04	120-12-7	
Benzo(a)anthracene	**4.4J**	ug/kg	18.5	2.4	1	05/06/20 09:45	05/08/20 01:04	56-55-3	
Benzo(a)pyrene	**5.1J**	ug/kg	18.5	2.1	1	05/06/20 09:45	05/08/20 01:04	50-32-8	
Benzo(b)fluoranthene	**8.6J**	ug/kg	18.5	2.6	1	05/06/20 09:45	05/08/20 01:04	205-99-2	
Benzo(g,h,i)perylene	**8.6J**	ug/kg	18.5	3.2	1	05/06/20 09:45	05/08/20 01:04	191-24-2	
Benzo(k)fluoranthene	**3.4J**	ug/kg	18.5	2.4	1	05/06/20 09:45	05/08/20 01:04	207-08-9	
Chrysene	**7.3J**	ug/kg	18.5	3.5	1	05/06/20 09:45	05/08/20 01:04	218-01-9	
Dibenz(a,h)anthracene	**<2.6**	ug/kg	18.5	2.6	1	05/06/20 09:45	05/08/20 01:04	53-70-3	
Fluoranthene	**7.5J**	ug/kg	18.5	2.2	1	05/06/20 09:45	05/08/20 01:04	206-44-0	
Fluorene	**<2.2**	ug/kg	18.5	2.2	1	05/06/20 09:45	05/08/20 01:04	86-73-7	
Indeno(1,2,3-cd)pyrene	**4.4J**	ug/kg	18.5	3.9	1	05/06/20 09:45	05/08/20 01:04	193-39-5	
1-Methylnaphthalene	**<2.7**	ug/kg	18.5	2.7	1	05/06/20 09:45	05/08/20 01:04	90-12-0	
2-Methylnaphthalene	**<2.7**	ug/kg	18.5	2.7	1	05/06/20 09:45	05/08/20 01:04	91-57-6	
Naphthalene	**1.8J**	ug/kg	18.5	1.8	1	05/06/20 09:45	05/08/20 01:04	91-20-3	
Phenanthrene	**3.5J**	ug/kg	18.5	2.1	1	05/06/20 09:45	05/08/20 01:04	85-01-8	
Pyrene	**5.7J**	ug/kg	18.5	2.7	1	05/06/20 09:45	05/08/20 01:04	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	63	%	17-100		1	05/06/20 09:45	05/08/20 01:04	321-60-8	
Terphenyl-d14 (S)	56	%	17-98		1	05/06/20 09:45	05/08/20 01:04	1718-51-0	
8260 MSV Med Level Short List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:23	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:23	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:23	1634-04-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:23	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:23	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:23	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	05/06/20 08:30	05/06/20 19:23	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:23	95-47-6	W
Surrogates									
Dibromofluoromethane (S)	79	%	58-145		1	05/06/20 08:30	05/06/20 19:23	1868-53-7	
4-Bromofluorobenzene (S)	94	%	52-137		1	05/06/20 08:30	05/06/20 19:23	460-00-4	
Toluene-d8 (S)	93	%	56-140		1	05/06/20 08:30	05/06/20 19:23	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**9.8**	%	0.10	0.10	1		05/07/20 13:29		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

Sample: DP4 **Lab ID: 40207101004** Collected: 04/30/20 14:15 Received: 05/02/20 08:30 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
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<10**	ug/kg	76.8	10	4	05/07/20 09:25	05/08/20 11:18	83-32-9	
Acenaphthylene	**19.9J**	ug/kg	76.8	9.7	4	05/07/20 09:25	05/08/20 11:18	208-96-8	
Anthracene	**86.8**	ug/kg	76.8	9.5	4	05/07/20 09:25	05/08/20 11:18	120-12-7	
Benzo(a)anthracene	**330**	ug/kg	76.8	9.9	4	05/07/20 09:25	05/08/20 11:18	56-55-3	
Benzo(a)pyrene	**347**	ug/kg	76.8	8.7	4	05/07/20 09:25	05/08/20 11:18	50-32-8	
Benzo(b)fluoranthene	**500**	ug/kg	76.8	10.7	4	05/07/20 09:25	05/08/20 11:18	205-99-2	
Benzo(g,h,i)perylene	**226**	ug/kg	76.8	13.5	4	05/07/20 09:25	05/08/20 11:18	191-24-2	
Benzo(k)fluoranthene	**171**	ug/kg	76.8	9.8	4	05/07/20 09:25	05/08/20 11:18	207-08-9	
Chrysene	**489**	ug/kg	76.8	14.5	4	05/07/20 09:25	05/08/20 11:18	218-01-9	
Dibenz(a,h)anthracene	**44.3J**	ug/kg	76.8	10.6	4	05/07/20 09:25	05/08/20 11:18	53-70-3	
Fluoranthene	**880**	ug/kg	76.8	9.1	4	05/07/20 09:25	05/08/20 11:18	206-44-0	
Fluorene	**23.2J**	ug/kg	76.8	9.2	4	05/07/20 09:25	05/08/20 11:18	86-73-7	
Indeno(1,2,3-cd)pyrene	**181**	ug/kg	76.8	16.0	4	05/07/20 09:25	05/08/20 11:18	193-39-5	
1-Methylnaphthalene	**<11.2**	ug/kg	76.8	11.2	4	05/07/20 09:25	05/08/20 11:18	90-12-0	
2-Methylnaphthalene	**11.6J**	ug/kg	76.8	11.2	4	05/07/20 09:25	05/08/20 11:18	91-57-6	
Naphthalene	**29.2J**	ug/kg	76.8	7.5	4	05/07/20 09:25	05/08/20 11:18	91-20-3	
Phenanthrene	**493**	ug/kg	76.8	8.8	4	05/07/20 09:25	05/08/20 11:18	85-01-8	
Pyrene	**839**	ug/kg	76.8	11.3	4	05/07/20 09:25	05/08/20 11:18	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	17-100		4	05/07/20 09:25	05/08/20 11:18	321-60-8	
Terphenyl-d14 (S)	55	%	17-98		4	05/07/20 09:25	05/08/20 11:18	1718-51-0	
8260 MSV Med Level Short List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:40	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:40	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:40	1634-04-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:40	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:40	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:40	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	05/06/20 08:30	05/06/20 19:40	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:30	05/06/20 19:40	95-47-6	W
Surrogates									
Dibromofluoromethane (S)	80	%	58-145		1	05/06/20 08:30	05/06/20 19:40	1868-53-7	
4-Bromofluorobenzene (S)	92	%	52-137		1	05/06/20 08:30	05/06/20 19:40	460-00-4	
Toluene-d8 (S)	92	%	56-140		1	05/06/20 08:30	05/06/20 19:40	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**12.9**	%	0.10	0.10	1		05/07/20 14:51		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

Sample: DP5 **Lab ID: 40207101005** Collected: 04/30/20 14:20 Received: 05/02/20 08:30 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
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
Acenaphthene	**<2.4**	ug/kg	18.8	2.4	1	05/07/20 09:25	05/08/20 11:35	83-32-9	
Acenaphthylene	**<2.4**	ug/kg	18.8	2.4	1	05/07/20 09:25	05/08/20 11:35	208-96-8	
Anthracene	**<2.3**	ug/kg	18.8	2.3	1	05/07/20 09:25	05/08/20 11:35	120-12-7	
Benzo(a)anthracene	**8.0J**	ug/kg	18.8	2.4	1	05/07/20 09:25	05/08/20 11:35	56-55-3	
Benzo(a)pyrene	**8.0J**	ug/kg	18.8	2.1	1	05/07/20 09:25	05/08/20 11:35	50-32-8	
Benzo(b)fluoranthene	**12.5J**	ug/kg	18.8	2.6	1	05/07/20 09:25	05/08/20 11:35	205-99-2	
Benzo(g,h,i)perylene	**8.3J**	ug/kg	18.8	3.3	1	05/07/20 09:25	05/08/20 11:35	191-24-2	
Benzo(k)fluoranthene	**5.0J**	ug/kg	18.8	2.4	1	05/07/20 09:25	05/08/20 11:35	207-08-9	
Chrysene	**9.6J**	ug/kg	18.8	3.5	1	05/07/20 09:25	05/08/20 11:35	218-01-9	
Dibenz(a,h)anthracene	**<2.6**	ug/kg	18.8	2.6	1	05/07/20 09:25	05/08/20 11:35	53-70-3	
Fluoranthene	**16.0J**	ug/kg	18.8	2.2	1	05/07/20 09:25	05/08/20 11:35	206-44-0	
Fluorene	**<2.3**	ug/kg	18.8	2.3	1	05/07/20 09:25	05/08/20 11:35	86-73-7	
Indeno(1,2,3-cd)pyrene	**5.5J**	ug/kg	18.8	3.9	1	05/07/20 09:25	05/08/20 11:35	193-39-5	
1-Methylnaphthalene	**<2.7**	ug/kg	18.8	2.7	1	05/07/20 09:25	05/08/20 11:35	90-12-0	
2-Methylnaphthalene	**<2.7**	ug/kg	18.8	2.7	1	05/07/20 09:25	05/08/20 11:35	91-57-6	
Naphthalene	**<1.8**	ug/kg	18.8	1.8	1	05/07/20 09:25	05/08/20 11:35	91-20-3	
Phenanthrene	**4.9J**	ug/kg	18.8	2.2	1	05/07/20 09:25	05/08/20 11:35	85-01-8	
Pyrene	**11.1J**	ug/kg	18.8	2.8	1	05/07/20 09:25	05/08/20 11:35	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	71	%	17-100		1	05/07/20 09:25	05/08/20 11:35	321-60-8	
Terphenyl-d14 (S)	61	%	17-98		1	05/07/20 09:25	05/08/20 11:35	1718-51-0	
8260 MSV Med Level Short List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B Pace Analytical Services - Green Bay								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 19:06	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 19:06	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 19:06	1634-04-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 19:06	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 19:06	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 19:06	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	05/06/20 08:15	05/06/20 19:06	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	05/06/20 08:15	05/06/20 19:06	95-47-6	W
Surrogates									
Dibromofluoromethane (S)	85	%	58-145		1	05/06/20 08:15	05/06/20 19:06	1868-53-7	
4-Bromofluorobenzene (S)	84	%	52-137		1	05/06/20 08:15	05/06/20 19:06	460-00-4	
Toluene-d8 (S)	90	%	56-140		1	05/06/20 08:15	05/06/20 19:06	2037-26-5	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**11.2**	%	0.10	0.10	1		05/07/20 14:52		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

QC Batch: 354216
QC Batch Method: EPA 5035/5030B
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Med Level Short List
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40207101001, 40207101005

METHOD BLANK: 2049826 Matrix: Solid
Associated Lab Samples: 40207101001, 40207101005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<18.1	60.0	05/06/20 10:31	
1,3,5-Trimethylbenzene	ug/kg	<16.0	53.0	05/06/20 10:31	
Benzene	ug/kg	<12.5	42.0	05/06/20 10:31	
Ethylbenzene	ug/kg	<14.5	50.0	05/06/20 10:31	
m&p-Xylene	ug/kg	<32.4	108	05/06/20 10:31	
Methyl-tert-butyl ether	ug/kg	<16.2	54.0	05/06/20 10:31	
o-Xylene	ug/kg	<18.1	60.0	05/06/20 10:31	
Toluene	ug/kg	<13.1	50.0	05/06/20 10:31	
4-Bromofluorobenzene (S)	%	92	52-137	05/06/20 10:31	
Dibromofluoromethane (S)	%	87	58-145	05/06/20 10:31	
Toluene-d8 (S)	%	96	56-140	05/06/20 10:31	

LABORATORY CONTROL SAMPLE: 2049827

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2580	103	70-130	
Ethylbenzene	ug/kg	2500	2600	104	80-120	
m&p-Xylene	ug/kg	5000	5190	104	70-130	
Methyl-tert-butyl ether	ug/kg	2500	3250	130	70-130	
o-Xylene	ug/kg	2500	2500	100	70-130	
Toluene	ug/kg	2500	2680	107	80-120	
4-Bromofluorobenzene (S)	%			104	52-137	
Dibromofluoromethane (S)	%			92	58-145	
Toluene-d8 (S)	%			97	56-140	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2049828 2049829

Parameter	Units	40207147011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/kg	37.1J	1370	1360	1670	1770	119	127	70-130	6	20	
Ethylbenzene	ug/kg	<25.0	1370	1360	1640	1700	118	123	80-120	3	20	M1
m&p-Xylene	ug/kg	<50.0	2750	2720	3220	3320	116	120	70-130	3	20	
Methyl-tert-butyl ether	ug/kg	<25.0	1370	1360	2060	2100	150	154	70-130	2	20	M1
o-Xylene	ug/kg	<25.0	1370	1360	1540	1570	112	115	70-130	2	20	
Toluene	ug/kg	41.0J	1370	1360	1770	1820	126	131	80-120	3	20	M1
4-Bromofluorobenzene (S)	%						113	119	52-137			
Dibromofluoromethane (S)	%						102	111	58-145			

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2049828 2049829

Parameter	Units	40207147011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene-d8 (S)	%						110	120	56-140			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

QC Batch: 354221
QC Batch Method: EPA 5035/5030B
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Med Level Short List
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40207101002, 40207101003, 40207101004

METHOD BLANK: 2049846 Matrix: Solid
Associated Lab Samples: 40207101002, 40207101003, 40207101004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<18.1	60.0	05/06/20 10:52	
1,3,5-Trimethylbenzene	ug/kg	<16.0	53.0	05/06/20 10:52	
Benzene	ug/kg	<12.5	42.0	05/06/20 10:52	
Ethylbenzene	ug/kg	<14.5	50.0	05/06/20 10:52	
m&p-Xylene	ug/kg	<32.4	108	05/06/20 10:52	
Methyl-tert-butyl ether	ug/kg	<16.2	54.0	05/06/20 10:52	
o-Xylene	ug/kg	<18.1	60.0	05/06/20 10:52	
Toluene	ug/kg	<13.1	50.0	05/06/20 10:52	
4-Bromofluorobenzene (S)	%	99	52-137	05/06/20 10:52	
Dibromofluoromethane (S)	%	90	58-145	05/06/20 10:52	
Toluene-d8 (S)	%	100	56-140	05/06/20 10:52	

LABORATORY CONTROL SAMPLE: 2049847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	2500	2960	118	70-130	
Ethylbenzene	ug/kg	2500	2820	113	80-120	
m&p-Xylene	ug/kg	5000	5680	114	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2300	92	70-130	
o-Xylene	ug/kg	2500	2810	112	70-130	
Toluene	ug/kg	2500	2880	115	80-120	
4-Bromofluorobenzene (S)	%			107	52-137	
Dibromofluoromethane (S)	%			95	58-145	
Toluene-d8 (S)	%			100	56-140	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2049848 2049849

Parameter	Units	40207147003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/kg	<50.0	1370	1390	1730	1710	125	124	70-130	1	20	
Ethylbenzene	ug/kg	314	1370	1390	1760	1820	105	109	80-120	3	20	
m&p-Xylene	ug/kg	116J	2750	2770	3190	3250	112	113	70-130	2	20	
Methyl-tert-butyl ether	ug/kg	<50.0	1370	1390	1320	1300	96	94	70-130	1	20	
o-Xylene	ug/kg	109J	1370	1390	1610	1670	109	113	70-130	3	20	
Toluene	ug/kg	<50.0	1370	1390	1630	1660	119	120	80-120	2	20	
4-Bromofluorobenzene (S)	%						113	110	52-137			
Dibromofluoromethane (S)	%						101	97	58-145			

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2049848 2049849

Parameter	Units	40207147003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene-d8 (S)	%						108	105	56-140			

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

QC Batch: 354185
QC Batch Method: EPA 3546
Analysis Method: EPA 8270 by SIM
Analysis Description: 8270/3546 MSSV PAH by SIM
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40207101001, 40207101002, 40207101003

METHOD BLANK: 2049694 Matrix: Solid
Associated Lab Samples: 40207101001, 40207101002, 40207101003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.4	16.7	05/06/20 14:39	
2-Methylnaphthalene	ug/kg	<2.4	16.7	05/06/20 14:39	
Acenaphthene	ug/kg	<2.2	16.7	05/06/20 14:39	
Acenaphthylene	ug/kg	<2.1	16.7	05/06/20 14:39	
Anthracene	ug/kg	<2.1	16.7	05/06/20 14:39	
Benzo(a)anthracene	ug/kg	<2.2	16.7	05/06/20 14:39	
Benzo(a)pyrene	ug/kg	<1.9	16.7	05/06/20 14:39	
Benzo(b)fluoranthene	ug/kg	<2.3	16.7	05/06/20 14:39	
Benzo(g,h,i)perylene	ug/kg	<2.9	16.7	05/06/20 14:39	
Benzo(k)fluoranthene	ug/kg	<2.1	16.7	05/06/20 14:39	
Chrysene	ug/kg	<3.1	16.7	05/06/20 14:39	
Dibenz(a,h)anthracene	ug/kg	<2.3	16.7	05/06/20 14:39	
Fluoranthene	ug/kg	<2.0	16.7	05/06/20 14:39	
Fluorene	ug/kg	<2.0	16.7	05/06/20 14:39	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.5	16.7	05/06/20 14:39	
Naphthalene	ug/kg	<1.6	16.7	05/06/20 14:39	
Phenanthrene	ug/kg	<1.9	16.7	05/06/20 14:39	
Pyrene	ug/kg	<2.5	16.7	05/06/20 14:39	
2-Fluorobiphenyl (S)	%	80	17-100	05/06/20 14:39	
Terphenyl-d14 (S)	%	86	17-98	05/06/20 14:39	

LABORATORY CONTROL SAMPLE: 2049695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	253	76	58-101	
2-Methylnaphthalene	ug/kg	333	251	75	59-101	
Acenaphthene	ug/kg	333	269	81	62-97	
Acenaphthylene	ug/kg	333	269	81	67-102	
Anthracene	ug/kg	333	285	86	69-120	
Benzo(a)anthracene	ug/kg	333	248	74	59-101	
Benzo(a)pyrene	ug/kg	333	291	87	70-110	
Benzo(b)fluoranthene	ug/kg	333	277	83	66-111	
Benzo(g,h,i)perylene	ug/kg	333	282	85	64-106	
Benzo(k)fluoranthene	ug/kg	333	306	92	65-108	
Chrysene	ug/kg	333	260	78	61-102	
Dibenz(a,h)anthracene	ug/kg	333	284	85	64-120	
Fluoranthene	ug/kg	333	328	98	69-120	
Fluorene	ug/kg	333	279	84	70-99	
Indeno(1,2,3-cd)pyrene	ug/kg	333	286	86	66-120	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

LABORATORY CONTROL SAMPLE: 2049695

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	333	245	74	60-95	
Phenanthrene	ug/kg	333	275	82	66-98	
Pyrene	ug/kg	333	250	75	63-120	
2-Fluorobiphenyl (S)	%			75	17-100	
Terphenyl-d14 (S)	%			73	17-98	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2049696 2049697

Parameter	Units	40206892018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	1520	2340	2310	2860	2950	57	62	48-101	3	25	
2-Methylnaphthalene	ug/kg	1250	2340	2310	2700	2780	62	66	46-101	3	21	
Acenaphthene	ug/kg	1090	2340	2310	2710	2730	70	71	52-97	1	20	
Acenaphthylene	ug/kg	229J	2340	2310	1940	1980	73	75	51-102	2	20	
Anthracene	ug/kg	188J	2340	2310	1990	1950	77	76	54-120	2	20	
Benzo(a)anthracene	ug/kg	149J	2340	2310	1730	1730	68	68	34-101	0	22	
Benzo(a)pyrene	ug/kg	66.6J	2340	2310	1810	1770	75	73	46-110	2	25	
Benzo(b)fluoranthene	ug/kg	<79.8	2340	2310	1780	1700	73	71	40-111	4	23	
Benzo(g,h,i)perylene	ug/kg	<101	2340	2310	1610	1720	68	73	40-120	7	24	
Benzo(k)fluoranthene	ug/kg	<73.4	2340	2310	1720	1810	73	77	47-108	5	24	
Chrysene	ug/kg	<108	2340	2310	1730	1760	70	72	35-115	2	20	
Dibenz(a,h)anthracene	ug/kg	<79.5	2340	2310	1560	1710	67	74	46-120	9	21	
Fluoranthene	ug/kg	221J	2340	2310	1850	1890	70	72	52-120	2	23	
Fluorene	ug/kg	454J	2340	2310	2260	2230	77	77	54-99	1	20	
Indeno(1,2,3-cd)pyrene	ug/kg	<120	2340	2310	1580	1740	67	74	46-120	9	22	
Naphthalene	ug/kg	4740	2340	2310	6040	6330	56	69	46-95	5	23	
Phenanthrene	ug/kg	929	2340	2310	2560	2400	70	63	51-98	7	20	
Pyrene	ug/kg	226J	2340	2310	1760	1820	66	69	46-120	3	24	
2-Fluorobiphenyl (S)	%						70	72	17-100			
Terphenyl-d14 (S)	%						71	71	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.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

QC Batch: 354293
QC Batch Method: EPA 3546
Analysis Method: EPA 8270 by SIM
Analysis Description: 8270/3546 MSSV PAH by SIM
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40207101004, 40207101005

METHOD BLANK: 2050223 Matrix: Solid
Associated Lab Samples: 40207101004, 40207101005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.4	16.7	05/07/20 13:51	
2-Methylnaphthalene	ug/kg	<2.4	16.7	05/07/20 13:51	
Acenaphthene	ug/kg	<2.2	16.7	05/07/20 13:51	
Acenaphthylene	ug/kg	<2.1	16.7	05/07/20 13:51	
Anthracene	ug/kg	<2.1	16.7	05/07/20 13:51	
Benzo(a)anthracene	ug/kg	<2.2	16.7	05/07/20 13:51	
Benzo(a)pyrene	ug/kg	<1.9	16.7	05/07/20 13:51	
Benzo(b)fluoranthene	ug/kg	<2.3	16.7	05/07/20 13:51	
Benzo(g,h,i)perylene	ug/kg	<2.9	16.7	05/07/20 13:51	
Benzo(k)fluoranthene	ug/kg	<2.1	16.7	05/07/20 13:51	
Chrysene	ug/kg	<3.2	16.7	05/07/20 13:51	
Dibenz(a,h)anthracene	ug/kg	<2.3	16.7	05/07/20 13:51	
Fluoranthene	ug/kg	<2.0	16.7	05/07/20 13:51	
Fluorene	ug/kg	<2.0	16.7	05/07/20 13:51	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.5	16.7	05/07/20 13:51	
Naphthalene	ug/kg	<1.6	16.7	05/07/20 13:51	
Phenanthrene	ug/kg	<1.9	16.7	05/07/20 13:51	
Pyrene	ug/kg	<2.5	16.7	05/07/20 13:51	
2-Fluorobiphenyl (S)	%	78	17-100	05/07/20 13:51	
Terphenyl-d14 (S)	%	84	17-98	05/07/20 13:51	

LABORATORY CONTROL SAMPLE: 2050224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	266	80	58-101	
2-Methylnaphthalene	ug/kg	333	264	79	59-101	
Acenaphthene	ug/kg	333	283	85	62-97	
Acenaphthylene	ug/kg	333	290	87	67-102	
Anthracene	ug/kg	333	298	89	69-120	
Benzo(a)anthracene	ug/kg	333	260	78	59-101	
Benzo(a)pyrene	ug/kg	333	305	92	70-110	
Benzo(b)fluoranthene	ug/kg	333	298	90	66-111	
Benzo(g,h,i)perylene	ug/kg	333	296	89	64-106	
Benzo(k)fluoranthene	ug/kg	333	301	90	65-108	
Chrysene	ug/kg	333	287	86	61-102	
Dibenz(a,h)anthracene	ug/kg	333	298	89	64-120	
Fluoranthene	ug/kg	333	290	87	69-120	
Fluorene	ug/kg	333	296	89	70-99	
Indeno(1,2,3-cd)pyrene	ug/kg	333	299	90	66-120	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

LABORATORY CONTROL SAMPLE: 2050224

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	333	263	79	60-95	
Phenanthrene	ug/kg	333	289	87	66-98	
Pyrene	ug/kg	333	262	79	63-120	
2-Fluorobiphenyl (S)	%			81	17-100	
Terphenyl-d14 (S)	%			80	17-98	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2050225 2050226

Parameter	Units	40207017019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	494J	2220	2210	1900	1600	64	50	48-101	17	25	
2-Methylnaphthalene	ug/kg	650J	2220	2210	2160	1880	68	56	46-101	14	21	
Acenaphthene	ug/kg	394J	2220	2210	2000	1820	73	64	52-97	9	20	
Acenaphthylene	ug/kg	<138	2220	2210	1680	1570	72	67	51-102	7	20	
Anthracene	ug/kg	<136	2220	2210	1660	1660	75	75	54-120	0	20	
Benzo(a)anthracene	ug/kg	<142	2220	2210	1520	1550	69	70	34-101	1	22	
Benzo(a)pyrene	ug/kg	<125	2220	2210	1600	1640	72	74	46-110	3	25	
Benzo(b)fluoranthene	ug/kg	<152	2220	2210	1600	1610	72	73	40-111	0	23	
Benzo(g,h,i)perylene	ug/kg	<193	2220	2210	1510	1510	68	68	40-120	0	24	
Benzo(k)fluoranthene	ug/kg	<140	2220	2210	1670	1640	75	74	47-108	2	24	
Chrysene	ug/kg	<207	2220	2210	1570	1540	71	70	35-115	2	20	
Dibenz(a,h)anthracene	ug/kg	<152	2220	2210	1470	1460	67	66	46-120	1	21	
Fluoranthene	ug/kg	<130	2220	2210	1730	1690	73	72	52-120	2	23	
Fluorene	ug/kg	<132	2220	2210	1660	1640	72	71	54-99	1	20	
Indeno(1,2,3-cd)pyrene	ug/kg	<229	2220	2210	1530	1510	69	68	46-120	1	22	
Naphthalene	ug/kg	9510	2220	2210	11300	8430	80	-49	46-95	29	23	M1,R1
Phenanthrene	ug/kg	156J	2220	2210	1780	1680	73	69	51-98	6	20	
Pyrene	ug/kg	<161	2220	2210	1570	1520	67	65	46-120	3	24	
2-Fluorobiphenyl (S)	%						67	61	17-100			
Terphenyl-d14 (S)	%						63	64	17-98			

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

QC Batch: 354343
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40207101001, 40207101002, 40207101003

SAMPLE DUPLICATE: 2050575

Parameter	Units	40207304008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.2	17.5	2	10	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

QC Batch: 354350
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40207101004, 40207101005

SAMPLE DUPLICATE: 2050646

Parameter	Units	40207306013 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.6	16.0	3	10	

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REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
W	Non-detect results are reported on a wet weight basis.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6958 HOFFMAN CORNERS
Pace Project No.: 40207101

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40207101001	**DP1**	EPA 3546	354185	EPA 8270 by SIM	354246
40207101002	**DP2**	EPA 3546	354185	EPA 8270 by SIM	354246
40207101003	**DP3**	EPA 3546	354185	EPA 8270 by SIM	354246
40207101004	**DP4**	EPA 3546	354293	EPA 8270 by SIM	354339
40207101005	**DP5**	EPA 3546	354293	EPA 8270 by SIM	354339
40207101001	**DP1**	EPA 5035/5030B	354216	EPA 8260	354220
40207101002	**DP2**	EPA 5035/5030B	354221	EPA 8260	354225
40207101003	**DP3**	EPA 5035/5030B	354221	EPA 8260	354225
40207101004	**DP4**	EPA 5035/5030B	354221	EPA 8260	354225
40207101005	**DP5**	EPA 5035/5030B	354216	EPA 8260	354220
40207101001	**DP1**	ASTM D2974-87	354343		
40207101002	**DP2**	ASTM D2974-87	354343		
40207101003	**DP3**	ASTM D2974-87	354343		
40207101004	**DP4**	ASTM D2974-87	354350		
40207101005	**DP5**	ASTM D2974-87	354350		

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

Page 1 of

40207101

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	REI
Branch/Location:	
Project Contact:	David Cassel
Phone:	715-605-9784
Project Number:	0958
Project Name:	Hoffman Corners
Project State:	WI
Sampled By (Print):	David Cassel
Sampled By (Sign):	
PO #:	Regulatory Program: PECFA

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

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

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

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

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

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PVOC	DRO	GRO/DRO	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					N	F	N	N	N			
						A	A	A	A			
001	DP1	4/30/20	2:00	SOIL			X	X	X			
002	DP2		2:05									
003	DP3		2:15									
004	DP4		2:15									
005	DP5		2:20									

5 DAY TAT

① Collected 4-30-20 per DL 5-4-20

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

Transmit Prelim Rush Results by (complete what you want):

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

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
	5/1 1600		
Relinquished By: walt co	Date/Time: 5/2/20 0830	Received By:	Date/Time: 5/2/20 0830
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No. 40207101

Receipt Temp = ROI °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

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

Sample Preservation Receipt Form

Client Name: KEI Project # 40207101

All containers needing preservation have been checked and noted below: □Yes □No ☒N/A Initial when completed: Date/ Time:

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

	Glass								Plastic					Vials						Jars				General			VOA Vials (>6mm)*	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
Pace Lab #	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																																2.5 / 5 / 10
002																																2.5 / 5 / 10
003																																2.5 / 5 / 10
004																																2.5 / 5 / 10
005																																2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																												5/12/20				2.5 / 5 / 10
017																												WP				2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:_____ Headspace in VOA Vials (>6mm) : □Yes □No ☒N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

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

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

Sample Condition Upon Receipt Form (SCUR)

Project #: **WO#: 40207101**

Client Name: KEI

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

Tracking #: 2422441-1

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

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

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

Thermometer Used SR - NA **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROT /Corr: _____

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

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

Person examining contents: Date: 5/2/20 /Initials: MW

Labeled By Initials: MW

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☒No ☐N/A	2. No mail, Invoice, pg #, 5/2/20 MW
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3. Matrix only for 001 MW 5/2/20
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: 5/2/20 MW	☐Yes ☒No	7.
Sufficient Volume: For Analysis: ☒Yes ☐No MS/MSD:	☐Yes ☒No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☐Yes ☒No ☐N/A	12. Sample 003 mech vial time is 2:10. +JGFU MW 5/2/20 5/2/20 MW
-Includes date/time/ID/Analysis Matrix: S		
Trip Blank Present:	☐Yes ☐No ☒N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

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