Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

October 10, 2022

James Beilman
Mull Drilling Company
1700 N Waterfront Pkwy
Bld. 1200
Wichita, KS 67206

RE: Project: 915-1
Pace Project No.: 60410341

Dear James Beilman:

Enclosed are the analytical results for sample(s) received by the laboratory on September 14, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace National - Mt. Juliet
- Pace Analytical Services - Kansas City
- Pace Analytical Services - Greensburg

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

Sincerely,

Heather M. Wilson

Heather Wilson
heather.wilson@pacelabs.com
1(913)563-1407
Project Manager

Enclosures

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: 915-1
Pace Project No.: 60410341

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services Kansas
9608 Loiret Boulevard, Lenexa, KS 66219
Missouri Inorganic Drinking Water Certification #: 10090
Arkansas Drinking Water
Arkansas Certification #: 22-031-0
Arkansas Drinking Water
Illinois Certification #: 2000302021-3
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212020-2
Oklahoma Certification #: 9205/9935
Florida: Cert E871149 SEKS WET
Texas Certification #: T104704407-21-15
Utah Certification #: KS000212019-9
Illinois Certification #: 004592
Kansas Field Laboratory Accreditation: # E-92587
Missouri SEKS Micro Certification: 10070

Pace Analytical Services National
12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: 915-1
Pace Project No.: 60410341

Pace Analytical Services National

Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Mold Certification #: LAB0152
Texas Certification #: T 104704245-17-14
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #:100789

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: 915-1
Pace Project No.: 60410341

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60410341001	**SL-1**	Solid	09/09/22 09:10	09/14/22 11:10
60410341002	**SL-2**	Solid	09/09/22 09:30	09/14/22 11:10
60410341003	**SL-3**	Solid	09/09/22 09:40	09/14/22 11:10
60410341004	**SL-4**	Solid	09/09/22 09:50	09/14/22 11:10
60410341005	**SL-5 '7'**	Solid	09/09/22 10:00	09/14/22 11:10
60410341006	**SOIL PILE**	Solid	09/09/22 10:10	09/14/22 11:10

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 915-1
Pace Project No.: 60410341

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60410341001	**SL-1**	EPA 8015B	WFG	4	PASI-K
		EPA 8015B	BA	2	PASI-K
		6010B-NE493 Ch 2	ZSA	1	PAN
		EPA 6010	MRV	8	PASI-K
		EPA 6020	JGP	1	PASI-K
		EPA 8270 by SIM	SJJ	17	PASI-K
		EPA 8260C	RAD	9	PASI-K
		ASTM D2974	DWC	1	PASI-K
		SM 2540G	CMK	1	PAN
		EPA 7199	ARD	1	PAN
		EPA 9045D	SGB	1	PAN
		EPA 9050	NTG	1	PAN
		Calculated	CCE	1	PAN
60410341002	**SL-2**	EPA 8015B	WFG	4	PASI-K
		EPA 8015B	BA	2	PASI-K
		6010B-NE493 Ch 2	ZSA	1	PAN
		EPA 6010	MRV	8	PASI-K
		EPA 6020	JGP	1	PASI-K
		EPA 8270 by SIM	SJJ	17	PASI-K
		EPA 8260C	RAD	9	PASI-K
		ASTM D2974	DWC	1	PASI-K
		SM 2540G	CMK	1	PAN
		EPA 7199	ARD	1	PAN
		EPA 9045D	SGB	1	PAN
		EPA 9050	NTG	1	PAN
		Calculated	CCE	1	PAN
60410341003	**SL-3**	EPA 8015B	WFG	4	PASI-K
		EPA 8015B	BA	2	PASI-K
		6010B-NE493 Ch 2	ZSA	1	PAN
		EPA 6010	MRV	8	PASI-K
		EPA 6020	JGP	1	PASI-K
		EPA 8270 by SIM	SJJ	17	PASI-K
		EPA 8260C	RAD	9	PASI-K
		ASTM D2974	DWC	1	PASI-K
		SM 2540G	CMK	1	PAN
		EPA 7199	ARD	1	PAN
		EPA 9045D	SGB	1	PAN

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 915-1
Pace Project No.: 60410341

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9050	NTG	1	PAN
		Calculated	CCE	1	PAN
60410341004	**SL-4**	EPA 8015B	WFG	4	PASI-K
		EPA 8015B	BA	2	PASI-K
		6010B-NE493 Ch 2	ZSA	1	PAN
		EPA 6010	MRV	8	PASI-K
		EPA 6020	JGP	1	PASI-K
		EPA 8270 by SIM	SJJ	17	PASI-K
		EPA 8260C	RAD	9	PASI-K
		ASTM D2974	DWC	1	PASI-K
		SM 2540G	CMK	1	PAN
		EPA 7199	ARD	1	PAN
		EPA 9045D	SGB	1	PAN
		EPA 9050	NTG	1	PAN
		Calculated	CCE	1	PAN
60410341005	**SL-5 '7'**	EPA 8015B	WFG	4	PASI-K
		EPA 8015B	BA	2	PASI-K
		6010B-NE493 Ch 2	CCE	1	PAN
		EPA 6010	MRV	8	PASI-K
		EPA 6020	JGP	1	PASI-K
		EPA 8270 by SIM	SJJ	17	PASI-K
		EPA 8260C	RAD	9	PASI-K
		ASTM D2974	DWC	1	PASI-K
		SM 2540G	CMK	1	PAN
		EPA 7199	ARD	1	PAN
		EPA 9045D	SGB	1	PAN
		EPA 9050	NTG	1	PAN
		Calculated	CCE	1	PAN
60410341006	**SOIL PILE**	EPA 8015B	WFG	4	PASI-K
		EPA 8015B	BA	2	PASI-K
		6010B-NE493 Ch 2	CCE	1	PAN
		EPA 6010	MRV	8	PASI-K
		EPA 6020	JGP	1	PASI-K
		EPA 8270 by SIM	SJJ	17	PASI-K
		EPA 8260C	RAD	9	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 901.1	MAH	2	PASI-PA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 915-1
Pace Project No.: 60410341

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540G	CMK	1	PAN
		EPA 7199	ARD	1	PAN
		EPA 9045D	SGB	1	PAN
		EPA 9050	NTG	1	PAN
		Calculated	CCE	1	PAN

PAN = Pace National - Mt. Juliet
PASI-K = Pace Analytical Services - Kansas City
PASI-PA = Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SL-1 **Lab ID: 60410341001** Collected: 09/09/22 09:10 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
TPH-RRO (C28-C36)	**29.5**	mg/kg	24.4	5.5	1	09/15/22 21:00	09/16/22 09:35		
TPH-DRO (C10-C28)	**44.0**	mg/kg	12.2	5.5	1	09/15/22 21:00	09/16/22 09:35		
Surrogates									
n-Tetracosane (S)	83	%	31-152		1	09/15/22 21:00	09/16/22 09:35	646-31-1	
p-Terphenyl (S)	75	%	46-130		1	09/15/22 21:00	09/16/22 09:35	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
TPH-GRO	ND	mg/kg	14.4	1.8	1	09/22/22 16:01	09/23/22 01:50		
Surrogates									
4-Bromofluorobenzene (S)	100	%	66-130		1	09/22/22 16:01	09/23/22 01:50	460-00-4	
Metals (ICP) 6010B-NE493 Ch 2	Analytical Method: 6010B-NE493 Ch 2 Preparation Method: HWS Boron Pace National - Mt. Juliet								
Boron, Hot Water Soluble	**2530**	ug/L	200	16.7	1	09/19/22 11:06	09/29/22 18:30	7440-42-8H	
6010 MET ICP Red. Interference	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Barium	**172**	mg/kg	0.50	0.099	1	09/16/22 08:12	09/20/22 14:25	7440-39-3	
Cadmium	**0.54**	mg/kg	0.50	0.072	1	09/16/22 08:12	09/20/22 14:25	7440-43-9	
Copper	**16.4**	mg/kg	2.0	0.41	1	09/16/22 08:12	09/20/22 14:25	7440-50-8	
Lead	**13.3**	mg/kg	1.0	0.29	1	09/16/22 08:12	09/20/22 14:25	7439-92-1	
Nickel	**15.5**	mg/kg	0.50	0.25	1	09/16/22 08:12	09/20/22 14:25	7440-02-0	
Selenium	**0.55J**	mg/kg	1.5	0.31	1	09/16/22 08:12	09/20/22 14:25	7782-49-2	
Silver	ND	mg/kg	0.70	0.11	1	09/16/22 08:12	09/20/22 14:25	7440-22-4	
Zinc	**58.0**	mg/kg	10	0.21	1	09/16/22 08:12	09/20/22 14:25	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Arsenic	**8.4**	mg/kg	0.98	0.23	10	09/16/22 08:25	09/22/22 17:06	7440-38-2	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
Acenaphthene	ND	mg/kg	0.0080	0.0044	1	09/15/22 20:56	09/19/22 19:21	83-32-9	
Anthracene	ND	mg/kg	0.0080	0.0042	1	09/15/22 20:56	09/19/22 19:21	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0080	0.0044	1	09/15/22 20:56	09/19/22 19:21	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0080	0.0033	1	09/15/22 20:56	09/19/22 19:21	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0080	0.0044	1	09/15/22 20:56	09/19/22 19:21	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0080	0.0045	1	09/15/22 20:56	09/19/22 19:21	207-08-9	
Chrysene	ND	mg/kg	0.0080	0.0043	1	09/15/22 20:56	09/19/22 19:21	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0080	0.0043	1	09/15/22 20:56	09/19/22 19:21	53-70-3	
Fluoranthene	ND	mg/kg	0.0080	0.0056	1	09/15/22 20:56	09/19/22 19:21	206-44-0	
Fluorene	ND	mg/kg	0.0080	0.0052	1	09/15/22 20:56	09/19/22 19:21	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0080	0.0042	1	09/15/22 20:56	09/19/22 19:21	193-39-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SL-1 **Lab ID: 60410341001** Collected: 09/09/22 09:10 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
1-Methylnaphthalene	**0.057**	mg/kg	0.0080	0.0039	1	09/15/22 20:56	09/19/22 19:21	90-12-0	L2
2-Methylnaphthalene	**0.043**	mg/kg	0.0080	0.0049	1	09/15/22 20:56	09/19/22 19:21	91-57-6	
Naphthalene	**0.016**	mg/kg	0.0080	0.0041	1	09/15/22 20:56	09/19/22 19:21	91-20-3	
Pyrene	ND	mg/kg	0.0080	0.0052	1	09/15/22 20:56	09/19/22 19:21	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	80	%	40-120		1	09/15/22 20:56	09/19/22 19:21	321-60-8	
Terphenyl-d14 (S)	91	%	45-130		1	09/15/22 20:56	09/19/22 19:21	1718-51-0	
8260C MSV 5035A Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
Benzene	**0.0019J**	mg/kg	0.0072	0.00065	1	09/15/22 14:48	09/16/22 12:28	71-43-2	
Ethylbenzene	ND	mg/kg	0.0072	0.0012	1	09/15/22 14:48	09/16/22 12:28	100-41-4	
Toluene	ND	mg/kg	0.029	0.0064	1	09/15/22 14:48	09/16/22 12:28	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0072	0.00099	1	09/15/22 14:48	09/16/22 12:28	95-63-6	
1,3,5-Trimethylbenzene	**0.010**	mg/kg	0.0072	0.00062	1	09/15/22 14:48	09/16/22 12:28	108-67-8	
Xylene (Total)	ND	mg/kg	0.021	0.0053	1	09/15/22 14:48	09/16/22 12:28	1330-20-7	
Surrogates									
Toluene-d8 (S)	112	%	80-120		1	09/15/22 14:48	09/16/22 12:28	2037-26-5	
4-Bromofluorobenzene (S)	103	%	83-119		1	09/15/22 14:48	09/16/22 12:28	460-00-4	
1,2-Dichlorobenzene-d4 (S)	99	%	80-120		1	09/15/22 14:48	09/16/22 12:28	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974 Pace Analytical Services - Kansas City								
Percent Moisture	**18.0**	%	0.50	0.50	1		09/15/22 09:26		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**83.2**	%			1	09/19/22 15:12	09/19/22 15:18		
Wet Chemistry 7199	Analytical Method: EPA 7199 Preparation Method: 3060A Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	mg/kg	1.20	0.306	1	10/03/22 18:00	10/05/22 01:16	18540-29-9	
Wet Chemistry 9045D	Analytical Method: EPA 9045D Preparation Method: 9045C/9045D Pace National - Mt. Juliet								
pH	**7.58**	Std. Units		0.10	1	09/26/22 11:00	09/26/22 13:00		H3
Wet Chemistry 9050AMod	Analytical Method: EPA 9050 Preparation Method: 9050A Pace National - Mt. Juliet								
Specific Conductance @ 25 C	**14000**	umhos/cm	10.0	10.0	1	09/24/22 10:39	09/24/22 12:20		
Calculated Results	Analytical Method: Calculated Preparation Method: Calc Pace National - Mt. Juliet								
Sodium Adsorption Ratio	**42.5**				1	09/30/22 16:16	09/30/22 16:16	SAR	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SL-2 **Lab ID: 60410341002** Collected: 09/09/22 09:30 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
TPH-RRO (C28-C36)	**39.7**	mg/kg	25.1	5.6	1	09/15/22 21:00	09/16/22 09:59		
TPH-DRO (C10-C28)	**94.9**	mg/kg	12.5	5.6	1	09/15/22 21:00	09/16/22 09:59		
Surrogates									
n-Tetracosane (S)	136	%	31-152		1	09/15/22 21:00	09/16/22 09:59	646-31-1	
p-Terphenyl (S)	86	%	46-130		1	09/15/22 21:00	09/16/22 09:59	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
TPH-GRO	ND	mg/kg	14.8	1.8	1	09/22/22 16:01	09/23/22 02:06		
Surrogates									
4-Bromofluorobenzene (S)	99	%	66-130		1	09/22/22 16:01	09/23/22 02:06	460-00-4	
Metals (ICP) 6010B-NE493 Ch 2	Analytical Method: 6010B-NE493 Ch 2 Preparation Method: HWS Boron Pace National - Mt. Juliet								
Boron, Hot Water Soluble	**5110**	ug/L	200	16.7	1	09/19/22 11:06	09/29/22 18:46	7440-42-8H	
6010 MET ICP Red. Interference	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Barium	**192**	mg/kg	0.63	0.12	1	09/16/22 08:12	09/20/22 14:27	7440-39-3	
Cadmium	**0.45J**	mg/kg	0.63	0.091	1	09/16/22 08:12	09/20/22 14:27	7440-43-9	
Copper	**16.7**	mg/kg	2.5	0.52	1	09/16/22 08:12	09/20/22 14:27	7440-50-8	
Lead	**13.7**	mg/kg	1.3	0.36	1	09/16/22 08:12	09/20/22 14:27	7439-92-1	
Nickel	**16.5**	mg/kg	0.63	0.31	1	09/16/22 08:12	09/20/22 14:27	7440-02-0	
Selenium	**0.54J**	mg/kg	1.9	0.38	1	09/16/22 08:12	09/20/22 14:27	7782-49-2	
Silver	ND	mg/kg	0.88	0.14	1	09/16/22 08:12	09/20/22 14:27	7440-22-4	
Zinc	**72.3**	mg/kg	12.5	0.27	1	09/16/22 08:12	09/20/22 14:27	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Arsenic	**8.4**	mg/kg	0.91	0.21	10	09/16/22 08:25	09/22/22 17:18	7440-38-2	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
Acenaphthene	ND	mg/kg	0.0041	0.0022	1	09/15/22 20:56	09/19/22 19:39	83-32-9	
Anthracene	ND	mg/kg	0.0041	0.0022	1	09/15/22 20:56	09/19/22 19:39	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0041	0.0023	1	09/15/22 20:56	09/19/22 19:39	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0041	0.0017	1	09/15/22 20:56	09/19/22 19:39	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0041	0.0023	1	09/15/22 20:56	09/19/22 19:39	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0041	0.0023	1	09/15/22 20:56	09/19/22 19:39	207-08-9	
Chrysene	ND	mg/kg	0.0041	0.0022	1	09/15/22 20:56	09/19/22 19:39	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0041	0.0022	1	09/15/22 20:56	09/19/22 19:39	53-70-3	
Fluoranthene	ND	mg/kg	0.0041	0.0029	1	09/15/22 20:56	09/19/22 19:39	206-44-0	
Fluorene	**0.0041J**	mg/kg	0.0041	0.0027	1	09/15/22 20:56	09/19/22 19:39	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0041	0.0022	1	09/15/22 20:56	09/19/22 19:39	193-39-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SL-2 **Lab ID: 60410341002** Collected: 09/09/22 09:30 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
1-Methylnaphthalene	**0.042**	mg/kg	0.0041	0.0020	1	09/15/22 20:56	09/19/22 19:39	90-12-0	L2
2-Methylnaphthalene	**0.047**	mg/kg	0.0041	0.0025	1	09/15/22 20:56	09/19/22 19:39	91-57-6	
Naphthalene	**0.030**	mg/kg	0.0041	0.0021	1	09/15/22 20:56	09/19/22 19:39	91-20-3	
Pyrene	ND	mg/kg	0.0041	0.0027	1	09/15/22 20:56	09/19/22 19:39	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	71	%	40-120		1	09/15/22 20:56	09/19/22 19:39	321-60-8	
Terphenyl-d14 (S)	79	%	45-130		1	09/15/22 20:56	09/19/22 19:39	1718-51-0	
8260C MSV 5035A Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
Benzene	**0.0035J**	mg/kg	0.0075	0.00068	1	09/15/22 14:48	09/16/22 12:49	71-43-2	
Ethylbenzene	ND	mg/kg	0.0075	0.0013	1	09/15/22 14:48	09/16/22 12:49	100-41-4	
Toluene	ND	mg/kg	0.030	0.0067	1	09/15/22 14:48	09/16/22 12:49	108-88-3	
1,2,4-Trimethylbenzene	**0.0020J**	mg/kg	0.0075	0.0010	1	09/15/22 14:48	09/16/22 12:49	95-63-6	
1,3,5-Trimethylbenzene	**0.0016J**	mg/kg	0.0075	0.00065	1	09/15/22 14:48	09/16/22 12:49	108-67-8	
Xylene (Total)	ND	mg/kg	0.022	0.0055	1	09/15/22 14:48	09/16/22 12:49	1330-20-7	
Surrogates									
Toluene-d8 (S)	112	%	80-120		1	09/15/22 14:48	09/16/22 12:49	2037-26-5	
4-Bromofluorobenzene (S)	104	%	83-119		1	09/15/22 14:48	09/16/22 12:49	460-00-4	
1,2-Dichlorobenzene-d4 (S)	99	%	80-120		1	09/15/22 14:48	09/16/22 12:49	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974 Pace Analytical Services - Kansas City								
Percent Moisture	**20.2**	%	0.50	0.50	1		09/15/22 09:26		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**78.8**	%			1	09/19/22 15:12	09/19/22 15:18		
Wet Chemistry 7199	Analytical Method: EPA 7199 Preparation Method: 3060A Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	mg/kg	1.27	0.324	1	10/03/22 18:00	10/05/22 01:27	18540-29-9	
Wet Chemistry 9045D	Analytical Method: EPA 9045D Preparation Method: 9045C/9045D Pace National - Mt. Juliet								
pH	**7.66**	Std. Units		0.10	1	09/26/22 11:00	09/26/22 13:00		H3
Wet Chemistry 9050AMod	Analytical Method: EPA 9050 Preparation Method: 9050A Pace National - Mt. Juliet								
Specific Conductance @ 25 C	**25000**	umhos/cm	10.0	10.0	1	09/24/22 10:39	09/24/22 12:20		
Calculated Results	Analytical Method: Calculated Preparation Method: Calc Pace National - Mt. Juliet								
Sodium Adsorption Ratio	**84.3**				1	09/30/22 16:19	09/30/22 16:19	SAR	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SL-3 **Lab ID: 60410341003** Collected: 09/09/22 09:40 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
TPH-RRO (C28-C36)	ND	mg/kg	24.6	5.5	1	09/15/22 21:00	09/16/22 11:06		
TPH-DRO (C10-C28)	ND	mg/kg	12.3	5.5	1	09/15/22 21:00	09/16/22 11:06		
Surrogates									
n-Tetracosane (S)	66	%	31-152		1	09/15/22 21:00	09/16/22 11:06	646-31-1	
p-Terphenyl (S)	72	%	46-130		1	09/15/22 21:00	09/16/22 11:06	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
TPH-GRO	ND	mg/kg	14.0	1.7	1	09/22/22 16:01	09/23/22 02:37		
Surrogates									
4-Bromofluorobenzene (S)	101	%	66-130		1	09/22/22 16:01	09/23/22 02:37	460-00-4	
Metals (ICP) 6010B-NE493 Ch 2	Analytical Method: 6010B-NE493 Ch 2 Preparation Method: HWS Boron Pace National - Mt. Juliet								
Boron, Hot Water Soluble	**5510**	ug/L	200	16.7	1	09/19/22 11:06	09/29/22 18:49	7440-42-8H	
6010 MET ICP Red. Interference	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Barium	**424**	mg/kg	0.56	0.11	1	09/16/22 08:12	09/20/22 14:29	7440-39-3	
Cadmium	**0.50J**	mg/kg	0.56	0.081	1	09/16/22 08:12	09/20/22 14:29	7440-43-9	
Copper	**16.8**	mg/kg	2.2	0.46	1	09/16/22 08:12	09/20/22 14:29	7440-50-8	
Lead	**13.5**	mg/kg	1.1	0.32	1	09/16/22 08:12	09/20/22 14:29	7439-92-1	
Nickel	**16.4**	mg/kg	0.56	0.28	1	09/16/22 08:12	09/20/22 14:29	7440-02-0	
Selenium	**0.60J**	mg/kg	1.7	0.34	1	09/16/22 08:12	09/20/22 14:29	7782-49-2	
Silver	ND	mg/kg	0.79	0.12	1	09/16/22 08:12	09/20/22 14:29	7440-22-4	
Zinc	**95.3**	mg/kg	11.2	0.24	1	09/16/22 08:12	09/20/22 14:29	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Arsenic	**8.8**	mg/kg	1.1	0.26	10	09/16/22 08:25	09/22/22 17:21	7440-38-2	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
Acenaphthene	ND	mg/kg	0.0040	0.0022	1	09/15/22 20:56	09/19/22 19:57	83-32-9	
Anthracene	ND	mg/kg	0.0040	0.0021	1	09/15/22 20:56	09/19/22 19:57	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0040	0.0022	1	09/15/22 20:56	09/19/22 19:57	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0040	0.0017	1	09/15/22 20:56	09/19/22 19:57	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0040	0.0022	1	09/15/22 20:56	09/19/22 19:57	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0040	0.0023	1	09/15/22 20:56	09/19/22 19:57	207-08-9	
Chrysene	ND	mg/kg	0.0040	0.0022	1	09/15/22 20:56	09/19/22 19:57	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0040	0.0022	1	09/15/22 20:56	09/19/22 19:57	53-70-3	
Fluoranthene	ND	mg/kg	0.0040	0.0028	1	09/15/22 20:56	09/19/22 19:57	206-44-0	
Fluorene	ND	mg/kg	0.0040	0.0026	1	09/15/22 20:56	09/19/22 19:57	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0040	0.0021	1	09/15/22 20:56	09/19/22 19:57	193-39-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SL-3 **Lab ID: 60410341003** Collected: 09/09/22 09:40 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
1-Methylnaphthalene	**0.011**	mg/kg	0.0040	0.0019	1	09/15/22 20:56	09/19/22 19:57	90-12-0	L2
2-Methylnaphthalene	**0.0098**	mg/kg	0.0040	0.0025	1	09/15/22 20:56	09/19/22 19:57	91-57-6	
Naphthalene	**0.023**	mg/kg	0.0040	0.0021	1	09/15/22 20:56	09/19/22 19:57	91-20-3	
Pyrene	ND	mg/kg	0.0040	0.0026	1	09/15/22 20:56	09/19/22 19:57	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	77	%	40-120		1	09/15/22 20:56	09/19/22 19:57	321-60-8	
Terphenyl-d14 (S)	86	%	45-130		1	09/15/22 20:56	09/19/22 19:57	1718-51-0	
8260C MSV 5035A Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
Benzene	**0.0029J**	mg/kg	0.0073	0.00067	1	09/15/22 14:48	09/16/22 13:09	71-43-2	
Ethylbenzene	ND	mg/kg	0.0073	0.0013	1	09/15/22 14:48	09/16/22 13:09	100-41-4	
Toluene	ND	mg/kg	0.029	0.0065	1	09/15/22 14:48	09/16/22 13:09	108-88-3	
1,2,4-Trimethylbenzene	**0.0014J**	mg/kg	0.0073	0.0010	1	09/15/22 14:48	09/16/22 13:09	95-63-6	
1,3,5-Trimethylbenzene	**0.00068J**	mg/kg	0.0073	0.00063	1	09/15/22 14:48	09/16/22 13:09	108-67-8	
Xylene (Total)	ND	mg/kg	0.022	0.0054	1	09/15/22 14:48	09/16/22 13:09	1330-20-7	
Surrogates									
Toluene-d8 (S)	108	%	80-120		1	09/15/22 14:48	09/16/22 13:09	2037-26-5	
4-Bromofluorobenzene (S)	103	%	83-119		1	09/15/22 14:48	09/16/22 13:09	460-00-4	
1,2-Dichlorobenzene-d4 (S)	99	%	80-120		1	09/15/22 14:48	09/16/22 13:09	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974 Pace Analytical Services - Kansas City								
Percent Moisture	**19.1**	%	0.50	0.50	1		09/15/22 09:26		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**70.3**	%			1	09/19/22 15:12	09/19/22 15:18		
Wet Chemistry 7199	Analytical Method: EPA 7199 Preparation Method: 3060A Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	mg/kg	1.42	0.363	1	10/03/22 18:00	10/05/22 01:32	18540-29-9	
Wet Chemistry 9045D	Analytical Method: EPA 9045D Preparation Method: 9045C/9045D Pace National - Mt. Juliet								
pH	**8.66**	Std. Units		0.10	1	09/26/22 11:00	09/26/22 13:00		H3
Wet Chemistry 9050AMod	Analytical Method: EPA 9050 Preparation Method: 9050A Pace National - Mt. Juliet								
Specific Conductance @ 25 C	**7120**	umhos/cm	10.0	10.0	1	09/24/22 10:39	09/24/22 12:20		
Calculated Results	Analytical Method: Calculated Preparation Method: Calc Pace National - Mt. Juliet								
Sodium Adsorption Ratio	**62.8**				1	09/30/22 16:22	09/30/22 16:22	SAR	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SL-4 **Lab ID: 60410341004** Collected: 09/09/22 09:50 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
TPH-RRO (C28-C36)	ND	mg/kg	25.2	5.6	1	09/15/22 21:00	09/16/22 11:14		
TPH-DRO (C10-C28)	ND	mg/kg	12.6	5.6	1	09/15/22 21:00	09/16/22 11:14		
Surrogates									
n-Tetracosane (S)	62	%	31-152		1	09/15/22 21:00	09/16/22 11:14	646-31-1	
p-Terphenyl (S)	69	%	46-130		1	09/15/22 21:00	09/16/22 11:14	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
TPH-GRO	ND	mg/kg	14.6	1.8	1	09/22/22 16:01	09/23/22 02:53		
Surrogates									
4-Bromofluorobenzene (S)	99	%	66-130		1	09/22/22 16:01	09/23/22 02:53	460-00-4	
Metals (ICP) 6010B-NE493 Ch 2	Analytical Method: 6010B-NE493 Ch 2 Preparation Method: HWS Boron Pace National - Mt. Juliet								
Boron, Hot Water Soluble	**1380**	ug/L	200	16.7	1	09/19/22 11:06	09/29/22 18:52	7440-42-8H	
6010 MET ICP Red. Interference	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Barium	**179**	mg/kg	0.42	0.084	1	09/16/22 08:12	09/20/22 14:32	7440-39-3	
Cadmium	**0.51**	mg/kg	0.42	0.061	1	09/16/22 08:12	09/20/22 14:32	7440-43-9	
Copper	**15.0**	mg/kg	1.7	0.35	1	09/16/22 08:12	09/20/22 14:32	7440-50-8	
Lead	**12.5**	mg/kg	0.84	0.24	1	09/16/22 08:12	09/20/22 14:32	7439-92-1	
Nickel	**14.4**	mg/kg	0.42	0.21	1	09/16/22 08:12	09/20/22 14:32	7440-02-0	
Selenium	**0.42J**	mg/kg	1.3	0.26	1	09/16/22 08:12	09/20/22 14:32	7782-49-2	
Silver	ND	mg/kg	0.59	0.091	1	09/16/22 08:12	09/20/22 14:32	7440-22-4	
Zinc	**63.9**	mg/kg	8.4	0.18	1	09/16/22 08:12	09/20/22 14:32	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Arsenic	**7.7**	mg/kg	0.84	0.19	10	09/16/22 08:25	09/22/22 17:24	7440-38-2	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
Acenaphthene	ND	mg/kg	0.0042	0.0023	1	09/15/22 20:56	09/19/22 20:16	83-32-9	
Anthracene	ND	mg/kg	0.0042	0.0022	1	09/15/22 20:56	09/19/22 20:16	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0042	0.0023	1	09/15/22 20:56	09/19/22 20:16	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0042	0.0018	1	09/15/22 20:56	09/19/22 20:16	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0042	0.0023	1	09/15/22 20:56	09/19/22 20:16	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0042	0.0024	1	09/15/22 20:56	09/19/22 20:16	207-08-9	
Chrysene	ND	mg/kg	0.0042	0.0023	1	09/15/22 20:56	09/19/22 20:16	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0042	0.0023	1	09/15/22 20:56	09/19/22 20:16	53-70-3	
Fluoranthene	ND	mg/kg	0.0042	0.0029	1	09/15/22 20:56	09/19/22 20:16	206-44-0	
Fluorene	ND	mg/kg	0.0042	0.0028	1	09/15/22 20:56	09/19/22 20:16	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0042	0.0022	1	09/15/22 20:56	09/19/22 20:16	193-39-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SL-4 **Lab ID: 60410341004** Collected: 09/09/22 09:50 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
1-Methylnaphthalene	ND	mg/kg	0.0042	0.0020	1	09/15/22 20:56	09/19/22 20:16	90-12-0	L2
2-Methylnaphthalene	ND	mg/kg	0.0042	0.0026	1	09/15/22 20:56	09/19/22 20:16	91-57-6	
Naphthalene	**0.0043**	mg/kg	0.0042	0.0022	1	09/15/22 20:56	09/19/22 20:16	91-20-3	
Pyrene	ND	mg/kg	0.0042	0.0028	1	09/15/22 20:56	09/19/22 20:16	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	72	%	40-120		1	09/15/22 20:56	09/19/22 20:16	321-60-8	
Terphenyl-d14 (S)	79	%	45-130		1	09/15/22 20:56	09/19/22 20:16	1718-51-0	
8260C MSV 5035A Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
Benzene	**0.0025J**	mg/kg	0.0078	0.00071	1	09/15/22 14:48	09/16/22 13:28	71-43-2	
Ethylbenzene	**0.0021J**	mg/kg	0.0078	0.0013	1	09/15/22 14:48	09/16/22 13:28	100-41-4	
Toluene	ND	mg/kg	0.031	0.0069	1	09/15/22 14:48	09/16/22 13:28	108-88-3	
1,2,4-Trimethylbenzene	**0.0092**	mg/kg	0.0078	0.0011	1	09/15/22 14:48	09/16/22 13:28	95-63-6	
1,3,5-Trimethylbenzene	**0.0027J**	mg/kg	0.0078	0.00068	1	09/15/22 14:48	09/16/22 13:28	108-67-8	
Xylene (Total)	**0.015J**	mg/kg	0.023	0.0057	1	09/15/22 14:48	09/16/22 13:28	1330-20-7	
Surrogates									
Toluene-d8 (S)	110	%	80-120		1	09/15/22 14:48	09/16/22 13:28	2037-26-5	
4-Bromofluorobenzene (S)	103	%	83-119		1	09/15/22 14:48	09/16/22 13:28	460-00-4	
1,2-Dichlorobenzene-d4 (S)	100	%	80-120		1	09/15/22 14:48	09/16/22 13:28	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974 Pace Analytical Services - Kansas City								
Percent Moisture	**22.1**	%	0.50	0.50	1		09/15/22 09:26		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**73.5**	%			1	09/19/22 15:12	09/19/22 15:18		
Wet Chemistry 7199	Analytical Method: EPA 7199 Preparation Method: 3060A Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	mg/kg	1.36	0.347	1	10/03/22 18:00	10/05/22 01:47	18540-29-9	
Wet Chemistry 9045D	Analytical Method: EPA 9045D Preparation Method: 9045C/9045D Pace National - Mt. Juliet								
pH	**7.51**	Std. Units		0.10	1	09/26/22 11:00	09/26/22 13:00		H3
Wet Chemistry 9050AMod	Analytical Method: EPA 9050 Preparation Method: 9050A Pace National - Mt. Juliet								
Specific Conductance @ 25 C	**19000**	umhos/cm	10.0	10.0	1	09/24/22 10:39	09/24/22 12:20		
Calculated Results	Analytical Method: Calculated Preparation Method: Calc Pace National - Mt. Juliet								
Sodium Adsorption Ratio	**70.8**				1	09/30/22 16:25	09/30/22 16:25	SAR	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SL-5 '7' **Lab ID: 60410341005** Collected: 09/09/22 10:00 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
TPH-RRO (C28-C36)	**15.0J**	mg/kg	22.9	5.1	1	09/15/22 21:00	09/16/22 10:24		
TPH-DRO (C10-C28)	**10.8J**	mg/kg	11.5	5.1	1	09/15/22 21:00	09/16/22 10:24		
Surrogates									
n-Tetracosane (S)	63	%	31-152		1	09/15/22 21:00	09/16/22 10:24	646-31-1	
p-Terphenyl (S)	67	%	46-130		1	09/15/22 21:00	09/16/22 10:24	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
TPH-GRO	ND	mg/kg	13.0	1.6	1	09/22/22 16:01	09/23/22 03:09		
Surrogates									
4-Bromofluorobenzene (S)	98	%	66-130		1	09/22/22 16:01	09/23/22 03:09	460-00-4	
Metals (ICP) 6010B-NE493 Ch 2	Analytical Method: 6010B-NE493 Ch 2 Preparation Method: HWS Boron Pace National - Mt. Juliet								
Boron, Hot Water Soluble	**2530**	ug/L	200	16.7	1	09/20/22 10:47	09/30/22 02:22	7440-42-8H	
6010 MET ICP Red. Interference	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Barium	**324**	mg/kg	0.49	0.097	1	09/16/22 08:12	09/20/22 14:34	7440-39-3	
Cadmium	**0.50**	mg/kg	0.49	0.071	1	09/16/22 08:12	09/20/22 14:34	7440-43-9	
Copper	**15.0**	mg/kg	2.0	0.41	1	09/16/22 08:12	09/20/22 14:34	7440-50-8	
Lead	**12.0**	mg/kg	0.98	0.28	1	09/16/22 08:12	09/20/22 14:34	7439-92-1	
Nickel	**15.4**	mg/kg	0.49	0.25	1	09/16/22 08:12	09/20/22 14:34	7440-02-0	
Selenium	**0.46J**	mg/kg	1.5	0.30	1	09/16/22 08:12	09/20/22 14:34	7782-49-2	
Silver	ND	mg/kg	0.69	0.11	1	09/16/22 08:12	09/20/22 14:34	7440-22-4	
Zinc	**108**	mg/kg	9.8	0.21	1	09/16/22 08:12	09/20/22 14:34	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Arsenic	**7.4**	mg/kg	0.83	0.19	10	09/16/22 08:25	09/22/22 17:27	7440-38-2	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
Acenaphthene	ND	mg/kg	0.0039	0.0021	1	09/15/22 20:56	09/19/22 20:34	83-32-9	
Anthracene	ND	mg/kg	0.0039	0.0020	1	09/15/22 20:56	09/19/22 20:34	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0039	0.0021	1	09/15/22 20:56	09/19/22 20:34	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0039	0.0016	1	09/15/22 20:56	09/19/22 20:34	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0039	0.0021	1	09/15/22 20:56	09/19/22 20:34	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0039	0.0022	1	09/15/22 20:56	09/19/22 20:34	207-08-9	
Chrysene	ND	mg/kg	0.0039	0.0021	1	09/15/22 20:56	09/19/22 20:34	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0039	0.0021	1	09/15/22 20:56	09/19/22 20:34	53-70-3	
Fluoranthene	ND	mg/kg	0.0039	0.0027	1	09/15/22 20:56	09/19/22 20:34	206-44-0	
Fluorene	ND	mg/kg	0.0039	0.0025	1	09/15/22 20:56	09/19/22 20:34	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0039	0.0020	1	09/15/22 20:56	09/19/22 20:34	193-39-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SL-5 '7' **Lab ID: 60410341005** Collected: 09/09/22 10:00 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
1-Methylnaphthalene	ND	mg/kg	0.0039	0.0019	1	09/15/22 20:56	09/19/22 20:34	90-12-0	L2
2-Methylnaphthalene	ND	mg/kg	0.0039	0.0024	1	09/15/22 20:56	09/19/22 20:34	91-57-6	
Naphthalene	ND	mg/kg	0.0039	0.0020	1	09/15/22 20:56	09/19/22 20:34	91-20-3	
Pyrene	ND	mg/kg	0.0039	0.0025	1	09/15/22 20:56	09/19/22 20:34	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	40-120		1	09/15/22 20:56	09/19/22 20:34	321-60-8	
Terphenyl-d14 (S)	73	%	45-130		1	09/15/22 20:56	09/19/22 20:34	1718-51-0	
8260C MSV 5035A Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
Benzene	**0.0020J**	mg/kg	0.0068	0.00062	1	09/15/22 14:48	09/16/22 13:49	71-43-2	
Ethylbenzene	ND	mg/kg	0.0068	0.0012	1	09/15/22 14:48	09/16/22 13:49	100-41-4	
Toluene	ND	mg/kg	0.027	0.0060	1	09/15/22 14:48	09/16/22 13:49	108-88-3	
1,2,4-Trimethylbenzene	**0.00098J**	mg/kg	0.0068	0.00093	1	09/15/22 14:48	09/16/22 13:49	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0068	0.00059	1	09/15/22 14:48	09/16/22 13:49	108-67-8	
Xylene (Total)	ND	mg/kg	0.020	0.0050	1	09/15/22 14:48	09/16/22 13:49	1330-20-7	
Surrogates									
Toluene-d8 (S)	114	%	80-120		1	09/15/22 14:48	09/16/22 13:49	2037-26-5	
4-Bromofluorobenzene (S)	104	%	83-119		1	09/15/22 14:48	09/16/22 13:49	460-00-4	
1,2-Dichlorobenzene-d4 (S)	98	%	80-120		1	09/15/22 14:48	09/16/22 13:49	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974 Pace Analytical Services - Kansas City								
Percent Moisture	**15.0**	%	0.50	0.50	1		09/15/22 09:26		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**72.7**	%			1	09/19/22 15:12	09/19/22 15:18		
Wet Chemistry 7199	Analytical Method: EPA 7199 Preparation Method: 3060A Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	mg/kg	1.38	0.351	1	10/03/22 18:00	10/05/22 01:53	18540-29-9	
Wet Chemistry 9045D	Analytical Method: EPA 9045D Preparation Method: 9045C/9045D Pace National - Mt. Juliet								
pH	**9.35**	Std. Units		0.10	1	09/26/22 11:00	09/26/22 13:00		H3
Wet Chemistry 9050AMod	Analytical Method: EPA 9050 Preparation Method: 9050A Pace National - Mt. Juliet								
Specific Conductance @ 25 C	**3560**	umhos/cm	10.0	10.0	1	09/24/22 10:39	09/24/22 12:20		
Calculated Results	Analytical Method: Calculated Preparation Method: Calc Pace National - Mt. Juliet								
Sodium Adsorption Ratio	**32.4**				1	09/29/22 23:07	09/29/22 23:07	SAR	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SOIL PILE **Lab ID: 60410341006** Collected: 09/09/22 10:10 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
TPH-RRO (C28-C36)	**52.1**	mg/kg	22.9	5.1	1	09/15/22 21:00	09/16/22 10:33		
TPH-DRO (C10-C28)	**64.9**	mg/kg	11.4	5.1	1	09/15/22 21:00	09/16/22 10:33		
Surrogates									
n-Tetracosane (S)	114	%	31-152		1	09/15/22 21:00	09/16/22 10:33	646-31-1	
p-Terphenyl (S)	74	%	46-130		1	09/15/22 21:00	09/16/22 10:33	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
TPH-GRO	ND	mg/kg	13.1	1.6	1	09/22/22 16:01	09/23/22 03:24		
Surrogates									
4-Bromofluorobenzene (S)	101	%	66-130		1	09/22/22 16:01	09/23/22 03:24	460-00-4	
Metals (ICP) 6010B-NE493 Ch 2	Analytical Method: 6010B-NE493 Ch 2 Preparation Method: HWS Boron Pace National - Mt. Juliet								
Boron, Hot Water Soluble	**2690**	ug/L	200	16.7	1	09/20/22 10:47	09/30/22 02:26	7440-42-8H	
6010 MET ICP Red. Interference	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Barium	**195**	mg/kg	0.53	0.11	1	09/16/22 08:12	09/20/22 14:36	7440-39-3	
Cadmium	**0.47J**	mg/kg	0.53	0.077	1	09/16/22 08:12	09/20/22 14:36	7440-43-9	
Copper	**14.4**	mg/kg	2.1	0.44	1	09/16/22 08:12	09/20/22 14:36	7440-50-8	
Lead	**12.4**	mg/kg	1.1	0.31	1	09/16/22 08:12	09/20/22 14:36	7439-92-1	
Nickel	**13.5**	mg/kg	0.53	0.26	1	09/16/22 08:12	09/20/22 14:36	7440-02-0	
Selenium	**0.51J**	mg/kg	1.6	0.32	1	09/16/22 08:12	09/20/22 14:36	7782-49-2	
Silver	ND	mg/kg	0.74	0.11	1	09/16/22 08:12	09/20/22 14:36	7440-22-4	
Zinc	**94.6**	mg/kg	10.6	0.22	1	09/16/22 08:12	09/20/22 14:36	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City								
Arsenic	**9.3**	mg/kg	0.80	0.18	10	09/16/22 08:25	09/22/22 17:29	7440-38-2	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
Acenaphthene	ND	mg/kg	0.0075	0.0041	1	09/15/22 20:56	09/19/22 20:52	83-32-9	
Anthracene	ND	mg/kg	0.0075	0.0039	1	09/15/22 20:56	09/19/22 20:52	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0075	0.0042	1	09/15/22 20:56	09/19/22 20:52	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0075	0.0031	1	09/15/22 20:56	09/19/22 20:52	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0075	0.0041	1	09/15/22 20:56	09/19/22 20:52	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0075	0.0043	1	09/15/22 20:56	09/19/22 20:52	207-08-9	
Chrysene	ND	mg/kg	0.0075	0.0041	1	09/15/22 20:56	09/19/22 20:52	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0075	0.0041	1	09/15/22 20:56	09/19/22 20:52	53-70-3	
Fluoranthene	ND	mg/kg	0.0075	0.0052	1	09/15/22 20:56	09/19/22 20:52	206-44-0	
Fluorene	**0.0050J**	mg/kg	0.0075	0.0049	1	09/15/22 20:56	09/19/22 20:52	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0075	0.0039	1	09/15/22 20:56	09/19/22 20:52	193-39-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410341

Sample: SOIL PILE **Lab ID: 60410341006** Collected: 09/09/22 10:10 Received: 09/14/22 11:10 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Kansas City								
1-Methylnaphthalene	**0.040**	mg/kg	0.0075	0.0036	1	09/15/22 20:56	09/19/22 20:52	90-12-0	L2
2-Methylnaphthalene	**0.043**	mg/kg	0.0075	0.0046	1	09/15/22 20:56	09/19/22 20:52	91-57-6	
Naphthalene	**0.018**	mg/kg	0.0075	0.0039	1	09/15/22 20:56	09/19/22 20:52	91-20-3	
Pyrene	ND	mg/kg	0.0075	0.0049	1	09/15/22 20:56	09/19/22 20:52	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	82	%	40-120		1	09/15/22 20:56	09/19/22 20:52	321-60-8	
Terphenyl-d14 (S)	91	%	45-130		1	09/15/22 20:56	09/19/22 20:52	1718-51-0	
8260C MSV 5035A Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A/5030B Pace Analytical Services - Kansas City								
Benzene	**0.0027J**	mg/kg	0.0066	0.00060	1	09/15/22 14:48	09/16/22 14:08	71-43-2	
Ethylbenzene	ND	mg/kg	0.0066	0.0011	1	09/15/22 14:48	09/16/22 14:08	100-41-4	
Toluene	ND	mg/kg	0.026	0.0059	1	09/15/22 14:48	09/16/22 14:08	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0066	0.00091	1	09/15/22 14:48	09/16/22 14:08	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0066	0.00057	1	09/15/22 14:48	09/16/22 14:08	108-67-8	
Xylene (Total)	ND	mg/kg	0.020	0.0049	1	09/15/22 14:48	09/16/22 14:08	1330-20-7	
Surrogates									
Toluene-d8 (S)	111	%	80-120		1	09/15/22 14:48	09/16/22 14:08	2037-26-5	
4-Bromofluorobenzene (S)	103	%	83-119		1	09/15/22 14:48	09/16/22 14:08	460-00-4	
1,2-Dichlorobenzene-d4 (S)	99	%	80-120		1	09/15/22 14:48	09/16/22 14:08	2199-69-1	
Percent Moisture	Analytical Method: ASTM D2974 Pace Analytical Services - Kansas City								
Percent Moisture	**14.0**	%	0.50	0.50	1		09/15/22 09:27		
Total Solids 2540 G-2011	Analytical Method: SM 2540G Preparation Method: SM 2540 G Pace National - Mt. Juliet								
Total Solids	**87.5**	%			1	09/19/22 15:12	09/19/22 15:18		
Wet Chemistry 7199	Analytical Method: EPA 7199 Preparation Method: 3060A Pace National - Mt. Juliet								
Chromium, Hexavalent	ND	mg/kg	1.14	0.291	1	10/03/22 18:00	10/05/22 01:58	18540-29-9	
Wet Chemistry 9045D	Analytical Method: EPA 9045D Preparation Method: 9045C/9045D Pace National - Mt. Juliet								
pH	**7.37**	Std. Units		0.10	1	09/26/22 11:00	09/26/22 13:00		H3
Wet Chemistry 9050AMod	Analytical Method: EPA 9050 Preparation Method: 9050A Pace National - Mt. Juliet								
Specific Conductance @ 25 C	**26000**	umhos/cm	10.0	10.0	1	09/24/22 10:39	09/24/22 12:20		
Calculated Results	Analytical Method: Calculated Preparation Method: Calc Pace National - Mt. Juliet								
Sodium Adsorption Ratio	**63.0**				1	09/30/22 16:10	09/30/22 16:10	SAR	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 808947 | Analysis Method: EPA 8015B
QC Batch Method: EPA 5035A/5030B | Analysis Description: Gasoline Range Organics
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

METHOD BLANK: 3217660 Matrix: Solid
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	1.2	09/23/22 00:00	
4-Bromofluorobenzene (S)	%	100	66-130		09/23/22 00:00	

LABORATORY CONTROL SAMPLE: 3217661

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	54.7	109	70-130	
4-Bromofluorobenzene (S)	%			99	66-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3217662 3217663

Parameter	Units	60410331001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-GRO	mg/kg	ND	49.9	49.9	58.3	57.6	116	114	70-130	1	25	
4-Bromofluorobenzene (S)	%						102	104	66-130			

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 1928100
QC Batch Method: HWS Boron
Analysis Method: 6010B-NE493 Ch 2
Analysis Description: Metals (ICP) 6010B-NE493 Ch 2
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004

METHOD BLANK: R3843060-1 Matrix: Solid
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Hot Water Soluble	ug/L	18.2J	200	16.7	09/29/22 17:29	J

LABORATORY CONTROL SAMPLE & LCSD: R3843060-2 R3843060-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Boron, Hot Water Soluble	ug/L	1000	1060	1040	106	104	80.0-120	2.68	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 1928101
QC Batch Method: HWS Boron
Analysis Method: 6010B-NE493 Ch 2
Analysis Description: Metals (ICP) 6010B-NE493 Ch 2
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 60410341005, 60410341006

METHOD BLANK: R3843099-1 Matrix: Solid
Associated Lab Samples: 60410341005, 60410341006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron, Hot Water Soluble	ug/L	ND	200	16.7	09/30/22 02:15	

LABORATORY CONTROL SAMPLE & LCSD: R3843099-2 R3843099-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Boron, Hot Water Soluble	ug/L	1000	1090	1080	109	108	80.0-120	0.897	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 807994
QC Batch Method: EPA 3050
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

METHOD BLANK: 3214265 Matrix: Solid
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Barium	mg/kg	0.20J	0.50	0.099	09/20/22 13:55	
Cadmium	mg/kg	ND	0.50	0.072	09/20/22 13:55	
Copper	mg/kg	ND	2.0	0.41	09/20/22 13:55	
Lead	mg/kg	ND	1.0	0.29	09/20/22 13:55	
Nickel	mg/kg	ND	0.50	0.25	09/20/22 13:55	
Selenium	mg/kg	ND	1.5	0.31	09/20/22 13:55	
Silver	mg/kg	ND	0.70	0.11	09/20/22 13:55	
Zinc	mg/kg	ND	10.0	0.21	09/20/22 13:55	

LABORATORY CONTROL SAMPLE: 3214266

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/kg	100	97.7	98	80-120	
Cadmium	mg/kg	100	94.8	95	80-120	
Copper	mg/kg	100	94.4	94	80-120	
Lead	mg/kg	100	96.0	96	80-120	
Nickel	mg/kg	100	99.1	99	80-120	
Selenium	mg/kg	100	82.1	82	80-120	
Silver	mg/kg	50	44.3	89	80-120	
Zinc	mg/kg	100	95.9	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3214267 3214268

Parameter	Units	60410331001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/kg	214	78.8	78.8	284	268	89	69	75-125	6	20	M1
Cadmium	mg/kg	0.49	78.8	78.8	61.8	62.3	78	78	75-125	1	20	
Copper	mg/kg	15.9	78.8	78.8	86.1	87.0	89	90	75-125	1	20	
Lead	mg/kg	12.2	78.8	78.8	75.7	76.0	81	81	75-125	0	20	
Nickel	mg/kg	14.2	78.8	78.8	79.5	80.1	83	84	75-125	1	20	
Selenium	mg/kg	0.56J	78.8	78.8	57.2	57.5	72	72	75-125	0	20	M1
Silver	mg/kg	ND	39.4	39.4	32.0	31.9	81	81	75-125	0	20	
Zinc	mg/kg	50.7	78.8	78.8	116	117	83	85	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 807999
QC Batch Method: EPA 3050
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

METHOD BLANK: 3214279 Matrix: Solid
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	0.23	09/22/22 17:02	

LABORATORY CONTROL SAMPLE: 3214280

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	100	96.5	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3214281 3214282

Parameter	Units	60410341001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	8.4	92.4	103	93.0	109	91	97	75-125	16	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 807907
QC Batch Method: EPA 5035A/5030B
Analysis Method: EPA 8260C
Analysis Description: 8260C MSV 5035A Low Level
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

METHOD BLANK: 3214062 Matrix: Solid
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	mg/kg	ND	0.0050	0.00069	09/16/22 08:47	
1,3,5-Trimethylbenzene	mg/kg	ND	0.0050	0.00043	09/16/22 08:47	
Benzene	mg/kg	ND	0.0050	0.00046	09/16/22 08:47	
Ethylbenzene	mg/kg	ND	0.0050	0.00087	09/16/22 08:47	
Toluene	mg/kg	ND	0.020	0.0044	09/16/22 08:47	
Xylene (Total)	mg/kg	ND	0.015	0.0037	09/16/22 08:47	
1,2-Dichlorobenzene-d4 (S)	%	100	80-120		09/16/22 08:47	
4-Bromofluorobenzene (S)	%	104	83-119		09/16/22 08:47	
Toluene-d8 (S)	%	110	80-120		09/16/22 08:47	

LABORATORY CONTROL SAMPLE: 3214063

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	mg/kg	1.2	1.3	104	79-121	
1,3,5-Trimethylbenzene	mg/kg	1.2	1.3	102	81-122	
Benzene	mg/kg	1.2	1.3	107	67-126	
Ethylbenzene	mg/kg	1.2	1.2	100	69-127	
Toluene	mg/kg	1.2	1.2	95	80-118	
Xylene (Total)	mg/kg	3.8	3.8	101	69-130	
1,2-Dichlorobenzene-d4 (S)	%			100	80-120	
4-Bromofluorobenzene (S)	%			100	83-119	
Toluene-d8 (S)	%			93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3214064 3214065

Parameter	Units	60410341006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trimethylbenzene	mg/kg	ND	1.6	1.6	1.5	1.6	93	99	10-124	7	68	
1,3,5-Trimethylbenzene	mg/kg	ND	1.6	1.6	1.5	1.6	91	98	10-125	7	65	
Benzene	mg/kg	0.0027J	1.6	1.6	1.6	1.7	95	100	17-134	6	53	
Ethylbenzene	mg/kg	ND	1.6	1.6	1.5	1.6	90	97	10-137	7	60	
Toluene	mg/kg	ND	1.6	1.6	1.4	1.5	86	91	13-131	6	60	
Xylene (Total)	mg/kg	ND	5	5	4.5	4.8	92	97	10-137	6	58	
1,2-Dichlorobenzene-d4 (S)	%						100	99	80-120			
4-Bromofluorobenzene (S)	%						102	101	83-119			
Toluene-d8 (S)	%						93	93	80-120			

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 807897 — Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 — Analysis Description: EPA 8015B
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

METHOD BLANK: 3214033 — Matrix: Solid
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH-DRO (C10-C28)	mg/kg	ND	10	4.5	09/16/22 08:21	
TPH-RRO (C28-C36)	mg/kg	ND	19.9	4.5	09/16/22 08:21	
n-Tetracosane (S)	%	60	31-152		09/16/22 08:21	
p-Terphenyl (S)	%	66	46-130		09/16/22 08:21	

LABORATORY CONTROL SAMPLE: 3214034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO (C10-C28)	mg/kg	83	71.5	86	74-124	
n-Tetracosane (S)	%			91	31-152	
p-Terphenyl (S)	%			100	46-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3214035 3214036

Parameter	Units	60410341001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-DRO (C10-C28)	mg/kg	44.0	102	101	97.6	103	53	58	30-130	5	35	
n-Tetracosane (S)	%						76	85	31-152			
p-Terphenyl (S)	%						78	80	46-130			

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 807896
QC Batch Method: EPA 3546
Analysis Method: EPA 8270 by SIM
Analysis Description: 8270/3546 MSSV PAH by SIM
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

METHOD BLANK: 3214028 Matrix: Solid
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	ND	0.0033	0.0016	09/19/22 16:19	
2-Methylnaphthalene	mg/kg	ND	0.0033	0.0020	09/19/22 16:19	
Acenaphthene	mg/kg	ND	0.0033	0.0018	09/19/22 16:19	
Anthracene	mg/kg	ND	0.0033	0.0017	09/19/22 16:19	
Benzo(a)anthracene	mg/kg	ND	0.0033	0.0018	09/19/22 16:19	
Benzo(a)pyrene	mg/kg	ND	0.0033	0.0014	09/19/22 16:19	
Benzo(b)fluoranthene	mg/kg	ND	0.0033	0.0018	09/19/22 16:19	
Benzo(k)fluoranthene	mg/kg	ND	0.0033	0.0019	09/19/22 16:19	
Chrysene	mg/kg	ND	0.0033	0.0018	09/19/22 16:19	
Dibenz(a,h)anthracene	mg/kg	ND	0.0033	0.0018	09/19/22 16:19	
Fluoranthene	mg/kg	ND	0.0033	0.0023	09/19/22 16:19	
Fluorene	mg/kg	ND	0.0033	0.0021	09/19/22 16:19	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0033	0.0017	09/19/22 16:19	
Naphthalene	mg/kg	ND	0.0033	0.0017	09/19/22 16:19	
Pyrene	mg/kg	ND	0.0033	0.0021	09/19/22 16:19	
2-Fluorobiphenyl (S)	%	68	40-120		09/19/22 16:19	
Terphenyl-d14 (S)	%	75	45-130		09/19/22 16:19	

LABORATORY CONTROL SAMPLE: 3214029

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	0.033	0.022	67	70-130	1e
2-Methylnaphthalene	mg/kg	0.033	0.023	69	55-120	
Acenaphthene	mg/kg	0.033	0.024	72	45-120	
Anthracene	mg/kg	0.033	0.025	75	50-120	
Benzo(a)anthracene	mg/kg	0.033	0.024	72	55-125	
Benzo(a)pyrene	mg/kg	0.033	0.023	69	45-120	
Benzo(b)fluoranthene	mg/kg	0.033	0.024	72	50-125	
Benzo(k)fluoranthene	mg/kg	0.033	0.024	72	55-120	
Chrysene	mg/kg	0.033	0.023	70	55-120	
Dibenz(a,h)anthracene	mg/kg	0.033	0.023	70	40-125	
Fluoranthene	mg/kg	0.033	0.026	78	50-125	
Fluorene	mg/kg	0.033	0.024	72	50-120	
Indeno(1,2,3-cd)pyrene	mg/kg	0.033	0.026	77	44-125	
Naphthalene	mg/kg	0.033	0.022	67	45-120	
Pyrene	mg/kg	0.033	0.025	75	50-125	
2-Fluorobiphenyl (S)	%			73	40-120	
Terphenyl-d14 (S)	%			75	45-130	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3214030 3214031

Parameter	Units	60410331001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	mg/kg	ND	0.035	0.035	0.023	0.019	66	55	50-145	18	61	
2-Methylnaphthalene	mg/kg	ND	0.035	0.035	0.024	0.020	70	57	50-120	19	61	
Acenaphthene	mg/kg	ND	0.035	0.035	0.025	0.021	72	61	10-150	16	42	
Anthracene	mg/kg	ND	0.035	0.035	0.027	0.024	79	68	10-160	14	54	
Benzo(a)anthracene	mg/kg	ND	0.035	0.035	0.028	0.024	79	69	10-160	14	62	
Benzo(a)pyrene	mg/kg	ND	0.035	0.035	0.026	0.023	74	65	10-150	13	66	
Benzo(b)fluoranthene	mg/kg	ND	0.035	0.035	0.028	0.024	80	70	10-165	13	61	
Benzo(k)fluoranthene	mg/kg	ND	0.035	0.035	0.026	0.023	75	66	10-165	13	53	
Chrysene	mg/kg	ND	0.035	0.035	0.025	0.022	72	63	10-150	13	57	
Dibenz(a,h)anthracene	mg/kg	ND	0.035	0.035	0.025	0.022	72	64	10-175	11	48	
Fluoranthene	mg/kg	ND	0.035	0.035	0.031	0.026	88	74	10-180	16	54	
Fluorene	mg/kg	ND	0.035	0.035	0.026	0.022	74	64	20-145	15	39	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.035	0.035	0.028	0.024	80	70	10-150	13	59	
Naphthalene	mg/kg	ND	0.035	0.035	0.022	0.018	64	52	10-165	21	54	
Pyrene	mg/kg	ND	0.035	0.035	0.028	0.024	82	69	10-180	16	61	
2-Fluorobiphenyl (S)	%						71	61	40-120			
Terphenyl-d14 (S)	%						79	71	45-130			

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 807796 | Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 | Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

METHOD BLANK: 3213542 Matrix: Solid
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	0.50	09/15/22 09:26	

SAMPLE DUPLICATE: 3213543

Parameter	Units	60410331001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.3	5.3	0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 1928305 — Analysis Method: SM 2540G
QC Batch Method: SM 2540 G — Analysis Description: Total Solids 2540 G-2011
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

METHOD BLANK: R3839261-1 Matrix: Solid
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00900			09/19/22 15:18	

LABORATORY CONTROL SAMPLE: R3839261-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.1	100	85.0-115	

SAMPLE DUPLICATE: R3839261-3

Parameter	Units	60410341002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	78.8	79.0	0.297	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 1936617
QC Batch Method: 3060A
Analysis Method: EPA 7199
Analysis Description: Wet Chemistry 7199
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

METHOD BLANK: R3844728-1 Matrix: Solid
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	mg/kg	ND	1.00	0.255	10/05/22 00:11	

LABORATORY CONTROL SAMPLE: R3844728-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	10.0	9.35	93.5	80.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3844728-6 R3844728-7

Parameter	Units	L1541362-01 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/kg	ND	25.7	25.7	22.3	22.6	86.5	87.9	75.0-125	1.55	20	

MATRIX SPIKE SAMPLE: R3844728-8

Parameter	Units	L1541362-01 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	ND	827	687	83.1	75.0-125	

SAMPLE DUPLICATE: R3844728-3

Parameter	Units	60410341001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	ND	ND	0.00	20	

SAMPLE DUPLICATE: R3844728-4

Parameter	Units	L1536693-02 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	ND	ND	0.00	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 1932334
QC Batch Method: 9045C/9045D
Analysis Method: EPA 9045D
Analysis Description: Wet Chemistry 9045D
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

LABORATORY CONTROL SAMPLE: R3841306-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH	Std. Units	10.0	9.92	99.2	99.0-101	

SAMPLE DUPLICATE: R3841306-2

Parameter	Units	L1539326-02 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	7.44	7.41	0.404	1	

SAMPLE DUPLICATE: R3841306-3

Parameter	Units	L1539447-06 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	8.37	8.33	0.479	1	

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
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 1928750
QC Batch Method: EPA 9050
Analysis Method: EPA 9050
Analysis Description: Wet Chemistry 9050AMod
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

METHOD BLANK: R3840953-1 Matrix: Solid
Associated Lab Samples:

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Specific Conductance @ 25 C	umhos/cm	ND	10.0	10.0	09/24/22 12:20	

LABORATORY CONTROL SAMPLE: R3840953-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance @ 25 C	umhos/cm	1120	1120	100	85.0-115	

SAMPLE DUPLICATE: R3840953-3

Parameter	Units	L1536652-01 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance @ 25 C	umhos/cm	8720	8730	0.115	20	

SAMPLE DUPLICATE: R3840953-4

Parameter	Units	L1536693-02 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance @ 25 C	umhos/cm	1500	1500	0.134	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410341

QC Batch: 1928750 | Analysis Method: EPA 9050
QC Batch Method: 9050A | Analysis Description: Wet Chemistry 9050AMod
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 60410341001, 60410341002, 60410341003, 60410341004, 60410341005, 60410341006

METHOD BLANK: R3840953-1 Matrix: Solid
Associated Lab Samples:

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Specific Conductance @ 25 C	umhos/cm	ND	10.0	10.0	09/24/22 12:20	

LABORATORY CONTROL SAMPLE: R3840953-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance @ 25 C	umhos/cm	1120	1120	100	85.0-115	

SAMPLE DUPLICATE: R3840953-3

Parameter	Units	L1536652-01 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance @ 25 C	umhos/cm	8720	8730	0.115	20	

SAMPLE DUPLICATE: R3840953-4

Parameter	Units	L1536693-02 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance @ 25 C	umhos/cm	1500	1500	0.134	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 915-1
Pace Project No.: 60410341

Sample: SOIL PILE **Lab ID: 60410341006** Collected: 09/09/22 10:10 Received: 09/14/22 11:10 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 901.1	**6.152 ± 1.036 (0.358) C:NA T:NA**	pCi/g	10/10/22 08:33	13982-63-3	Ra
Radium-228	EPA 901.1	**6.416 ± 1.252 (0.339) C:NA T:NA**	pCi/g	10/10/22 08:33	15262-20-1	

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL - RADIOCHEMISTRY

Project: 915-1
Pace Project No.: 60410341

QC Batch: 534902
QC Batch Method: EPA 901.1
Analysis Method: EPA 901.1
Analysis Description: 901.1 Gamma Spec Ingrowth
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 60410341006

METHOD BLANK: 2595947
Matrix: Solid
Associated Lab Samples: 60410341006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.096 ± 0.068 (0.164) C:NA T:NA	pCi/g	10/04/22 08:20	Ra
Radium-228	0.000 ± 0.031 (0.338) C:NA T:NA	pCi/g	10/04/22 08:20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: 915-1
Pace Project No.: 60410341

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 adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

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.

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 60410341001
- [1] Wet Chemistry by Method 9045D - 7.58 at 21.6C
- [1] Wet Chemistry by Method 9050AMod - at 25C

Sample: 60410341002
- [1] Wet Chemistry by Method 9045D - 7.66 at 21.4C
- [1] Wet Chemistry by Method 9050AMod - at 25C

Sample: 60410341003
- [1] Wet Chemistry by Method 9045D - 8.66 at 21.4C
- [1] Wet Chemistry by Method 9050AMod - at 25C

Sample: 60410341004
- [1] Wet Chemistry by Method 9045D - 7.51 at 21.4C
- [1] Wet Chemistry by Method 9050AMod - at 25C

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: 915-1
Pace Project No.: 60410341

SAMPLE QUALIFIERS

Sample: 60410341005
[1] Wet Chemistry by Method 9045D - 9.35 at 21.4C
[1] Wet Chemistry by Method 9050AMod - at 25C
Sample: 60410341006
[1] Wet Chemistry by Method 9045D - 7.37 at 21.1C
[1] Wet Chemistry by Method 9050AMod - at 25C
Sample: R3840953-1
[1] Wet Chemistry by Method 9050AMod - at 25C
Sample: R3840953-2
[1] Wet Chemistry by Method 9050AMod - at 25C
Sample: R3840953-3
[1] Wet Chemistry by Method 9050AMod - at 25C
Sample: R3840953-4
[1] Wet Chemistry by Method 9050AMod - at 25C
Sample: R3841306-1
[1] Wet Chemistry by Method 9045D - 9.92 at 20.7C
Sample: R3841306-2
[1] Wet Chemistry by Method 9045D - 7.41 at 21.1C
Sample: R3841306-3
[1] Wet Chemistry by Method 9045D - 8.33 at 20.6C
Sample: L1536652-01
[1] Wet Chemistry by Method 9050AMod - at 25C
Sample: L1536693-02
[1] Wet Chemistry by Method 9050AMod - at 25C
Sample: L1539326-02
[1] Wet Chemistry by Method 9045D - 7.44 at 21C
Sample: L1539447-06
[1] Wet Chemistry by Method 9045D - 8.37 at 20.3C

ANALYTE QUALIFIERS

1e	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low. Confirmed by re-analyses.
H3	Sample was received or analysis requested beyond the recognized method holding time.
J	Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
Ra	The reported Ra-226 results were determined by hermetically sealing the dried, processed sample in an appropriate-sized can. Each sample was stored for a minimum of 21 days to ensure that equilibrium between Ra-226 and daughters Bi-214 and Pb-214 was achieved. Reported Ra-226 results were inferred from gamma peaks attributable to Bi-214 and Pb-214.

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 915-1
Pace Project No.: 60410341

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60410341001	**SL-1**	EPA 3546	807897	EPA 8015B	807988
60410341002	**SL-2**	EPA 3546	807897	EPA 8015B	807988
60410341003	**SL-3**	EPA 3546	807897	EPA 8015B	807988
60410341004	**SL-4**	EPA 3546	807897	EPA 8015B	807988
60410341005	**SL-5 '7'**	EPA 3546	807897	EPA 8015B	807988
60410341006	**SOIL PILE**	EPA 3546	807897	EPA 8015B	807988
60410341001	**SL-1**	EPA 5035A/5030B	808947	EPA 8015B	809156
60410341002	**SL-2**	EPA 5035A/5030B	808947	EPA 8015B	809156
60410341003	**SL-3**	EPA 5035A/5030B	808947	EPA 8015B	809156
60410341004	**SL-4**	EPA 5035A/5030B	808947	EPA 8015B	809156
60410341005	**SL-5 '7'**	EPA 5035A/5030B	808947	EPA 8015B	809156
60410341006	**SOIL PILE**	EPA 5035A/5030B	808947	EPA 8015B	809156
60410341001	**SL-1**	HWS Boron	1928100	6010B-NE493 Ch 2	1928100
60410341002	**SL-2**	HWS Boron	1928100	6010B-NE493 Ch 2	1928100
60410341003	**SL-3**	HWS Boron	1928100	6010B-NE493 Ch 2	1928100
60410341004	**SL-4**	HWS Boron	1928100	6010B-NE493 Ch 2	1928100
60410341005	**SL-5 '7'**	HWS Boron	1928101	6010B-NE493 Ch 2	1928101
60410341006	**SOIL PILE**	HWS Boron	1928101	6010B-NE493 Ch 2	1928101
60410341001	**SL-1**	EPA 3050	807994	EPA 6010	808083
60410341002	**SL-2**	EPA 3050	807994	EPA 6010	808083
60410341003	**SL-3**	EPA 3050	807994	EPA 6010	808083
60410341004	**SL-4**	EPA 3050	807994	EPA 6010	808083
60410341005	**SL-5 '7'**	EPA 3050	807994	EPA 6010	808083
60410341006	**SOIL PILE**	EPA 3050	807994	EPA 6010	808083
60410341001	**SL-1**	EPA 3050	807999	EPA 6020	808086
60410341002	**SL-2**	EPA 3050	807999	EPA 6020	808086
60410341003	**SL-3**	EPA 3050	807999	EPA 6020	808086
60410341004	**SL-4**	EPA 3050	807999	EPA 6020	808086
60410341005	**SL-5 '7'**	EPA 3050	807999	EPA 6020	808086
60410341006	**SOIL PILE**	EPA 3050	807999	EPA 6020	808086
60410341001	**SL-1**	EPA 3546	807896	EPA 8270 by SIM	808223
60410341002	**SL-2**	EPA 3546	807896	EPA 8270 by SIM	808223
60410341003	**SL-3**	EPA 3546	807896	EPA 8270 by SIM	808223
60410341004	**SL-4**	EPA 3546	807896	EPA 8270 by SIM	808223
60410341005	**SL-5 '7'**	EPA 3546	807896	EPA 8270 by SIM	808223
60410341006	**SOIL PILE**	EPA 3546	807896	EPA 8270 by SIM	808223
60410341001	**SL-1**	EPA 5035A/5030B	807907	EPA 8260C	807946
60410341002	**SL-2**	EPA 5035A/5030B	807907	EPA 8260C	807946
60410341003	**SL-3**	EPA 5035A/5030B	807907	EPA 8260C	807946
60410341004	**SL-4**	EPA 5035A/5030B	807907	EPA 8260C	807946
60410341005	**SL-5 '7'**	EPA 5035A/5030B	807907	EPA 8260C	807946
60410341006	**SOIL PILE**	EPA 5035A/5030B	807907	EPA 8260C	807946
60410341001	**SL-1**	ASTM D2974	807796		
60410341002	**SL-2**	ASTM D2974	807796		
60410341003	**SL-3**	ASTM D2974	807796		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 915-1
Pace Project No.: 60410341

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60410341004	**SL-4**	ASTM D2974	807796		
60410341005	**SL-5 '7'**	ASTM D2974	807796		
60410341006	**SOIL PILE**	ASTM D2974	807796		
60410341006	**SOIL PILE**	EPA 901.1	534902		
60410341001	**SL-1**	SM 2540 G	1928305	SM 2540G	1928305
60410341002	**SL-2**	SM 2540 G	1928305	SM 2540G	1928305
60410341003	**SL-3**	SM 2540 G	1928305	SM 2540G	1928305
60410341004	**SL-4**	SM 2540 G	1928305	SM 2540G	1928305
60410341005	**SL-5 '7'**	SM 2540 G	1928305	SM 2540G	1928305
60410341006	**SOIL PILE**	SM 2540 G	1928305	SM 2540G	1928305
60410341001	**SL-1**	3060A	1936617	EPA 7199	1936617
60410341002	**SL-2**	3060A	1936617	EPA 7199	1936617
60410341003	**SL-3**	3060A	1936617	EPA 7199	1936617
60410341004	**SL-4**	3060A	1936617	EPA 7199	1936617
60410341005	**SL-5 '7'**	3060A	1936617	EPA 7199	1936617
60410341006	**SOIL PILE**	3060A	1936617	EPA 7199	1936617
60410341001	**SL-1**	9045C/9045D	1932334	EPA 9045D	1932334
60410341002	**SL-2**	9045C/9045D	1932334	EPA 9045D	1932334
60410341003	**SL-3**	9045C/9045D	1932334	EPA 9045D	1932334
60410341004	**SL-4**	9045C/9045D	1932334	EPA 9045D	1932334
60410341005	**SL-5 '7'**	9045C/9045D	1932334	EPA 9045D	1932334
60410341006	**SOIL PILE**	9045C/9045D	1932334	EPA 9045D	1932334
60410341001	**SL-1**	9050A	1928750	EPA 9050	1928750
60410341002	**SL-2**	9050A	1928750	EPA 9050	1928750
60410341003	**SL-3**	9050A	1928750	EPA 9050	1928750
60410341004	**SL-4**	9050A	1928750	EPA 9050	1928750
60410341005	**SL-5 '7'**	9050A	1928750	EPA 9050	1928750
60410341006	**SOIL PILE**	9050A	1928750	EPA 9050	1928750
60410341001	**SL-1**	Calc	1932205	Calculated	1932205
60410341002	**SL-2**	Calc	1932205	Calculated	1932205
60410341003	**SL-3**	Calc	1932205	Calculated	1932205
60410341004	**SL-4**	Calc	1932205	Calculated	1932205
60410341005	**SL-5 '7'**	Calc	1932205	Calculated	1932205
60410341006	**SOIL PILE**	Calc	1932206	Calculated	1932206

WO# : 60410341

60410341

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009_Sample C	
	Revision: 2	Effective Date: 01/12/2022

Client Name: Mull Drilling

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☑ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☐ No ☑ Seals intact: Yes ☐ No ☑

Packing Material: Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Other ☐ Zip lock

Thermometer Used: T299 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): As-read 2.1 Corr. Factor 0.0 Corrected 2.1

Date and initials of person examining contents: 09-14-2022

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: SL	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:**	☐Yes ☐No ☑N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State: CO	☐Yes ☑No ☐N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

REVIEWED
By Trudy Gipson at 1:59 pm, 9/15/22

Qualtrax Document ID: 30468

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

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

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Section A — Required Client Information:

Company:	Mull Drilling Company
Address:	1700 N Waterfront Pkwy
	Wichita, KS 67206
Email:	jbeilman@mulldrilling.com
Phone:	316-364-6366 Fax:
Requested Due Date:	

Section B — Required Project Information:

Report To:	James Beilman
Copy To:	
Purchase Order #:	
Project Name:	915-1
Project #:	NEW SPILL (Brack Ranch)

Section C — Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	nolie.wood@pacelabs.com,
Pace Profile #:	15035, 2

Regulatory Agency:

State / Location: CO

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other (1LE)	Analyses Test Y/N	VOAS/SVOA PAH SIM	8015 DRO/GRO	6010/6020 metals	Paste EC, SAR, pH,	HW Boron, 7199 CrIV	Norm	Residual Chlorine (Y/N)	60410341
1	SL-1	SL	G	9/9/22		@	0910		4								✓		✓	✓	✓	✓	✓			
2	SL-2					@	0930		4								✓		✓	✓	✓	✓	✓			
3	SL-3					@	0940		4								✓		✓	✓	✓	✓	✓			
4	SL-4					@	0950		4								✓		✓	✓	✓	✓	✓			
5	SL-5 '7'					@	1000		4								✓		✓	✓	✓	✓	✓			
6	~~SL-6~~ Soil Pile					@	1010		5								✓		✓	✓	✓	✓	✓	✓		
7																										
8																										
9																										
10																										
11																										
12		✓	✓																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Send 7199 CrIV, Saturated Paste EC, SAR, pH, and Hot Water Boron to Pace National	James Beilman	9/14	1110		9/14	1110

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Kent Seaba

SIGNATURE of SAMPLER:

DATE Signed: 9/9/22

SAMPLE CONDITIONS			
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
2.1	Y	N	Y

Client: Mull Drilling

Site: 915-1

Profile # Line 2 & 3

Notes 1 WGKU = SiMet, SiWet (Tkg sa Boron), 1 BG1U - Line 3 (NORM)

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3C	BP3Z	WPDU	ZPLC	Other		
1	SC															2	2															
2																2	2															
3																2	2															
4																2	2															
5																2	2															
6									1							2	2															
7																																
8																																
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic

BP1C	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2C	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3C	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.

I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix

WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 6041 0341

E215

Internal Transfer Chain of Custody

Pace Analytical
www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: CO
Cert. Needed: ☐ Yes ☒ No

Workorder: 60410341 **Workorder Name:** 915-1 **Owner Received Date:** 9/14/2022 **Results Requested By:** 9/26/2022

Report To	Subcontract To
Heather Wilson Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone 1(913)563-1407	Pace National 12065 Lebanon Rd Mt. Juliet, TN 37122 Phone (615) 758-5858

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Requested Analysis: 7199 CrIV	Hot Water Boron	Paste EC, SAR, pH	LAB USE ONLY
1	SL-1	PS	9/9/2022 09:10	60410341001	Solid	1	X	X	X	-01
2	SL-2	PS	9/9/2022 09:30	60410341002	Solid	1	X	X	X	-02
3	SL-3	PS	9/9/2022 09:40	60410341003	Solid	1	X	X	X	-03
4	SL-4	PS	9/9/2022 09:50	60410341004	Solid	1	X	X	X	-04
5	SL-5 '7'	PS	9/9/2022 10:00	60410341005	Solid	1	X	X	X	-05
6	SOIL PILE	PS	9/9/2022 10:10	60410341006	Solid	1	X	X	X	-06

U536689

Transfers	Released By	Date/Time	Received By	Date/Time
1		9/15/1900		9-16-22 0900
2				
3				

Comments

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

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

5645 8496 6617

Sample Receipt Checklist

		If Applicable	
COC Seal Present/Intact:	Y N	VOA Zero Headspace:	Y N
COC Signed/Accurate:	Y N	Pres.Correct/Check:	Y N
Bottles arrive intact:	Y N	JAA7	
Correct bottles used:	Y N	3.8 + 0 = 3.8	
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

U1536689

Pace Analytical®
www.pacelabs.com

Ship To:
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122
Phone (615) 758-5858

INTER_LABORATORY WORK ORDER # 60410341
(To be completed by sending lab)

Sending Project No:	60410341
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	09/15/22
REQUESTED COMPLETION DATE:	**9/26/2022**

Sending Region	IR60-Kansas	Sending Project Mgr.	Heather Wilson
Receiving Region	IR850-Pace National	External Client	Mull Drilling Company
State of Sample Origin	CO	QC Deliverable	STD REPORT

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? Dry Weight ☐ IRWO Lab Need to run? Cert. Needed No

WORK REQUESTED

Method Description	Container Type	Quantity of containers	Preservative	Quantity of Samples	Unit Price	Amount
Hot Water Boron	WGKU	6	Unpreserved	6	$32.00	$192.00
7199 CrIV			Unpreserved	6	$91.00	$546.00
Paste EC, SAR, pH			Unpreserved	6	$85.00	$510.00
					TOTAL	$1,248.00

Special Requirements: Report D, QC Limits, MDLs (D),FR Only no EDD (0)

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. Sending Region (20%)
Metals	20	$738.00	$590.40	$147.60
Wet Chemistry	21	$510.00	$408.00	$102.00
* Custom Revenue Allocation	**TOTAL**	$1,248.00	$998.40	$249.60

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: ☐ Yes ☒ No

DISPOSITION of FORM

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

☐ Samples Pre-Logged into eCOC.

State Of Origin: CO
Cert. Needed: ☐ Yes ☒ No
Owner Received Date: 9/14/2022 Results Requested By: 9/26/2022

Workorder: 60410341 **Workorder Name:** 915-1

Report To	Subcontract To
Heather Wilson Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone 1(913)563-1407	Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3, & 4 Greensburg, PA 15601 Phone (724)850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Norm: Rad-226	Norm: Radium-228	LAB USE ONLY
1	SOIL PILE	PS	9/9/2022 10:10	60410341006	Solid	1	X	X	
2									
3									
4									
5									

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	9/15 1900	[signature]	9/16/22 9:50
2				
3				

Comments

Cooler Temperature on Receipt 5.4 °C | Custody Seal Y or (N) | Received on Ice (Y) or N | Samples Intact (Y) or N

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

WO# : 30522674

30522674

Pittsburgh Lab Sample Condition Upon Receipt

PaceAnalytical

Client Name: Pace Kansas Project # _____

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Label PS
LIMS Login VP

Tracking #: 5767 1408 2817

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

Thermometer Used 17 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 5.6 °C Correction Factor: -.2 °C Final Temp: 5.4 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents: PS 9/16/22
Chain of Custody Present:	✓			1.	
Chain of Custody Filled Out:	✓			2.	
Chain of Custody Relinquished:	✓			3.	
Sampler Name & Signature on COC:		✓		4.	
Sample Labels match COC:	✓			5.	
-Includes date/time/ID Matrix: SL					
Samples Arrived within Hold Time:	✓			6.	
Short Hold Time Analysis (<72hr remaining):		✓		7.	
Rush Turn Around Time Requested:		✓		8.	
Sufficient Volume:	✓			9.	
Correct Containers Used:	✓			10.	
-Pace Containers Used:		✓			
Containers Intact:	✓			11.	
Orthophosphate field filtered			✓	12.	
Hex Cr Aqueous sample field filtered			✓	13.	
Organic Samples checked for dechlorination:			✓	14.	
Filtered volume received for Dissolved tests			✓	15.	
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix			✓	16.	
All containers meet method preservation requirements.	✓			Initial when completed PS	Date/time of preservation
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):			✓	17.	
Trip Blank Present:		✓		18.	
Trip Blank Custody Seals Present		✓			
Rad Samples Screened < 0.5 mrem/hr	✓			Initial when completed: PS	Date: 9/16/22 Survey Meter SN: 1563

WO#: 30522674
PM: CF1 Due Date: 10/14/22
CLIENT: PACE_60_LEKS

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.