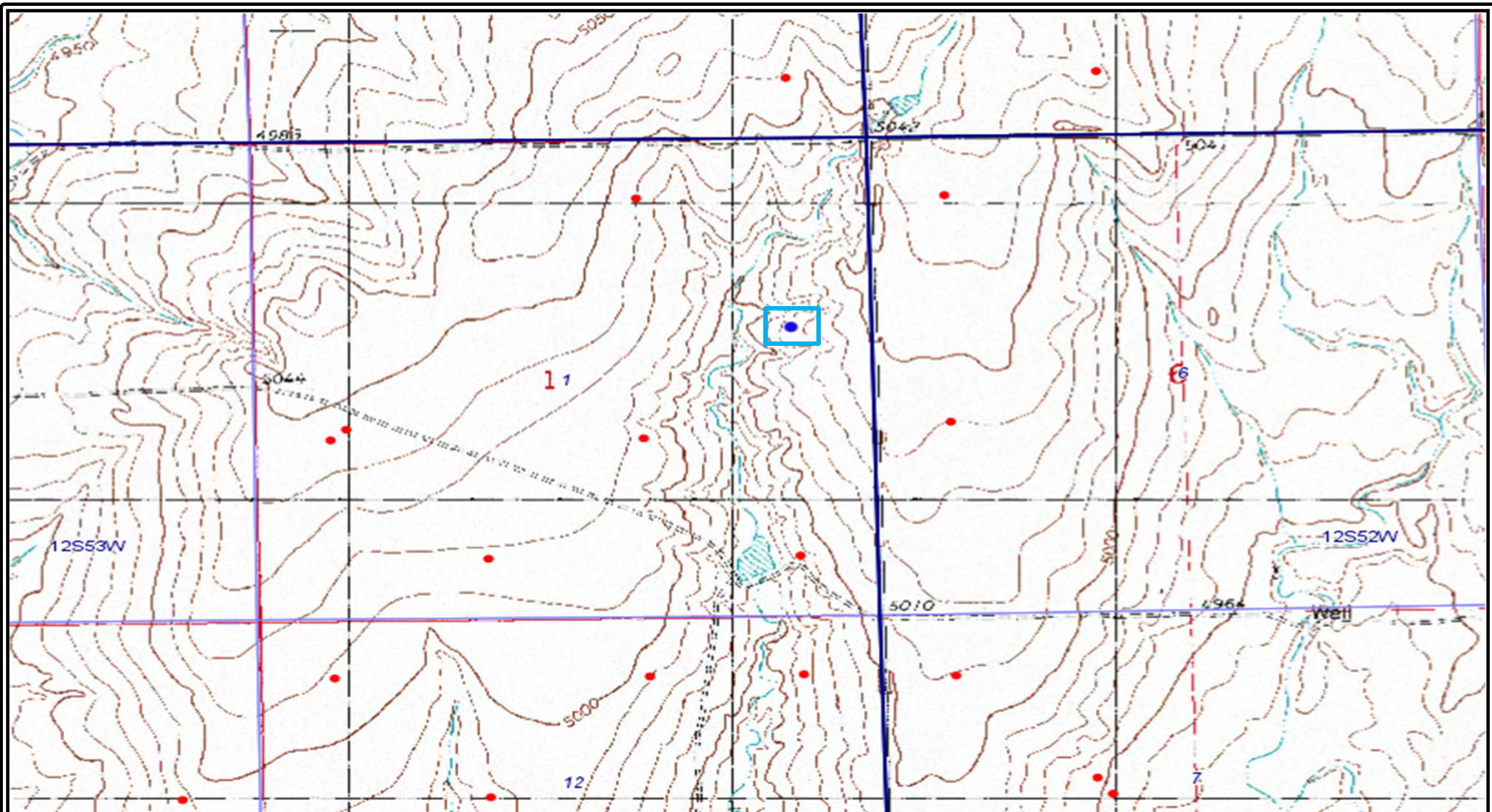




FIGURES

Figure 1: Topographic Site Location Map

Figure 2: Soil Sample Location Map



MULL DRILLING COMPANY, INC.
BRAUKMANN FARMS C TANK BATTERY
SPILL/RELEASE: 482882
SENE S1, T12S R53W
TOPOGRAPHIC MAP

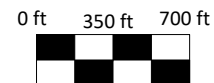
Legend



TB Location Boundary

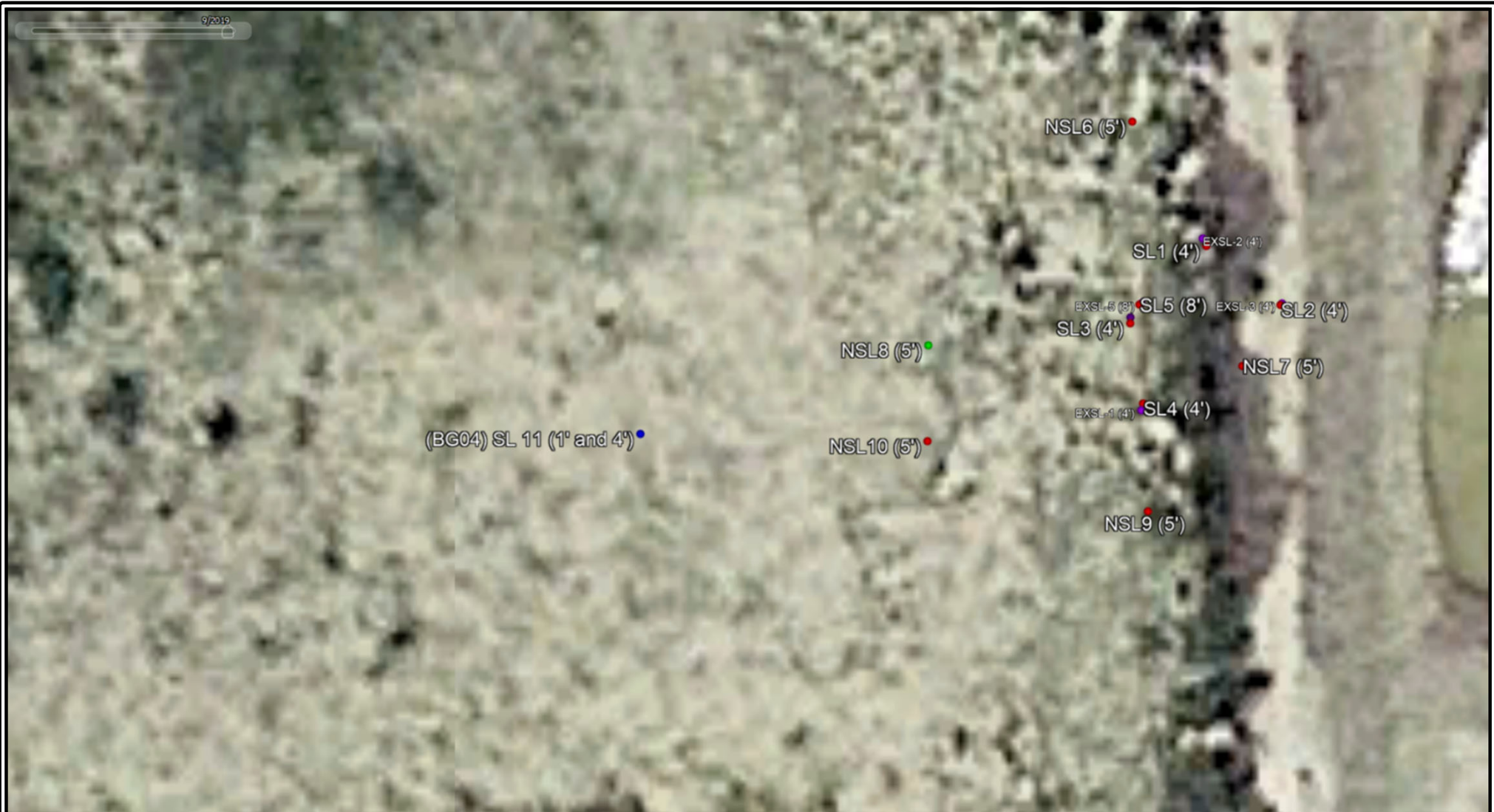


WH Location Boundary



Prepared By:
Ardor Environmental LLC

December 26, 2023



MULL DRILLING COMPANY, INC.
 BRAUKMANN FARMS C TANK BATTERY
 SPILL/RELEASE: 482882
 SENE S1, T12S R53W
 NEW SPILL SOIL SAMPLE LOCATIONS

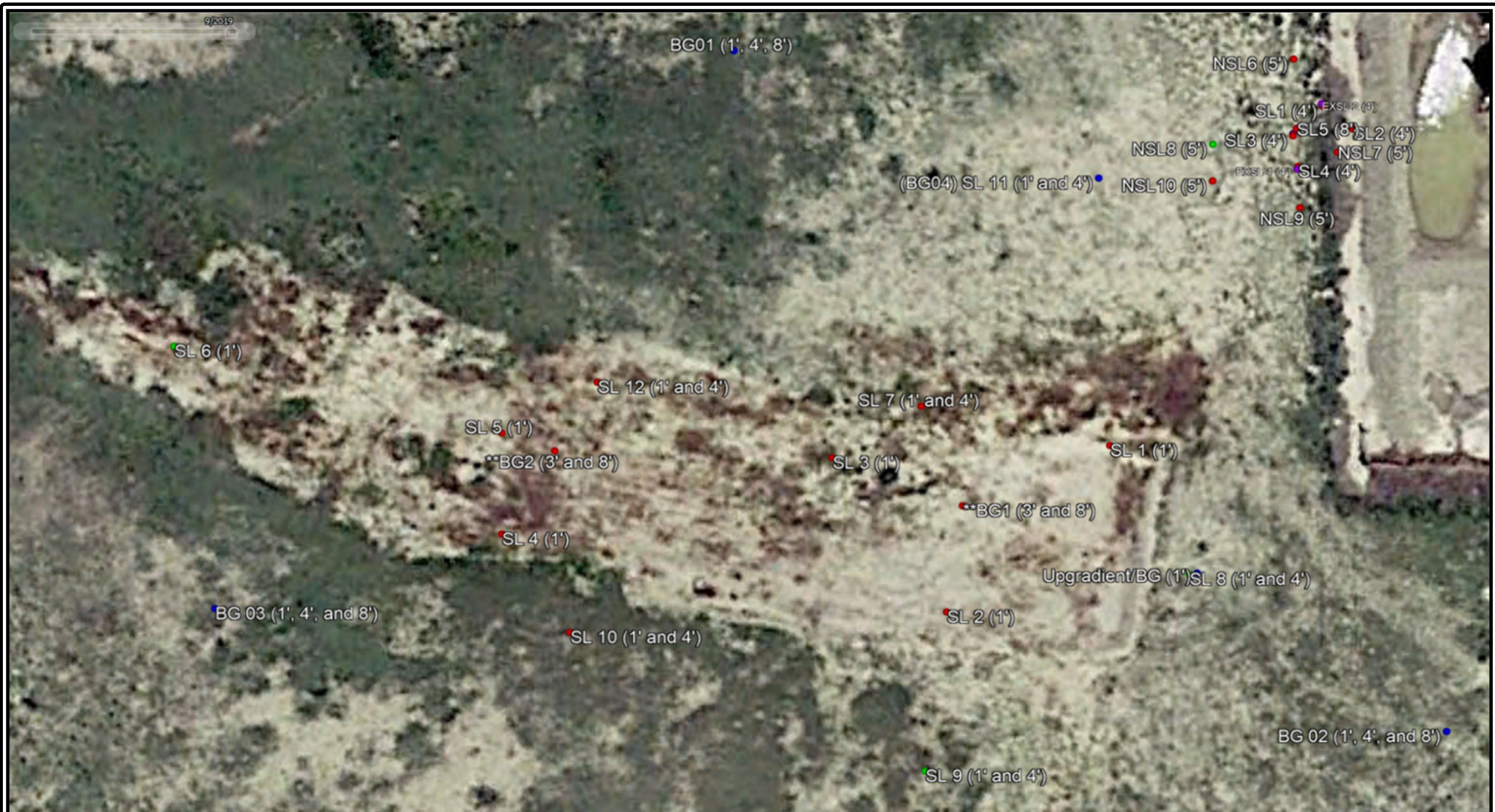
Legend

- Background Samples
- In-Situ Contaminated Samples
- In-Situ In Compliance Samples
- Excavation Samples



Prepared By:
 Ardor Environmental LLC

July 1, 2024



MULL DRILLING COMPANY, INC.
 BRAUKMANN FARMS C TANK BATTERY
 SPILL/RELEASE: 482882
 SENE S1, T12S R53W
 Old SPILL SOIL SAMPLE LOCATIONS

Legend

- Background Samples
- In-Situ Contaminated Samples
- In-Situ In Compliance Samples
- Excavation Samples



Prepared By:
 Ardor Environmental LLC

July 1, 2024



TABLES

Table 1: 2022 Analytical Tables

Table 2: 2023 Analytical Tables

[illegible]

Soils	Residential Soil Screening Level Concentrations (mg/kg)	Protection of Groundwater Soil Screening Level Concentrations (mg/kg)							BG01	BG01	BG02	BG02	BG03	BG03	EXSL-1	EXSL-2	EXSL-3	EXSL-4	EXSL-6	SL6	SL7	SL8	SL9	SL10
Organic Compounds in Soils			SL-1 4'	SL-2 4'	SL-3 4'	SL-4 4'	SL-5 7-8'	Soil Pile	BG01 1'	BG01 4'	BG02 1'	BG02 4'	BG03 1'	BG03 4'	EXSL-1 4'	EXSL-2 4'	EXSL-3 4'	EXSL-4 4'	EXSL-6 8'	SL6 5'	SL7 5'	SL8 5'	SL9 5'	SL10 5'
benzene	1.2	0.0026 (M)	ND	ND	ND	ND	ND	ND																
toluene	490	0.69 (M)	ND	ND	ND	ND	ND	ND																
ethylbenzene	5.8	0.78 (M)	ND	ND	ND	ND	ND	ND																
xylene (sum of o-, m- and p- isomers = total xylenes)	58	9.9 (M)	ND	ND	ND	ND	ND	ND																
1,2,4-trimethylbenzene	30	0.0081 (R)	ND	ND	ND	ND	ND	ND																
1,3,5-trimethylbenzene	27	0.0087 (R)	ND	ND	ND	ND	ND	ND																
acenaphthene	360	0.55 (R)	ND	ND	ND	ND	ND	ND																
anthracene	1800	5.8 (R)	ND	ND	ND	ND	ND	ND																
benzo(a)anthracene	1.1	0.11 (R)	ND	ND	ND	ND	ND	ND																
benzo(b)fluoranthene	1.1	0.3 (R)	ND	ND	ND	ND	ND	ND																
benzo(k)fluoranthene	11	2.9 (R)	ND	ND	ND	ND	ND	ND																
benzo(a)pyrene	0.11	0.24 (M)	ND	ND	ND	ND	ND	ND																
chrysene	110	9 (R)	ND	ND	ND	ND	ND	ND																
dibenz(a,h)anthracene	0.11	0.096 (R)	ND	ND	ND	ND	ND	ND																
fluoranthene	240	8.9 (R)	ND	ND	ND	ND	ND	ND																
fluorene	240	0.54 (R)	ND	0.0041J	ND	ND	ND	0.0050J																
indeno(1,2,3-cd)pyrene	1.1	0.98 (R)	ND	ND	ND	ND	ND	ND																
1-methylnaphthalene	18	0.006 (R)	0.057	0.042	0.011	ND	ND	0.04																
2-methylnaphthalene	24	0.019 (R)	0.043	0.047	0.0098	ND	ND	0.043																
naphthalene	2	0.0038 (R)	0.016	0.03	0.023	0.0043	ND	0.018																
pyrene	180	1.3 (R)	ND	ND	ND	ND	ND	ND																
Metals in Soils																								
arsenic*	0.68	0.29 (M)	8.4	8.4	8.8	7.7	7.4	9.3	7.14	6.72	7.27	8.37	5.99	5.33	7.43	7.58	7.57	6.89	8.31	7.08	7.65	6.93	8.6	6.09
barium	15000	82 (M)	172	192	424	179	324	195																
cadmium	71	0.38 (M)	0.54	0.45J	0.50J	0.51	0.5	0.47J																
chromium (VI)	0.3	0.00067 (R)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
copper	3100	46 (M)	16.4	16.7	16.8	15	15	14.4																
lead	400	14 (M)	13.3	13.7	13.5	12.5	12	12.4																
nickel	1500	26 (R)	15.5	16.5	16.4	14.4	15.4	13.5																
selenium	390	0.26 (M)	ND	0.55J	0.60J	0.54J	0.54J	0.51J																
silver	390	0.8 (R)	ND	ND	ND	ND	ND	ND																
zinc	23000	370 (R)	58	72.3	95.3	63.9	108	94.6																

The letter "J" following a protection of Groundwater soil screening level indicates the concentration is derived from a risk-based approach. The letter "M" following a protection of Groundwater soil screening level indicates the concentration is Quantifier "J" indicated analyte is present at an estimated concentration between the MDL and Reporting Limit. Quantifier "U" indicates analyzed but not detected above the MDL.

Values presented in **BOLD** contained concentrations exceeding ECMC Table 915-1 Residential Soil Screening Level limits, but are within Background results.

Values presented in **BOLD** contained concentrations exceeding ECMC Table 915-1 Residential Soil Screening Level limits, and Background results.

*Arsenic is naturally occurring. Arsenic Local Clean-Up Level is 9.625 mg/kg (1.25*7.7 mg/kg).

[illegible]

Braukmann Farms C Tank Battery
Facility ID: 482882
Remediation # 26220
MULL DRILLING COMPANY, INC.



ATTACHMENT A

Photo Log

Braukmann Farms C Tank Battery

Spill ID 482882

Remediation Project #26220

2nd Qtr Photolog

BG02 (1', 4', 8')

Attributes

SampleName

BG 02

Date

2024-03-28T00:00:00

TimewhenBaggedhhmmampm

10:40

TypeofSampleselectallthatapply

Background

DepthofSamplebgs

1' 4' 8'

PIDReading

0.1

AnyOdorfrom Sample

No

DescribeOdor

Any Stainingin Sample

No

Describe Staining

MiscellaneousComments

SamplePhoto



HolePhoto




Title/Sample ID:	BG 03 03/28/2024 Sample
-------------------------	-------------------------

X


BG03 (1', 4', 8')

Attributes	
SampleName	BG 03
Date	2024-03-28T00:00:00
TimewhenBaggedhhmmampm	11:05
TypeofSampleselectallthatapply	Background
DepthofSamplebgs	1' 4' 8'
PIDReading	0.1
AnyOdorfrom Sample	No
DescribeOdor	
Any Stainingin Sample	No
Describe Staining	
MiscellaneousComments	

SamplePhoto



HolePhoto




MiscellaneousPhotos

SL1 (4')


Attributes

SampleName	SL 1
Date	2024-04-04T00:00:00
TimewhenBaggedhhmmampm	10:30
TypeofSampleselectallthatapply	Excavation
LocationofSample	Side Wall
DepthofSamplebgs	4
PIDReading	0.2
MiscellaneousComments	
AnyOdorfromSample	No
DescribeOdor	
AnyStaininginSample	No
DescribeStaining	

SamplePhoto



HolePhoto




MiscellaneousPhotos

SL2 (4')


Attributes

SampleName	SL 2
Date	2024-04-04T00:00:00
TimewhenBaggedhhmmampm	10:35
TypeofSampleselectallthatapply	Excavation
LocationofSample	Side Wall
DepthofSamplebgs	4'
PIDReading	0.1
MiscellaneousComments	
AnyOdorfrom Sample	No
DescribeOdor	
AnyStainingin Sample	No
DescribeStaining	

SamplePhoto



HolePhoto



MiscellaneousPhotos

SL3 (4')

Attributes

SampleName

SL 3

Date

2024-04-04T00:00:00

TimewhenBaggedhhmmampm

10:40

TypeofSampleselectallthatapply

Excavation

LocationofSample

Side Wall

DepthofSamplebgs

4'

PIDReading

0.5

MiscellaneousComments

AnyOdorfromSample

No

DescribeOdor

AnyStaininginSample

No

DescribeStaining



SamplePhoto

HolePhoto

MiscellaneousPhotos

SL4 (4')

Attributes

SampleName	SL 4
Date	2024-04-04T00:00:00
TimewhenBaggedhhmmampm	10:45
TypeofSampleselectallthatapply	Excavation
Locationof Sample	Side Wall
Depthof Samplebgs	4'
PIDReading	0.1
MiscellaneousComments	
AnyOdorfrom Sample	No
DescribeOdor	
Any Stainingin Sample	No
Describe Staining	
SamplePhoto	
HolePhoto	
MiscellaneousPhotos	

×

SL5 (8')


Attributes	
SampleName	SL 5
Date	2024-04-04T00:00:00
TimewhenBaggedhhmmampm	10:50
TypeofSampleselectallthatapply	Excavation
LocationofSample	Floor
DepthofSamplebgs	8'
PIDReading	0.2
MiscellaneousComments	
AnyOdorfrom Sample	No
DescribeOdor	
Any Stainingin Sample	No
Describe Staining	
SamplePhoto	
HolePhoto	
MiscellaneousPhotos	

kml_1

Attributes

SampleName	EXSL-1A
Lat	39.031871
Long	103.275414
Date	2024-05-29T00:00:00
TimewhenBaggedhhmmampm	9:40
TypeofSampleselectallthatapply	Step Out
DepthofSamplebgs	5'
PIDReading	0.0


PhotoofPIDreadout




AnyOdorfrom Sample	No
DescribeOdor	
AnyStainingin Sample	No
DescribeStaining	

MiscellaneousComments

SamplePhoto



HolePhoto



kml_1

Attributes

SampleName	EXSL-1A
Lat	39.031871
Long	103.275414
Date	2024-05-29T00:00:00
TimewhenBaggedhhmmampm	9:40
TypeofSampleselectallthatapply	Step Out
DepthofSamplebgs	5'
PIDReading	0.0


PhotoofPIDreadout

AnyOdorfrom Sample	No
DescribeOdor	
AnyStainingin Sample	No
DescribeStaining	

MiscellaneousComments

SamplePhoto

HolePhoto

Title/Sample ID:	SL7 @ 5' 5/29/2024 (Note Sample was incorrectly named EXSL-2A)																		
<div><div><div>kml_2</div><div><table><thead><tr><th colspan="2">Attributes</th></tr></thead><tbody><tr><td>SampleName</td><td>EXSL-2A</td></tr><tr><td>Lat</td><td>39.031824</td></tr><tr><td>Long</td><td>103.275376</td></tr><tr><td>Date</td><td>2024-05-29T00:00:00</td></tr><tr><td>TimewhenBaggedhhmmampm</td><td>9:45</td></tr><tr><td>TypeofSampleselectallthatapply</td><td>Step Out</td></tr><tr><td>DepthofSamplebgs</td><td>5'</td></tr><tr><td>PIDReading</td><td>0.0</td></tr></tbody></table></div><div><div>PhotoofPIDreadout</div><div></div></div><div><div>AnyOdorfrom Sample</div><div>No</div><div>DescribeOdor</div><div></div><div>Any Stainingin Sample</div><div>No</div><div>Describe Staining</div><div></div></div><div><div>MiscellaneousComments</div><div><div>SamplePhoto</div><div></div><div>HolePhoto</div><div></div></div></div></div></div>		Attributes		SampleName	EXSL-2A	Lat	39.031824	Long	103.275376	Date	2024-05-29T00:00:00	TimewhenBaggedhhmmampm	9:45	TypeofSampleselectallthatapply	Step Out	DepthofSamplebgs	5'	PIDReading	0.0
Attributes																			
SampleName	EXSL-2A																		
Lat	39.031824																		
Long	103.275376																		
Date	2024-05-29T00:00:00																		
TimewhenBaggedhhmmampm	9:45																		
TypeofSampleselectallthatapply	Step Out																		
DepthofSamplebgs	5'																		
PIDReading	0.0																		

kml_5

Attributes

SampleName	EXSL-5A
Lat	39.031828
Long	103.275467
Date	2024-05-29T00:00:00
TimewhenBaggedhmmampm	9:30
TypeofSampleselectallthatapply	Stept Out
DepthofSamplebgs	5'
PIDReading	0.0

PhotoofPIDreadout



AnyOdorfrom Sample	No
DescribeOdor	
AnyStainingin Sample	No
Describe Staining	

MiscellaneousComments

SamplePhoto



HolePhoto



kml_5

Attributes

SampleName	EXSL-5A
Lat	39.031828
Long	103.275467
Date	2024-05-29T00:00:00
TimewhenBaggedhmmampm	9:30
TypeofSampleselectallthatapply	Stept Out
DepthofSamplebgs	5'
PIDReading	0.0

PhotoofPIDreadout

AnyOdorfrom Sample	No
DescribeOdor	
AnyStainingin Sample	No
Describe Staining	

MiscellaneousComments

SamplePhoto


HolePhoto

kml_4

Attributes

SampleName	EXSL-4A
Lat	39.031759
Long	103.275408
Date	2024-05-29T00:00:00
TimewhenBaggedhhmmampm	9:20
TypeofSampleselectallthatapply	Step Out
DepthofSamplebgs	5'
PIDReading	0.2

PhotoofPIDreadout




AnyOdorfrom Sample	No
DescribeOdor	
AnyStainingin Sample	No
DescribeStaining	


MiscellaneousComments

PID was 0.2 couldn't get picture fast enough

SamplePhoto



HolePhoto



Title/Sample ID: SL10 @ 5' 5/29/2024 (Note Sample was incorrectly named EXSL-3A)

kml_3

Attributes

SampleName	EXSL-3A
Lat	39.031779
Long	103.275484
Date	2024-05-29T00:00:00
TimewhenBaggedhhmmampm	9:25
Typeof Sampleselectallthatapply	Step Out
Depthof Samplebgs	5'
PIDReading	0.0

PhotoofPIDreadout

AnyOdorfrom Sample

No

DescribeOdor

AnyStainingin Sample

No

Describe Staining

MiscellaneousComments

SamplePhoto

HolePhoto

Braukmann Farms C Tank Battery
Facility ID: 482882
Remediation # 26220
MULL DRILLING COMPANY, INC.



ATTACHMENT B

Laboratory Analytical Reports

October 10, 2022

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

RE: Project: 915-1
Pace Project No.: 60410331

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

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

Sincerely,



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

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 915-1
Pace Project No.: 60410331

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
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 #: LA000356
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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 915-1
Pace Project No.: 60410331

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60410331001	SL-1	Solid	09/09/22 10:20	09/14/22 11:10
60410331002	SL-2	Solid	09/09/22 10:30	09/14/22 11:10
60410331003	SL-3	Solid	09/09/22 10:40	09/14/22 11:10
60410331004	SL-4	Solid	09/09/22 10:50	09/14/22 11:10
60410331005	SL-5	Solid	09/09/22 11:00	09/14/22 11:10
60410331006	UPGRADIENT	Solid	09/09/22 11:20	09/14/22 11:10
60410331007	SL-6	Solid	09/09/22 11:10	09/14/22 11:10

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SAMPLE ANALYTE COUNT

Project: 915-1

Pace Project No.: 60410331

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60410331001	SL-1	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
		EPA 8015B	WFG	4	PASI-K
		EPA 8015B	BA	2	PASI-K
60410331002	SL-2	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
		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
60410331003	SL-3	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

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SAMPLE ANALYTE COUNT

Project: 915-1

Pace Project No.: 60410331

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60410331004	SL-4	EPA 9050	NTG	1	PAN
		Calculated	CCE	1	PAN
		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
60410331005	SL-5	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
		6010B-NE493 Ch 2	CCE	1	PAN
		EPA 6010	MRV	8	PASI-K
		EPA 6020	JGP	1	PASI-K
60410331006	UPGRADIENT	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	KMG	1	PAN

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 915-1
Pace Project No.: 60410331

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60410331007	SL-6	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

PAN = Pace National - Mt. Juliet

PASI-K = Pace Analytical Services - Kansas City

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-1 **Lab ID: 60410331001** Collected: 09/09/22 10:20 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	21.1	4.7	1	09/15/22 21:00	09/16/22 08:37		
TPH-DRO (C10-C28)	ND	mg/kg	10.6	4.7	1	09/15/22 21:00	09/16/22 08:37		
Surrogates									
n-Tetracosane (S)	60	%	31-152		1	09/15/22 21:00	09/16/22 08:37	646-31-1	
p-Terphenyl (S)	62	%	46-130		1	09/15/22 21:00	09/16/22 08:37	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	9.9	1.2	1	09/22/22 16:01	09/23/22 00:16		
Surrogates									
4-Bromofluorobenzene (S)	99	%	66-130		1	09/22/22 16:01	09/23/22 00:16	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	462	ug/L	200	16.7	1	09/20/22 10:47	09/30/22 02:28	7440-42-8H	
6010 MET ICP Red. Interference									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Barium	214	mg/kg	0.41	0.082	1	09/16/22 08:12	09/20/22 14:00	7440-39-3	M1
Cadmium	0.49	mg/kg	0.41	0.060	1	09/16/22 08:12	09/20/22 14:00	7440-43-9	
Copper	15.9	mg/kg	1.6	0.34	1	09/16/22 08:12	09/20/22 14:00	7440-50-8	
Lead	12.2	mg/kg	0.82	0.24	1	09/16/22 08:12	09/20/22 14:00	7439-92-1	
Nickel	14.2	mg/kg	0.41	0.21	1	09/16/22 08:12	09/20/22 14:00	7440-02-0	
Selenium	0.56J	mg/kg	1.2	0.25	1	09/16/22 08:12	09/20/22 14:00	7782-49-2	M1
Silver	ND	mg/kg	0.58	0.089	1	09/16/22 08:12	09/20/22 14:00	7440-22-4	
Zinc	50.7	mg/kg	8.2	0.17	1	09/16/22 08:12	09/20/22 14:00	7440-66-6	
6020 MET ICPMS									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Arsenic	8.1	mg/kg	0.91	0.21	10	09/16/22 08:25	09/22/22 16:22	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	0.0035	0.0019	1	09/15/22 20:56	09/19/22 16:56	83-32-9	
Anthracene	ND	mg/kg	0.0035	0.0018	1	09/15/22 20:56	09/19/22 16:56	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 16:56	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0035	0.0014	1	09/15/22 20:56	09/19/22 16:56	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 16:56	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0035	0.0020	1	09/15/22 20:56	09/19/22 16:56	207-08-9	
Chrysene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 16:56	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 16:56	53-70-3	
Fluoranthene	ND	mg/kg	0.0035	0.0024	1	09/15/22 20:56	09/19/22 16:56	206-44-0	
Fluorene	ND	mg/kg	0.0035	0.0023	1	09/15/22 20:56	09/19/22 16:56	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0035	0.0018	1	09/15/22 20:56	09/19/22 16:56	193-39-5	

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-1 **Lab ID: 60410331001** Collected: 09/09/22 10:20 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	0.0035	0.0017	1	09/15/22 20:56	09/19/22 16:56	90-12-0	L2
2-Methylnaphthalene	ND	mg/kg	0.0035	0.0021	1	09/15/22 20:56	09/19/22 16:56	91-57-6	
Naphthalene	ND	mg/kg	0.0035	0.0018	1	09/15/22 20:56	09/19/22 16:56	91-20-3	
Pyrene	ND	mg/kg	0.0035	0.0023	1	09/15/22 20:56	09/19/22 16:56	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	66	%	40-120		1	09/15/22 20:56	09/19/22 16:56	321-60-8	
Terphenyl-d14 (S)	76	%	45-130		1	09/15/22 20:56	09/19/22 16:56	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	0.0055	0.00050	1	09/15/22 14:48	09/16/22 10:28	71-43-2	
Ethylbenzene	ND	mg/kg	0.0055	0.00096	1	09/15/22 14:48	09/16/22 10:28	100-41-4	
Toluene	ND	mg/kg	0.022	0.0049	1	09/15/22 14:48	09/16/22 10:28	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0055	0.00076	1	09/15/22 14:48	09/16/22 10:28	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0055	0.00048	1	09/15/22 14:48	09/16/22 10:28	108-67-8	
Xylene (Total)	ND	mg/kg	0.017	0.0041	1	09/15/22 14:48	09/16/22 10:28	1330-20-7	
Surrogates									
Toluene-d8 (S)	111	%	80-120		1	09/15/22 14:48	09/16/22 10:28	2037-26-5	
4-Bromofluorobenzene (S)	103	%	83-119		1	09/15/22 14:48	09/16/22 10:28	460-00-4	
1,2-Dichlorobenzene-d4 (S)	101	%	80-120		1	09/15/22 14:48	09/16/22 10:28	2199-69-1	
Percent Moisture									
Analytical Method: ASTM D2974									
Pace Analytical Services - Kansas City									
Percent Moisture	5.3	%	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	94.0	%			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	1.06	0.271	1	10/03/22 18:00	10/05/22 02:03	18540-29-9	
Wet Chemistry 9045D									
Analytical Method: EPA 9045D Preparation Method: 9045C/9045D									
Pace National - Mt. Juliet									
pH	7.86	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	5710	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	12.1				1	09/29/22 22:15	09/29/22 22:15	SAR	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-2 **Lab ID: 60410331002** Collected: 09/09/22 10:30 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)	ND	mg/kg	19.8	4.4	1	09/15/22 21:00	09/16/22 08:53		
TPH-DRO (C10-C28)	ND	mg/kg	9.9	4.4	1	09/15/22 21:00	09/16/22 08:53		
Surrogates									
n-Tetracosane (S)	62	%	31-152		1	09/15/22 21:00	09/16/22 08:53	646-31-1	
p-Terphenyl (S)	67	%	46-130		1	09/15/22 21:00	09/16/22 08:53	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	8.9	1.1	1	09/22/22 16:01	09/23/22 00:32		
Surrogates									
4-Bromofluorobenzene (S)	99	%	66-130		1	09/22/22 16:01	09/23/22 00:32	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	435	ug/L	200	16.7	1	09/20/22 10:47	09/30/22 02:31	7440-42-8H	
6010 MET ICP Red. Interference									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Barium	156	mg/kg	0.43	0.086	1	09/16/22 08:12	09/20/22 14:06	7440-39-3	
Cadmium	0.47	mg/kg	0.43	0.063	1	09/16/22 08:12	09/20/22 14:06	7440-43-9	
Copper	15.3	mg/kg	1.7	0.36	1	09/16/22 08:12	09/20/22 14:06	7440-50-8	
Lead	16.0	mg/kg	0.87	0.25	1	09/16/22 08:12	09/20/22 14:06	7439-92-1	
Nickel	16.1	mg/kg	0.43	0.22	1	09/16/22 08:12	09/20/22 14:06	7440-02-0	
Selenium	0.58J	mg/kg	1.3	0.27	1	09/16/22 08:12	09/20/22 14:06	7782-49-2	
Silver	ND	mg/kg	0.61	0.094	1	09/16/22 08:12	09/20/22 14:06	7440-22-4	
Zinc	56.7	mg/kg	8.7	0.18	1	09/16/22 08:12	09/20/22 14:06	7440-66-6	
6020 MET ICPMS									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Arsenic	8.7	mg/kg	1.0	0.23	10	09/16/22 08:25	09/22/22 16:34	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	0.0033	0.0018	1	09/15/22 20:56	09/19/22 17:50	83-32-9	
Anthracene	ND	mg/kg	0.0033	0.0017	1	09/15/22 20:56	09/19/22 17:50	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0033	0.0018	1	09/15/22 20:56	09/19/22 17:50	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0033	0.0014	1	09/15/22 20:56	09/19/22 17:50	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0033	0.0018	1	09/15/22 20:56	09/19/22 17:50	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0033	0.0019	1	09/15/22 20:56	09/19/22 17:50	207-08-9	
Chrysene	ND	mg/kg	0.0033	0.0018	1	09/15/22 20:56	09/19/22 17:50	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0033	0.0018	1	09/15/22 20:56	09/19/22 17:50	53-70-3	
Fluoranthene	ND	mg/kg	0.0033	0.0023	1	09/15/22 20:56	09/19/22 17:50	206-44-0	
Fluorene	ND	mg/kg	0.0033	0.0022	1	09/15/22 20:56	09/19/22 17:50	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0033	0.0017	1	09/15/22 20:56	09/19/22 17:50	193-39-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-2 **Lab ID: 60410331002** Collected: 09/09/22 10:30 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	ND	mg/kg	0.0033	0.0016	1	09/15/22 20:56	09/19/22 17:50	90-12-0	L2
2-Methylnaphthalene	ND	mg/kg	0.0033	0.0021	1	09/15/22 20:56	09/19/22 17:50	91-57-6	
Naphthalene	ND	mg/kg	0.0033	0.0017	1	09/15/22 20:56	09/19/22 17:50	91-20-3	
Pyrene	ND	mg/kg	0.0033	0.0022	1	09/15/22 20:56	09/19/22 17:50	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	75	%	40-120		1	09/15/22 20:56	09/19/22 17:50	321-60-8	
Terphenyl-d14 (S)	81	%	45-130		1	09/15/22 20:56	09/19/22 17:50	1718-51-0	
8260C MSV 5035A Low Level									
Analytical Method: EPA 8260C Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Kansas City									
Benzene	0.0023J	mg/kg	0.0050	0.00046	1	09/15/22 14:48	09/16/22 10:47	71-43-2	
Ethylbenzene	ND	mg/kg	0.0050	0.00087	1	09/15/22 14:48	09/16/22 10:47	100-41-4	
Toluene	ND	mg/kg	0.020	0.0045	1	09/15/22 14:48	09/16/22 10:47	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	0.00069	1	09/15/22 14:48	09/16/22 10:47	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	0.00044	1	09/15/22 14:48	09/16/22 10:47	108-67-8	
Xylene (Total)	ND	mg/kg	0.015	0.0037	1	09/15/22 14:48	09/16/22 10:47	1330-20-7	
Surrogates									
Toluene-d8 (S)	108	%	80-120		1	09/15/22 14:48	09/16/22 10:47	2037-26-5	
4-Bromofluorobenzene (S)	102	%	83-119		1	09/15/22 14:48	09/16/22 10:47	460-00-4	
1,2-Dichlorobenzene-d4 (S)	100	%	80-120		1	09/15/22 14:48	09/16/22 10:47	2199-69-1	
Percent Moisture									
Analytical Method: ASTM D2974									
Pace Analytical Services - Kansas City									
Percent Moisture	0.77	%	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	97.5	%			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	1.03	0.261	1	10/03/22 18:00	10/05/22 02:08	18540-29-9	
Wet Chemistry 9045D									
Analytical Method: EPA 9045D Preparation Method: 9045C/9045D									
Pace National - Mt. Juliet									
pH	8.58	Std. Units		0.10	1	09/27/22 15:00	09/27/22 16:00		H3
Wet Chemistry 9050AMod									
Analytical Method: EPA 9050 Preparation Method: 9050A									
Pace National - Mt. Juliet									
Specific Conductance @ 25 C	1500	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	26.1				1	09/29/22 22:18	09/29/22 22:18	SAR	

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-3 **Lab ID: 60410331003** Collected: 09/09/22 10:40 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	21.4	4.8	1	09/15/22 21:00	09/16/22 09:02		
TPH-DRO (C10-C28)	ND	mg/kg	10.7	4.8	1	09/15/22 21:00	09/16/22 09:02		
Surrogates									
n-Tetracosane (S)	58	%	31-152		1	09/15/22 21:00	09/16/22 09:02	646-31-1	
p-Terphenyl (S)	63	%	46-130		1	09/15/22 21:00	09/16/22 09:02	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	10.8	1.3	1	09/22/22 16:01	09/23/22 00:47		
Surrogates									
4-Bromofluorobenzene (S)	99	%	66-130		1	09/22/22 16:01	09/23/22 00:47	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	1980	ug/L	200	16.7	1	09/20/22 10:47	09/30/22 02:34	7440-42-8H	
6010 MET ICP Red. Interference									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Barium	193	mg/kg	0.51	0.10	1	09/16/22 08:12	09/20/22 14:08	7440-39-3	
Cadmium	0.42J	mg/kg	0.51	0.073	1	09/16/22 08:12	09/20/22 14:08	7440-43-9	
Copper	11.3	mg/kg	2.0	0.42	1	09/16/22 08:12	09/20/22 14:08	7440-50-8	
Lead	10.5	mg/kg	1.0	0.29	1	09/16/22 08:12	09/20/22 14:08	7439-92-1	
Nickel	11.4	mg/kg	0.51	0.25	1	09/16/22 08:12	09/20/22 14:08	7440-02-0	
Selenium	0.51J	mg/kg	1.5	0.31	1	09/16/22 08:12	09/20/22 14:08	7782-49-2	
Silver	ND	mg/kg	0.71	0.11	1	09/16/22 08:12	09/20/22 14:08	7440-22-4	
Zinc	44.3	mg/kg	10.1	0.21	1	09/16/22 08:12	09/20/22 14:08	7440-66-6	
6020 MET ICPMS									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Arsenic	5.7	mg/kg	0.87	0.20	10	09/16/22 08:25	09/22/22 16:37	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	0.0035	0.0019	1	09/15/22 20:56	09/19/22 18:08	83-32-9	
Anthracene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 18:08	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0035	0.0020	1	09/15/22 20:56	09/19/22 18:08	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0035	0.0015	1	09/15/22 20:56	09/19/22 18:08	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0035	0.0020	1	09/15/22 20:56	09/19/22 18:08	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0035	0.0020	1	09/15/22 20:56	09/19/22 18:08	207-08-9	
Chrysene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 18:08	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 18:08	53-70-3	
Fluoranthene	ND	mg/kg	0.0035	0.0025	1	09/15/22 20:56	09/19/22 18:08	206-44-0	
Fluorene	ND	mg/kg	0.0035	0.0023	1	09/15/22 20:56	09/19/22 18:08	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 18:08	193-39-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-3 **Lab ID: 60410331003** Collected: 09/09/22 10:40 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	ND	mg/kg	0.0035	0.0017	1	09/15/22 20:56	09/19/22 18:08	90-12-0	L2
2-Methylnaphthalene	ND	mg/kg	0.0035	0.0022	1	09/15/22 20:56	09/19/22 18:08	91-57-6	
Naphthalene	ND	mg/kg	0.0035	0.0018	1	09/15/22 20:56	09/19/22 18:08	91-20-3	
Pyrene	ND	mg/kg	0.0035	0.0023	1	09/15/22 20:56	09/19/22 18:08	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	71	%	40-120		1	09/15/22 20:56	09/19/22 18:08	321-60-8	
Terphenyl-d14 (S)	79	%	45-130		1	09/15/22 20:56	09/19/22 18:08	1718-51-0	
8260C MSV 5035A Low Level									
Analytical Method: EPA 8260C Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Kansas City									
Benzene	0.0026J	mg/kg	0.0057	0.00052	1	09/15/22 14:48	09/16/22 11:07	71-43-2	
Ethylbenzene	ND	mg/kg	0.0057	0.00098	1	09/15/22 14:48	09/16/22 11:07	100-41-4	
Toluene	ND	mg/kg	0.023	0.0051	1	09/15/22 14:48	09/16/22 11:07	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0057	0.00078	1	09/15/22 14:48	09/16/22 11:07	95-63-6	
1,3,5-Trimethylbenzene	0.00057J	mg/kg	0.0057	0.00049	1	09/15/22 14:48	09/16/22 11:07	108-67-8	
Xylene (Total)	ND	mg/kg	0.017	0.0042	1	09/15/22 14:48	09/16/22 11:07	1330-20-7	
Surrogates									
Toluene-d8 (S)	109	%	80-120		1	09/15/22 14:48	09/16/22 11:07	2037-26-5	
4-Bromofluorobenzene (S)	103	%	83-119		1	09/15/22 14:48	09/16/22 11:07	460-00-4	
1,2-Dichlorobenzene-d4 (S)	100	%	80-120		1	09/15/22 14:48	09/16/22 11:07	2199-69-1	
Percent Moisture									
Analytical Method: ASTM D2974									
Pace Analytical Services - Kansas City									
Percent Moisture	6.8	%	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	93.6	%			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	1.07	0.272	1	10/03/22 18:00	10/05/22 02:19	18540-29-9	
Wet Chemistry 9045D									
Analytical Method: EPA 9045D Preparation Method: 9045C/9045D									
Pace National - Mt. Juliet									
pH	7.95	Std. Units		0.10	1	09/27/22 15:00	09/27/22 16:00		H3
Wet Chemistry 9050AMod									
Analytical Method: EPA 9050 Preparation Method: 9050A									
Pace National - Mt. Juliet									
Specific Conductance @ 25 C	8910	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	27.4				1	09/29/22 22:20	09/29/22 22:20	SAR	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-4 **Lab ID: 60410331004** Collected: 09/09/22 10:50 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	21.1	4.7	1	09/15/22 21:00	09/16/22 09:10		
TPH-DRO (C10-C28)	ND	mg/kg	10.6	4.7	1	09/15/22 21:00	09/16/22 09:10		
Surrogates									
n-Tetracosane (S)	66	%	31-152		1	09/15/22 21:00	09/16/22 09:10	646-31-1	
p-Terphenyl (S)	71	%	46-130		1	09/15/22 21:00	09/16/22 09:10	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	11.1	1.4	1	09/22/22 16:01	09/23/22 01:03		
Surrogates									
4-Bromofluorobenzene (S)	100	%	66-130		1	09/22/22 16:01	09/23/22 01:03	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	1260	ug/L	200	16.7	1	09/20/22 10:47	09/30/22 02:37	7440-42-8H	
6010 MET ICP Red. Interference									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Barium	224	mg/kg	0.38	0.075	1	09/16/22 08:12	09/20/22 14:10	7440-39-3	
Cadmium	0.47	mg/kg	0.38	0.055	1	09/16/22 08:12	09/20/22 14:10	7440-43-9	
Copper	14.6	mg/kg	1.5	0.31	1	09/16/22 08:12	09/20/22 14:10	7440-50-8	
Lead	11.6	mg/kg	0.76	0.22	1	09/16/22 08:12	09/20/22 14:10	7439-92-1	
Nickel	13.4	mg/kg	0.38	0.19	1	09/16/22 08:12	09/20/22 14:10	7440-02-0	
Selenium	0.46J	mg/kg	1.1	0.23	1	09/16/22 08:12	09/20/22 14:10	7782-49-2	
Silver	ND	mg/kg	0.53	0.082	1	09/16/22 08:12	09/20/22 14:10	7440-22-4	
Zinc	46.5	mg/kg	7.6	0.16	1	09/16/22 08:12	09/20/22 14:10	7440-66-6	
6020 MET ICPMS									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Arsenic	8.9	mg/kg	1.0	0.23	10	09/16/22 08:25	09/22/22 16:40	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	0.0035	0.0019	1	09/15/22 20:56	09/19/22 18:27	83-32-9	
Anthracene	ND	mg/kg	0.0035	0.0018	1	09/15/22 20:56	09/19/22 18:27	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 18:27	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0035	0.0014	1	09/15/22 20:56	09/19/22 18:27	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 18:27	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0035	0.0020	1	09/15/22 20:56	09/19/22 18:27	207-08-9	
Chrysene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 18:27	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0035	0.0019	1	09/15/22 20:56	09/19/22 18:27	53-70-3	
Fluoranthene	ND	mg/kg	0.0035	0.0024	1	09/15/22 20:56	09/19/22 18:27	206-44-0	
Fluorene	ND	mg/kg	0.0035	0.0023	1	09/15/22 20:56	09/19/22 18:27	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0035	0.0018	1	09/15/22 20:56	09/19/22 18:27	193-39-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-4 **Lab ID: 60410331004** Collected: 09/09/22 10:50 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	0.0035	0.0017	1	09/15/22 20:56	09/19/22 18:27	90-12-0	L2
2-Methylnaphthalene	ND	mg/kg	0.0035	0.0021	1	09/15/22 20:56	09/19/22 18:27	91-57-6	
Naphthalene	ND	mg/kg	0.0035	0.0018	1	09/15/22 20:56	09/19/22 18:27	91-20-3	
Pyrene	ND	mg/kg	0.0035	0.0023	1	09/15/22 20:56	09/19/22 18:27	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	68	%	40-120		1	09/15/22 20:56	09/19/22 18:27	321-60-8	
Terphenyl-d14 (S)	74	%	45-130		1	09/15/22 20:56	09/19/22 18:27	1718-51-0	
8260C MSV 5035A Low Level									
Analytical Method: EPA 8260C Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Kansas City									
Benzene	0.0015J	mg/kg	0.0056	0.00051	1	09/15/22 14:48	09/16/22 11:27	71-43-2	
Ethylbenzene	ND	mg/kg	0.0056	0.00097	1	09/15/22 14:48	09/16/22 11:27	100-41-4	
Toluene	ND	mg/kg	0.022	0.0050	1	09/15/22 14:48	09/16/22 11:27	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0056	0.00077	1	09/15/22 14:48	09/16/22 11:27	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0056	0.00049	1	09/15/22 14:48	09/16/22 11:27	108-67-8	
Xylene (Total)	ND	mg/kg	0.017	0.0041	1	09/15/22 14:48	09/16/22 11:27	1330-20-7	
Surrogates									
Toluene-d8 (S)	109	%	80-120		1	09/15/22 14:48	09/16/22 11:27	2037-26-5	
4-Bromofluorobenzene (S)	103	%	83-119		1	09/15/22 14:48	09/16/22 11:27	460-00-4	
1,2-Dichlorobenzene-d4 (S)	101	%	80-120		1	09/15/22 14:48	09/16/22 11:27	2199-69-1	
Percent Moisture									
Analytical Method: ASTM D2974									
Pace Analytical Services - Kansas City									
Percent Moisture	5.6	%	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	95.7	%			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	1.05	0.267	1	10/03/22 18:00	10/05/22 02:24	18540-29-9	
Wet Chemistry 9045D									
Analytical Method: EPA 9045D Preparation Method: 9045C/9045D									
Pace National - Mt. Juliet									
pH	7.86	Std. Units		0.10	1	09/27/22 15:00	09/27/22 16:00		H3
Wet Chemistry 9050AMod									
Analytical Method: EPA 9050 Preparation Method: 9050A									
Pace National - Mt. Juliet									
Specific Conductance @ 25 C	15700	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	40.7				1	09/30/22 16:13	09/30/22 16:13	SAR	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-5 **Lab ID: 60410331005** Collected: 09/09/22 11:00 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)	11.8J	mg/kg	21.0	4.7	1	09/15/22 21:00	09/16/22 09:18		
TPH-DRO (C10-C28)	ND	mg/kg	10.5	4.7	1	09/15/22 21:00	09/16/22 09:18		
Surrogates									
n-Tetracosane (S)	63	%	31-152		1	09/15/22 21:00	09/16/22 09:18	646-31-1	
p-Terphenyl (S)	68	%	46-130		1	09/15/22 21:00	09/16/22 09:18	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	11.0	1.3	1	09/22/22 16:01	09/23/22 01:19		
Surrogates									
4-Bromofluorobenzene (S)	101	%	66-130		1	09/22/22 16:01	09/23/22 01:19	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	1810	ug/L	200	16.7	1	09/20/22 10:47	09/30/22 02:40	7440-42-8H	
6010 MET ICP Red. Interference									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Barium	137	mg/kg	0.37	0.074	1	09/16/22 08:12	09/20/22 14:12	7440-39-3	
Cadmium	0.41	mg/kg	0.37	0.054	1	09/16/22 08:12	09/20/22 14:12	7440-43-9	
Copper	12.0	mg/kg	1.5	0.31	1	09/16/22 08:12	09/20/22 14:12	7440-50-8	
Lead	11.4	mg/kg	0.75	0.22	1	09/16/22 08:12	09/20/22 14:12	7439-92-1	
Nickel	11.3	mg/kg	0.37	0.19	1	09/16/22 08:12	09/20/22 14:12	7440-02-0	
Selenium	0.53J	mg/kg	1.1	0.23	1	09/16/22 08:12	09/20/22 14:12	7782-49-2	
Silver	ND	mg/kg	0.52	0.081	1	09/16/22 08:12	09/20/22 14:12	7440-22-4	
Zinc	43.0	mg/kg	7.5	0.16	1	09/16/22 08:12	09/20/22 14:12	7440-66-6	
6020 MET ICPMS									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Arsenic	7.8	mg/kg	0.70	0.16	10	09/16/22 08:25	09/22/22 16:46	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	0.0069	0.0038	1	09/15/22 20:56	09/19/22 18:45	83-32-9	
Anthracene	ND	mg/kg	0.0069	0.0036	1	09/15/22 20:56	09/19/22 18:45	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0069	0.0038	1	09/15/22 20:56	09/19/22 18:45	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0069	0.0029	1	09/15/22 20:56	09/19/22 18:45	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0069	0.0038	1	09/15/22 20:56	09/19/22 18:45	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0069	0.0039	1	09/15/22 20:56	09/19/22 18:45	207-08-9	
Chrysene	ND	mg/kg	0.0069	0.0037	1	09/15/22 20:56	09/19/22 18:45	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0069	0.0037	1	09/15/22 20:56	09/19/22 18:45	53-70-3	
Fluoranthene	ND	mg/kg	0.0069	0.0048	1	09/15/22 20:56	09/19/22 18:45	206-44-0	
Fluorene	ND	mg/kg	0.0069	0.0045	1	09/15/22 20:56	09/19/22 18:45	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0069	0.0036	1	09/15/22 20:56	09/19/22 18:45	193-39-5	

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-5 **Lab ID: 60410331005** Collected: 09/09/22 11:00 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	0.0069	0.0033	1	09/15/22 20:56	09/19/22 18:45	90-12-0	L2
2-Methylnaphthalene	ND	mg/kg	0.0069	0.0043	1	09/15/22 20:56	09/19/22 18:45	91-57-6	
Naphthalene	ND	mg/kg	0.0069	0.0035	1	09/15/22 20:56	09/19/22 18:45	91-20-3	
Pyrene	ND	mg/kg	0.0069	0.0045	1	09/15/22 20:56	09/19/22 18:45	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	71	%	40-120		1	09/15/22 20:56	09/19/22 18:45	321-60-8	
Terphenyl-d14 (S)	77	%	45-130		1	09/15/22 20:56	09/19/22 18:45	1718-51-0	
8260C MSV 5035A Low Level									
Analytical Method: EPA 8260C Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Kansas City									
Benzene	0.0015J	mg/kg	0.0056	0.00051	1	09/15/22 14:48	09/16/22 11:48	71-43-2	
Ethylbenzene	ND	mg/kg	0.0056	0.00096	1	09/15/22 14:48	09/16/22 11:48	100-41-4	
Toluene	ND	mg/kg	0.022	0.0049	1	09/15/22 14:48	09/16/22 11:48	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0056	0.00076	1	09/15/22 14:48	09/16/22 11:48	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0056	0.00048	1	09/15/22 14:48	09/16/22 11:48	108-67-8	
Xylene (Total)	ND	mg/kg	0.017	0.0041	1	09/15/22 14:48	09/16/22 11:48	1330-20-7	
Surrogates									
Toluene-d8 (S)	110	%	80-120		1	09/15/22 14:48	09/16/22 11:48	2037-26-5	
4-Bromofluorobenzene (S)	104	%	83-119		1	09/15/22 14:48	09/16/22 11:48	460-00-4	
1,2-Dichlorobenzene-d4 (S)	99	%	80-120		1	09/15/22 14:48	09/16/22 11:48	2199-69-1	
Percent Moisture									
Analytical Method: ASTM D2974									
Pace Analytical Services - Kansas City									
Percent Moisture	5.6	%	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	94.7	%			1	09/19/22 14:57	09/19/22 15:03		
Wet Chemistry 7199									
Analytical Method: EPA 7199 Preparation Method: 3060A									
Pace National - Mt. Juliet									
Chromium, Hexavalent	ND	mg/kg	1.06	0.269	1	10/04/22 04:00	10/05/22 07:27	18540-29-9	
Wet Chemistry 9045D									
Analytical Method: EPA 9045D Preparation Method: 9045C/9045D									
Pace National - Mt. Juliet									
pH	7.68	Std. Units		0.10	1	09/27/22 15:00	09/27/22 16:00		H3
Wet Chemistry 9050AMod									
Analytical Method: EPA 9050 Preparation Method: 9050A									
Pace National - Mt. Juliet									
Specific Conductance @ 25 C	13700	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	25.8				1	09/30/22 13:47	09/30/22 13:47	SAR	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: UPGRADIENT **Lab ID: 60410331006** Collected: 09/09/22 11:20 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
Metals (ICP) 6010B-NE493 Ch 2									
Analytical Method: 6010B-NE493 Ch 2 Preparation Method: HWS Boron Pace National - Mt. Juliet									
Boron, Hot Water Soluble	487	ug/L	200	16.7	1	09/20/22 10:47	09/30/22 02:48	7440-42-8H	
6010 MET ICP Red. Interference									
Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City									
Barium	168	mg/kg	0.51	0.10	1	09/16/22 08:12	09/20/22 14:21	7440-39-3	
Cadmium	0.53	mg/kg	0.51	0.074	1	09/16/22 08:12	09/20/22 14:21	7440-43-9	
Copper	13.9	mg/kg	2.0	0.42	1	09/16/22 08:12	09/20/22 14:21	7440-50-8	
Lead	14.8	mg/kg	1.0	0.29	1	09/16/22 08:12	09/20/22 14:21	7439-92-1	
Nickel	13.0	mg/kg	0.51	0.25	1	09/16/22 08:12	09/20/22 14:21	7440-02-0	
Selenium	0.62J	mg/kg	1.5	0.31	1	09/16/22 08:12	09/20/22 14:21	7782-49-2	
Silver	ND	mg/kg	0.71	0.11	1	09/16/22 08:12	09/20/22 14:21	7440-22-4	
Zinc	53.1	mg/kg	10.2	0.22	1	09/16/22 08:12	09/20/22 14:21	7440-66-6	
6020 MET ICPMS									
Analytical Method: EPA 6020 Preparation Method: EPA 3050 Pace Analytical Services - Kansas City									
Arsenic	7.7	mg/kg	0.74	0.17	10	09/16/22 08:25	09/22/22 16:49	7440-38-2	
Percent Moisture									
Analytical Method: ASTM D2974 Pace Analytical Services - Kansas City									
Percent Moisture	5.3	%	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	95.5	%			1	09/19/22 14:57	09/19/22 15:03		
Wet Chemistry 7199									
Analytical Method: EPA 7199 Preparation Method: 3060A Pace National - Mt. Juliet									
Chromium, Hexavalent	ND	mg/kg	1.05	0.267	1	10/04/22 04:00	10/05/22 07:43	18540-29-9	ML
Wet Chemistry 9045D									
Analytical Method: EPA 9045D Preparation Method: 9045C/9045D Pace National - Mt. Juliet									
pH	8.22	Std. Units		0.10	1	09/27/22 15:00	09/27/22 16:00		H3
Wet Chemistry 9050AMod									
Analytical Method: EPA 9050 Preparation Method: 9050A Pace National - Mt. Juliet									
Specific Conductance @ 25 C	187	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	0.289				1	10/08/22 13:44	10/08/22 13:44	SAR	

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-6 **Lab ID: 60410331007** Collected: 09/09/22 11:10 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)	34.5	mg/kg	21.3	4.8	1	09/15/22 21:00	09/16/22 09:26		
TPH-DRO (C10-C28)	19.5	mg/kg	10.6	4.8	1	09/15/22 21:00	09/16/22 09:26		
Surrogates									
n-Tetracosane (S)	64	%	31-152		1	09/15/22 21:00	09/16/22 09:26	646-31-1	
p-Terphenyl (S)	66	%	46-130		1	09/15/22 21:00	09/16/22 09:26	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	11.3	1.4	1	09/22/22 16:01	09/23/22 01:35		
Surrogates									
4-Bromofluorobenzene (S)	99	%	66-130		1	09/22/22 16:01	09/23/22 01:35	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	998	ug/L	200	16.7	1	09/20/22 10:47	09/30/22 02:51	7440-42-8H	
6010 MET ICP Red. Interference									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Barium	215	mg/kg	0.49	0.097	1	09/16/22 08:12	09/20/22 14:23	7440-39-3	
Cadmium	0.57	mg/kg	0.49	0.071	1	09/16/22 08:12	09/20/22 14:23	7440-43-9	
Copper	17.1	mg/kg	2.0	0.40	1	09/16/22 08:12	09/20/22 14:23	7440-50-8	
Lead	13.9	mg/kg	0.98	0.28	1	09/16/22 08:12	09/20/22 14:23	7439-92-1	
Nickel	14.8	mg/kg	0.49	0.24	1	09/16/22 08:12	09/20/22 14:23	7440-02-0	
Selenium	0.38J	mg/kg	1.5	0.30	1	09/16/22 08:12	09/20/22 14:23	7782-49-2	
Silver	ND	mg/kg	0.68	0.11	1	09/16/22 08:12	09/20/22 14:23	7440-22-4	
Zinc	62.6	mg/kg	9.8	0.21	1	09/16/22 08:12	09/20/22 14:23	7440-66-6	
6020 MET ICPMS									
Analytical Method: EPA 6020 Preparation Method: EPA 3050									
Pace Analytical Services - Kansas City									
Arsenic	7.9	mg/kg	0.88	0.20	10	09/16/22 08:25	09/22/22 16:51	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	0.0071	0.0039	1	09/15/22 20:56	09/19/22 19:03	83-32-9	
Anthracene	ND	mg/kg	0.0071	0.0037	1	09/15/22 20:56	09/19/22 19:03	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0071	0.0039	1	09/15/22 20:56	09/19/22 19:03	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0071	0.0029	1	09/15/22 20:56	09/19/22 19:03	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0071	0.0039	1	09/15/22 20:56	09/19/22 19:03	205-99-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0071	0.0040	1	09/15/22 20:56	09/19/22 19:03	207-08-9	
Chrysene	ND	mg/kg	0.0071	0.0038	1	09/15/22 20:56	09/19/22 19:03	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0071	0.0038	1	09/15/22 20:56	09/19/22 19:03	53-70-3	
Fluoranthene	ND	mg/kg	0.0071	0.0049	1	09/15/22 20:56	09/19/22 19:03	206-44-0	
Fluorene	ND	mg/kg	0.0071	0.0046	1	09/15/22 20:56	09/19/22 19:03	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0071	0.0037	1	09/15/22 20:56	09/19/22 19:03	193-39-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 915-1
Pace Project No.: 60410331

Sample: SL-6 **Lab ID: 60410331007** Collected: 09/09/22 11:10 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	ND	mg/kg	0.0071	0.0034	1	09/15/22 20:56	09/19/22 19:03	90-12-0	L2
2-Methylnaphthalene	ND	mg/kg	0.0071	0.0044	1	09/15/22 20:56	09/19/22 19:03	91-57-6	
Naphthalene	ND	mg/kg	0.0071	0.0036	1	09/15/22 20:56	09/19/22 19:03	91-20-3	
Pyrene	ND	mg/kg	0.0071	0.0046	1	09/15/22 20:56	09/19/22 19:03	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	80	%	40-120		1	09/15/22 20:56	09/19/22 19:03	321-60-8	
Terphenyl-d14 (S)	89	%	45-130		1	09/15/22 20:56	09/19/22 19:03	1718-51-0	
8260C MSV 5035A Low Level									
Analytical Method: EPA 8260C Preparation Method: EPA 5035A/5030B									
Pace Analytical Services - Kansas City									
Benzene	0.0015J	mg/kg	0.0057	0.00052	1	09/15/22 14:48	09/16/22 12:08	71-43-2	
Ethylbenzene	ND	mg/kg	0.0057	0.00099	1	09/15/22 14:48	09/16/22 12:08	100-41-4	
Toluene	ND	mg/kg	0.023	0.0051	1	09/15/22 14:48	09/16/22 12:08	108-88-3	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0057	0.00079	1	09/15/22 14:48	09/16/22 12:08	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0057	0.00049	1	09/15/22 14:48	09/16/22 12:08	108-67-8	
Xylene (Total)	ND	mg/kg	0.017	0.0042	1	09/15/22 14:48	09/16/22 12:08	1330-20-7	
Surrogates									
Toluene-d8 (S)	112	%	80-120		1	09/15/22 14:48	09/16/22 12:08	2037-26-5	
4-Bromofluorobenzene (S)	102	%	83-119		1	09/15/22 14:48	09/16/22 12:08	460-00-4	
1,2-Dichlorobenzene-d4 (S)	99	%	80-120		1	09/15/22 14:48	09/16/22 12:08	2199-69-1	
Percent Moisture									
Analytical Method: ASTM D2974									
Pace Analytical Services - Kansas City									
Percent Moisture	6.8	%	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	94.8	%			1	09/19/22 14:57	09/19/22 15:03		
Wet Chemistry 7199									
Analytical Method: EPA 7199 Preparation Method: 3060A									
Pace National - Mt. Juliet									
Chromium, Hexavalent	ND	mg/kg	1.06	0.269	1	10/03/22 18:00	10/05/22 02:29	18540-29-9	
Wet Chemistry 9045D									
Analytical Method: EPA 9045D Preparation Method: 9045C/9045D									
Pace National - Mt. Juliet									
pH	7.98	Std. Units		0.10	1	09/27/22 15:00	09/27/22 16:00		H3
Wet Chemistry 9050AMod									
Analytical Method: EPA 9050 Preparation Method: 9050A									
Pace National - Mt. Juliet									
Specific Conductance @ 25 C	375	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	1.47				1	09/29/22 22:26	09/29/22 22:26	SAR	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

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: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331007

METHOD BLANK: 3217660 Matrix: Solid
Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331007

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			

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

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

Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331006, 60410331007

METHOD BLANK: R3843099-1 Matrix: Solid

Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331006, 60410331007

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	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

QC Batch:	807994	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
		Laboratory:	Pace Analytical Services - Kansas City

Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331006, 60410331007

METHOD BLANK: 3214265 Matrix: Solid
Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331006, 60410331007

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	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

QC Batch:	807998	Analysis Method:	EPA 6020
QC Batch Method:	EPA 3050	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Kansas City

Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331006, 60410331007

METHOD BLANK: 3214275 Matrix: Solid
Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331006, 60410331007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	0.23	09/22/22 16:18	

LABORATORY CONTROL SAMPLE: 3214276

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	100	97.1	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3214277 3214278

Parameter	Units	60410331001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	8.1	88	86.6	91.5	90.5	95	95	75-125	1	20	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

QC Batch:	807907	Analysis Method:	EPA 8260C
QC Batch Method:	EPA 5035A/5030B	Analysis Description:	8260C MSV 5035A Low Level
		Laboratory:	Pace Analytical Services - Kansas City

Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331007

METHOD BLANK: 3214062 Matrix: Solid
Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331007

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

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

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: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331007

METHOD BLANK: 3214033 Matrix: Solid
Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331007

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			

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

QC Batch: 807896 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331007

METHOD BLANK: 3214028 Matrix: Solid
Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331007

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	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

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			

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

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: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331006, 60410331007

METHOD BLANK: 3213542 Matrix: Solid
Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331006, 60410331007

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	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

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: 60410331001, 60410331002, 60410331003, 60410331004

METHOD BLANK: R3839261-1 Matrix: Solid
Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004

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	L1536689-02 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	78.8	79.0	0.297	10	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

QC Batch:	1928307	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: 60410331005, 60410331006, 60410331007

METHOD BLANK: R3839254-1 Matrix: Solid
Associated Lab Samples: 60410331005, 60410331006, 60410331007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00800			09/19/22 15:03	

LABORATORY CONTROL SAMPLE: R3839254-2

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

SAMPLE DUPLICATE: R3839254-3

Parameter	Units	60410331006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	95.5	95.2	0.292	10	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

QC Batch: 1936617 Analysis Method: EPA 7199
QC Batch Method: 3060A Analysis Description: Wet Chemistry 7199
Laboratory: Pace National - Mt. Juliet
Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331007

METHOD BLANK: R3844728-1 Matrix: Solid
Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331007

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	L1536689-01 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	ND	ND	0.00	20	

SAMPLE DUPLICATE: R3844728-4

Parameter	Units	60410331002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	ND	ND	0.00	20	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

QC Batch: 1936620 Analysis Method: EPA 7199
QC Batch Method: 3060A Analysis Description: Wet Chemistry 7199
Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 60410331005, 60410331006

METHOD BLANK: R3844819-1 Matrix: Solid

Associated Lab Samples: 60410331005, 60410331006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	mg/kg	ND	1.00	0.255	10/05/22 06:38	

LABORATORY CONTROL SAMPLE: R3844819-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	10.0	9.84	98.4	80.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3844819-5 R3844819-6

Parameter	Units	60410331006 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	20.9	20.9	9.24	7.67	44.1	36.6	75.0-125	18.6	20	ML

MATRIX SPIKE SAMPLE: R3844819-8

Parameter	Units	60410331006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	ND	671	654	97.5	75.0-125	

SAMPLE DUPLICATE: R3844819-9

Parameter	Units	L1536961-01 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	0.891	0.924J	3.68	20 J	

SAMPLE DUPLICATE: R3844819-11

Parameter	Units	L1536961-06 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	40.0	37.6	6.21	20	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

QC Batch: 1932334	Analysis Method: EPA 9045D
QC Batch Method: 9045C/9045D	Analysis Description: Wet Chemistry 9045D
	Laboratory: Pace National - Mt. Juliet

Associated Lab Samples: 60410331001

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	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

QC Batch:	1933058	Analysis Method:	EPA 9045D
QC Batch Method:	9045C/9045D	Analysis Description:	Wet Chemistry 9045D
		Laboratory:	Pace National - Mt. Juliet

Associated Lab Samples: 60410331002, 60410331003, 60410331004, 60410331005, 60410331006, 60410331007

LABORATORY CONTROL SAMPLE: R3842014-1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH	Std. Units	10.0	9.90	99.0	99.0-101	

SAMPLE DUPLICATE: R3842014-3

Parameter	Units	L1536793-01 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	8.17	8.17	0.00	1	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

QC Batch:	1928750	Analysis Method:	EPA 9050
QC Batch Method:	EPA 9050	Analysis Description:	Wet Chemistry 9050AMod
		Laboratory:	Pace National - Mt. Juliet

Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331006, 60410331007

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	60410331002 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance @ 25 C	umhos/cm	1500	1500	0.134	20	

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QUALITY CONTROL DATA

Project: 915-1
Pace Project No.: 60410331

QC Batch:	1928750	Analysis Method:	EPA 9050
QC Batch Method:	9050A	Analysis Description:	Wet Chemistry 9050AMod
		Laboratory:	Pace National - Mt. Juliet

Associated Lab Samples: 60410331001, 60410331002, 60410331003, 60410331004, 60410331005, 60410331006, 60410331007

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	60410331002 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance @ 25 C	umhos/cm	1500	1500	0.134	20	

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QUALIFIERS

Project: 915-1
Pace Project No.: 60410331

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.

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

TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 60410331001

[1] Wet Chemistry by Method 9045D - 7.86 at 21.1C

[1] Wet Chemistry by Method 9050AMod - at 25C

Sample: 60410331002

[1] Wet Chemistry by Method 9045D - 8.58 at 20.5C

[1] Wet Chemistry by Method 9050AMod - at 25C

Sample: 60410331003

[1] Wet Chemistry by Method 9045D - 7.95 at 20.5C

[1] Wet Chemistry by Method 9050AMod - at 25C

Sample: 60410331004

[1] Wet Chemistry by Method 9045D - 7.86 at 20.4C

[1] Wet Chemistry by Method 9050AMod - at 25C

Sample: 60410331005

[1] Wet Chemistry by Method 9045D - 7.68 at 20.4C

[1] Wet Chemistry by Method 9050AMod - at 25C

Sample: 60410331006

[1] Wet Chemistry by Method 9045D - 8.22 at 20.2C

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 915-1
Pace Project No.: 60410331

SAMPLE QUALIFIERS

Sample: 60410331006
[1] Wet Chemistry by Method 9050AMod - at 25C

Sample: 60410331007
[1] Wet Chemistry by Method 9045D - 7.98 at 20.1C
[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: R3842014-1
[1] Wet Chemistry by Method 9045D - 9.9 at 19.8C

Sample: R3842014-3
[1] Wet Chemistry by Method 9045D - 8.17 at 20.1C

Sample: L1536652-01
[1] Wet Chemistry by Method 9050AMod - at 25C

Sample: L1536793-01
[1] Wet Chemistry by Method 9045D - 8.17 at 20.2C

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.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 915-1

Pace Project No.: 60410331

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60410331001	SL-1	EPA 3546	807897	EPA 8015B	807988
60410331002	SL-2	EPA 3546	807897	EPA 8015B	807988
60410331003	SL-3	EPA 3546	807897	EPA 8015B	807988
60410331004	SL-4	EPA 3546	807897	EPA 8015B	807988
60410331005	SL-5	EPA 3546	807897	EPA 8015B	807988
60410331007	SL-6	EPA 3546	807897	EPA 8015B	807988
60410331001	SL-1	EPA 5035A/5030B	808947	EPA 8015B	809156
60410331002	SL-2	EPA 5035A/5030B	808947	EPA 8015B	809156
60410331003	SL-3	EPA 5035A/5030B	808947	EPA 8015B	809156
60410331004	SL-4	EPA 5035A/5030B	808947	EPA 8015B	809156
60410331005	SL-5	EPA 5035A/5030B	808947	EPA 8015B	809156
60410331007	SL-6	EPA 5035A/5030B	808947	EPA 8015B	809156
60410331001	SL-1	HWS Boron	1928101	6010B-NE493 Ch 2	1928101
60410331002	SL-2	HWS Boron	1928101	6010B-NE493 Ch 2	1928101
60410331003	SL-3	HWS Boron	1928101	6010B-NE493 Ch 2	1928101
60410331004	SL-4	HWS Boron	1928101	6010B-NE493 Ch 2	1928101
60410331005	SL-5	HWS Boron	1928101	6010B-NE493 Ch 2	1928101
60410331006	UPGRADIENT	HWS Boron	1928101	6010B-NE493 Ch 2	1928101
60410331007	SL-6	HWS Boron	1928101	6010B-NE493 Ch 2	1928101
60410331001	SL-1	EPA 3050	807994	EPA 6010	808083
60410331002	SL-2	EPA 3050	807994	EPA 6010	808083
60410331003	SL-3	EPA 3050	807994	EPA 6010	808083
60410331004	SL-4	EPA 3050	807994	EPA 6010	808083
60410331005	SL-5	EPA 3050	807994	EPA 6010	808083
60410331006	UPGRADIENT	EPA 3050	807994	EPA 6010	808083
60410331007	SL-6	EPA 3050	807994	EPA 6010	808083
60410331001	SL-1	EPA 3050	807998	EPA 6020	808085
60410331002	SL-2	EPA 3050	807998	EPA 6020	808085
60410331003	SL-3	EPA 3050	807998	EPA 6020	808085
60410331004	SL-4	EPA 3050	807998	EPA 6020	808085
60410331005	SL-5	EPA 3050	807998	EPA 6020	808085
60410331006	UPGRADIENT	EPA 3050	807998	EPA 6020	808085
60410331007	SL-6	EPA 3050	807998	EPA 6020	808085
60410331001	SL-1	EPA 3546	807896	EPA 8270 by SIM	808223
60410331002	SL-2	EPA 3546	807896	EPA 8270 by SIM	808223
60410331003	SL-3	EPA 3546	807896	EPA 8270 by SIM	808223
60410331004	SL-4	EPA 3546	807896	EPA 8270 by SIM	808223
60410331005	SL-5	EPA 3546	807896	EPA 8270 by SIM	808223
60410331007	SL-6	EPA 3546	807896	EPA 8270 by SIM	808223
60410331001	SL-1	EPA 5035A/5030B	807907	EPA 8260C	807946
60410331002	SL-2	EPA 5035A/5030B	807907	EPA 8260C	807946
60410331003	SL-3	EPA 5035A/5030B	807907	EPA 8260C	807946
60410331004	SL-4	EPA 5035A/5030B	807907	EPA 8260C	807946
60410331005	SL-5	EPA 5035A/5030B	807907	EPA 8260C	807946
60410331007	SL-6	EPA 5035A/5030B	807907	EPA 8260C	807946

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 915-1

Pace Project No.: 60410331

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60410331001	SL-1	ASTM D2974	807796		
60410331002	SL-2	ASTM D2974	807796		
60410331003	SL-3	ASTM D2974	807796		
60410331004	SL-4	ASTM D2974	807796		
60410331005	SL-5	ASTM D2974	807796		
60410331006	UPGRADIENT	ASTM D2974	807796		
60410331007	SL-6	ASTM D2974	807796		
60410331001	SL-1	SM 2540 G	1928305	SM 2540G	1928305
60410331002	SL-2	SM 2540 G	1928305	SM 2540G	1928305
60410331003	SL-3	SM 2540 G	1928305	SM 2540G	1928305
60410331004	SL-4	SM 2540 G	1928305	SM 2540G	1928305
60410331005	SL-5	SM 2540 G	1928307	SM 2540G	1928307
60410331006	UPGRADIENT	SM 2540 G	1928307	SM 2540G	1928307
60410331007	SL-6	SM 2540 G	1928307	SM 2540G	1928307
60410331001	SL-1	3060A	1936617	EPA 7199	1936617
60410331002	SL-2	3060A	1936617	EPA 7199	1936617
60410331003	SL-3	3060A	1936617	EPA 7199	1936617
60410331004	SL-4	3060A	1936617	EPA 7199	1936617
60410331005	SL-5	3060A	1936620	EPA 7199	1936620
60410331006	UPGRADIENT	3060A	1936620	EPA 7199	1936620
60410331007	SL-6	3060A	1936617	EPA 7199	1936617
60410331001	SL-1	9045C/9045D	1932334	EPA 9045D	1932334
60410331002	SL-2	9045C/9045D	1933058	EPA 9045D	1933058
60410331003	SL-3	9045C/9045D	1933058	EPA 9045D	1933058
60410331004	SL-4	9045C/9045D	1933058	EPA 9045D	1933058
60410331005	SL-5	9045C/9045D	1933058	EPA 9045D	1933058
60410331006	UPGRADIENT	9045C/9045D	1933058	EPA 9045D	1933058
60410331007	SL-6	9045C/9045D	1933058	EPA 9045D	1933058
60410331001	SL-1	9050A	1928750	EPA 9050	1928750
60410331002	SL-2	9050A	1928750	EPA 9050	1928750
60410331003	SL-3	9050A	1928750	EPA 9050	1928750
60410331004	SL-4	9050A	1928750	EPA 9050	1928750
60410331005	SL-5	9050A	1928750	EPA 9050	1928750
60410331006	UPGRADIENT	9050A	1928750	EPA 9050	1928750
60410331007	SL-6	9050A	1928750	EPA 9050	1928750
60410331001	SL-1	Calc	1932206	Calculated	1932206
60410331002	SL-2	Calc	1932206	Calculated	1932206
60410331003	SL-3	Calc	1932206	Calculated	1932206
60410331004	SL-4	Calc	1932206	Calculated	1932206
60410331005	SL-5	Calc	1934206	Calculated	1934206
60410331006	UPGRADIENT	Calc	1938855	Calculated	1938855
60410331007	SL-6	Calc	1932206	Calculated	1932206

REPORT OF LABORATORY ANALYSIS

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DC#_Title: ENV-FRM-LENE-0009_Samp

Revision: 2

Effective Date: 01/12/20

WO#: 60410331



60410331

Client Name: Mull DrillingCourier: 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 ☒ 201CThermometer Used: 7299 Type of Ice: Wet Blue ☐ None ☐Cooler Temperature (°C): As-read 3.1 Corr. Factor 0.0 Corrected 3.1Date and initials of person
examining contents: 09.14.2022

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Sample labels match COC: Date / time / ID / analyses	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples contain multiple phases? Matrix: <u>SL</u>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers requiring pH preservation in compliance? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) LOT#:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Potassium iodide test strip turns blue/purple? (Preserve)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Samples from USDA Regulated Area: State: <u>CO</u>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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: _____

REVIEWED

By Trudy Gipson at 1:41 pm, 9/15/22

Date: _____



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/hubs/pas-standard-terms.pdf>.

Page: 1 Of 1

Section A

Required Client Information:		Required Project Information:		Invoice Information:	
Company:	Mull Drilling Company	Report To:	James Beilman	Attention:	
Address:	1700 N Waterfront Pkwy	Copy To:		Company Name:	
Wichita, KS 67206		Purchase Order #:		Address:	
Email:	jbeilman@mulldrilling.com	Project Name:	915-1	Pace Quote:	
Phone:	316-364-6366	Project #:	002 SPILL/Breakdown	Pace Project Manager:	nolle.wood@pacelabs.com
Requested Due Date:				Profile #:	15035, 2

Section B

Requested Analysis Filtered (Y/N)		Requested Analysis Filtered (Y/N)	
Y/N	Analyses Test	Y/N	Analyses Test
	VOAS/SVOA PAH SIM		VOAS/SVOA PAH SIM
	6015 DR/GRO		6015 DR/GRO
	6010/6020 metals		6010/6020 metals
	Paste EC, SAR, pH		Paste EC, SAR, pH
	HW/Boron, 7199 CrV		HW/Boron, 7199 CrV

Section C

Matrix		Code		Sample ID	
Drinking Water	DW	Water	WT	One Character per box.	
Waste Water	WW	Product	P	(A-Z, 0-9, -,)	
Soil/Solid	SL	Oil	OL	Sample IDs must be unique	
Wipe	WP	Air	AR		
Other	OT				
Tissue	TS				

ITEM #	MATRIX	CODE	COLLECTED				SAMPLE TYPE (G=GRAB C=COMP)	DATE		TIME		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analyses Test	Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	60410321																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
			MATRIX	Drinking Water	Water	Waste Water		Product	Soil/Solid	Oil	Wipe			Air	Other	Tissue	Unpreserved	H2SO4	HNO3	HCl	NaOH			Na2S2O3	Methanol	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Send 7199 CrV, Saturated Paste EC, SAR, pH, and Hot Water Boron to Pace National	James Beilman	9/14	1110	Pace	9/14	1110	3.1 Y NY

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on	Custody	Sealed	Cooler	Intact
PRINT Name of SAMPLER:				(Y/N)	(Y/N)	(Y/N)	(Y/N)
SIGNATURE of SAMPLER:							
DATE Signed:							

9/9/22

Mud Drilling

Client:

Profile #

1567U-8260SMUL

Site:

915-1

Notes

1 W6KV-SI-Wet (7199 cu, boron paste (S
SI-met

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

Container Codes

Glass		Plastic		Misc.	
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NaOH plastic
DG9H	40mL HCl amber vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NaOH plastic
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate
				BP4U	125mL unpreserved plastic
				BP4N	125mL HNO3 plastic
				BP4S	125mL H2SO4 plastic
				WPDU	16oz unpreserved plastic

Work Order Number:

60410331

Internal Transfer Chain of Custody

☐ 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: 60410331

Workorder Name: 915-1

[illegible]

***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

COC Seal Present/Intact: 1 N If Applicable

COC Signed/Accurate: 1 N VOA Zero Headspace: Y N

Bottles arrive intact: 1 N Pres. Correct/Check: Y N

Correct bottles used: 1 N

Sufficient volume sent: 1 N JAA7 3.8 + 0 = 3.8

RAD Screen <0.5 mR/hr: 1 N



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

INTER_LABORATORY WORK ORDER # 60410331

(To be completed by sending lab)

Sending Project No:	60410331
Receiving Project No:	
Check Box for Consolidated Invoice:	<input type="checkbox"/>
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
Hot Water Boron	WGKU	7	Unpreserved	7
7199 CrIV			Unpreserved	7
Paste EC, SAR, pH			Unpreserved	7
TOTAL				\$1,456.00

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	\$861.00	\$688.80	\$172.20
Wet Chemistry	21	\$595.00	\$476.00	\$119.00
* Custom Revenue Allocation	TOTAL	\$1,456.00	\$1,164.80	\$291.20

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.

April 10, 2024

Mull Drilling

Kendall Pelton

1700 N Waterfront Pkway Bldg #1200

Wichita

KS

67206

Project Name - Brackman Farms C

Project Number - [none]

Attached are your analytical results for Brackman Farms C received by Origins Laboratory, Inc. March 29, 2024. This project is associated with Origins project number Y403870-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SL 7 1'	Y403870-01	Soil	March 28, 2024 12:40	03/29/2024 16:41
SL 7 4'	Y403870-02	Soil	March 28, 2024 12:45	03/29/2024 16:41
SL 8 1'	Y403870-03	Soil	March 28, 2024 12:00	03/29/2024 16:41
SL 8 4'	Y403870-04	Soil	March 28, 2024 12:05	03/29/2024 16:41
SL 9 1'	Y403870-05	Soil	March 28, 2024 12:10	03/29/2024 16:41
SL 9 4'	Y403870-06	Soil	March 28, 2024 12:15	03/29/2024 16:41
SL 10 1'	Y403870-07	Soil	March 28, 2024 12:20	03/29/2024 16:41
SL 10 4'	Y403870-08	Soil	March 28, 2024 12:25	03/29/2024 16:41
SL 11 1'	Y403870-09	Soil	March 28, 2024 12:50	03/29/2024 16:41
SL 11 4'	Y403870-10	Soil	March 28, 2024 12:55	03/29/2024 16:41
SL 12 1'	Y403870-11	Soil	March 28, 2024 12:30	03/29/2024 16:41
SL 12 4'	Y403870-12	Soil	March 28, 2024 12:35	03/29/2024 16:41
BG01 1'	Y403870-13	Soil	March 28, 2024 11:25	03/29/2024 16:41
BG01 4'	Y403870-14	Soil	March 28, 2024 11:30	03/29/2024 16:41

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BG02 1'	Y403870-15	Soil	March 28, 2024 10:40	03/29/2024 16:41
BG02 4'	Y403870-16	Soil	March 28, 2024 10:45	03/29/2024 16:41
BG03 1'	Y403870-17	Soil	March 28, 2024 11:05	03/29/2024 16:41
BG03 4'	Y403870-18	Soil	March 28, 2024 11:10	03/29/2024 16:41

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita

KS

67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

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page 1 of 2

4403870

ORIGINS
LABORATORY, INC

Client: Mull Drilling
Address: 1700 N Waterfront Pkwy
Wichita, KS 67206
Telephone Number: 316-264-1366
Email Address:

Project Manager: Kendall Pelton
Project Name: Brackman Farms C
Project Number:
Samples Collected By: Kendall Pelton

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summary		
SL 7 1	3/28/24	11:40	2	X					X		EC, SAR, pH, Boron, TPH, H2SO4, Uranium	1
SL 7 4	3/28/24	12:45	2	X					X			2
SL 8 1	3/28/24	12:00	2	X					X			3
SL 8 4	3/28/24	12:05	2	X					X			4
SL 9 1	3/28/24	12:10	2	X					X			5
SL 9 4	3/28/24	12:15	2	X					X			6
SL 10 1	3/28/24	12:20	2	X					X			7
SL 10 4	3/28/24	12:25	2	X					X			8
SL 11 1	3/28/24	12:50	2	X					X			9
SL 11 4	3/28/24	12:55	2	X					X			10
Relinquished By: Kendall Pelton	Date: 3/28/24	Time: 1611		Received By: CHS				Received By:			Date: 3/29/24	Time: 1641
Relinquished By:	Date:	Time:		Received By:				Received By:			Date:	Time:
											Turnaround Time:	
											Same Day <input type="checkbox"/>	
											48 Hr <input type="checkbox"/>	
											72 Hr <input type="checkbox"/>	
											Standard <input checked="" type="checkbox"/>	

1725 Elk Place | Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Origins Laboratory, Inc.

J. Bynon

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Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

www.originslaboratory.com

page 2 of 2

1403840

ORIGINS LABORATORY, INC

Client: Mull Drilling

Address: 1700 N Waterfront Pkwy Bldg #1200, Wichita, KS 67206

Telephone Number: 316-264-6366

Email Address:

Project Manager: Kendall Pelton

Project Name: Brackman Farms C

Project Number:

Samples Collected by: Kendall Pelton

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative	Matrix	Analysis	Sample Instructions
SL 12 1'	3/28/24	12:30	2	Unpreserved	Soil	EC, SAR, pH, BSM, TH, MSBIC, LWHKIN	1
SL 12 4'	3/28/24	12:35	2	Unpreserved	Soil		2
B9 01 1'	3/28/24	11:25	2	Unpreserved	Soil		3
B9 01 4'	3/28/24	11:30	2	Unpreserved	Soil		4
B9 02 1'	3/28/24	10:40	2	Unpreserved	Soil		5
B9 02 4'	3/28/24	10:45	2	Unpreserved	Soil		6
B9 03 1'	3/28/24	11:05	2	Unpreserved	Soil		7
B9 03 4'	3/28/24	11:10	2	Unpreserved	Soil		8
							9
							10
Relinquished By: Kendall Pelton	Date: 3/28/24	Time: 1641	Received By: EHS	Date: 3/29/24	Time: 1641	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:		

Date Results Needed

1.7

Origins Laboratory, Inc.

J. Bynon

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Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita

KS

67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: 4403870

Client: Mull

Client Project ID: Brackman Farms C

Checklist Completed by: EHS

Shipped Via: HO

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 3/29/24

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____ (Describe)

Cooler Number/Temperature: 1 117 °C 1 °C 1 °C 1 °C

Thermometer ID: TOO4

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No sample times
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any): <u>New COC's received by email on 4/1</u>				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by: JB (Project Manager)

4/2/24
Date/Time Reviewed

Origins Laboratory, Inc.

J. Bynon

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 7 1'

3/28/2024 12:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.744	0.101	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	96.3 %	50-150			"	"	"	
------------------------	--------	--------	--	--	---	---	---	--

GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	134 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	93.7 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.31	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	ND	0.823	"	"	"	"	"	
Sodium	6.01	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 7 1'

3/28/2024 12:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-01 (Soil)

pH in Soil by 9045D

pH	8.45			pH Units	1	B4D0517	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	6.51		0.0100	SAR	1	B4D0502	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.918		0.00500	mmhos/cm	1	B4D0517	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	7.01		0.279	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.170	0.425	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 7 4'

3/28/2024 12:45:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-02 (Soil)

Boron (DTPA Sorbitol)

Boron	0.684	0.0985	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	89.2 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
-----------------------------	----	-------	-------	---	---------	------------	------------	----

Surrogate: 1,2-Dichloroethane-d4	134 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	93.8 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	9.69	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	6.05	0.823	"	"	"	"	"	
Sodium	18.9	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

SL 7 4'

3/28/2024 12:45:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-02 (Soil)

pH in Soil by 9045D

pH	8.10			pH Units	1	B4D0517	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	6.73		0.0100	SAR	1	B4D0502	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	3.79		0.00500	mmhos/cm	1	B4D0517	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	6.57		0.261	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.168	0.421	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 8 1'

3/28/2024 12:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-03 (Soil)

Boron (DTPA Sorbitol)

Boron	0.422	0.101	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	86.4 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
-----------------------------	----	-------	-------	---	---------	------------	------------	----

Surrogate: 1,2-Dichloroethane-d4	133 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	94.4 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.49	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	ND	0.823	"	"	"	"	"	
Sodium	0.877	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 8 1'

3/28/2024 12:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-03 (Soil)

pH in Soil by 9045D

pH	8.33			pH Units	1	B4D0517	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	0.877		0.0100	SAR	1	B4D0502	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.333		0.00500	mmhos/cm	1	B4D0517	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	7.53		0.281	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.175	0.438	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

SL 8 4'

3/28/2024 12:05:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-04 (Soil)

Boron (DTPA Sorbitol)

Boron	0.463	0.0999	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	87.1 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	133 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	93.7 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	2.02	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	1.51	0.823	"	"	"	"	"	
Sodium	1.06	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

SL 8 4'

3/28/2024 12:05:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-04 (Soil)

pH in Soil by 9045D

pH	8.40			pH Units	1	B4D0517	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	0.797		0.0100	SAR	1	B4D0502	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.615		0.00500	mmhos/cm	1	B4D0517	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	9.11		0.261	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.162	0.404	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling
1700 N Waterfront Pkwy Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

SL 9 1'

3/28/2024 12:10:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-05 (Soil)

Boron (DTPA Sorbitol)

Boron	0.701	0.100	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	98.4 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	135 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	94.1 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.30	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	ND	0.823	"	"	"	"	"	
Sodium	0.676	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 9 1'

3/28/2024 12:10:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-05 (Soil)

pH in Soil by 9045D

pH	8.40			pH Units	1	B4D0517	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	0.695		0.0100	SAR	1	B4D0502	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.265		0.00500	mmhos/cm	1	B4D0517	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	8.99		0.275	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.176	0.439	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 9 4'

3/28/2024 12:15:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-06 (Soil)

Boron (DTPA Sorbitol)

Boron	0.961	0.0997	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	86.7 %	50-150			"	"	"
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	125 %	70-130			"	"	"
Surrogate: Toluene-d8	94.7 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"

Metals by Saturated Paste by EPA 6010

Calcium	0.773	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	2.22	0.435	"	"	"	"	"

Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

SL 9 4'

3/28/2024 12:15:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-06 (Soil)

pH in Soil by 9045D

pH	8.51			pH Units	1	B4D0517	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	2.67		0.0100	SAR	1	B4D0502	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.379		0.00500	mmhos/cm	1	B4D0517	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	6.10		0.268	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.122	0.304	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

SL 10 1'

3/28/2024 12:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-07 (Soil)

Boron (DTPA Sorbitol)

Boron	0.555	0.100	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	92.3 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	134 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	94.7 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.53	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	ND	0.823	"	"	"	"	"	
Sodium	0.493	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

SL 10 1'

3/28/2024 12:20:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-07 (Soil)

pH in Soil by 9045D

pH	8.47			pH Units	1	B4D0517	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	0.486		0.0100	SAR	1	B4D0502	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.256		0.00500	mmhos/cm	1	B4D0517	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	7.91		0.271	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.153	0.383	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 10 4'

3/28/2024 12:25:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-08 (Soil)

Boron (DTPA Sorbitol)

Boron	0.564	0.0999	mg/L	1	B4D0510	04/05/2024	04/09/2024
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	84.4 %	50-150			"	"	"
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	136 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	93.9 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	0.849	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	2.36	0.435	"	"	"	"	"

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 10 4'

3/28/2024 12:25:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-08 (Soil)

pH in Soil by 9045D

pH	8.54			pH Units	1	B4D0517	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	2.75		0.0100	SAR	1	B4D0502	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.346		0.00500	mmhos/cm	1	B4D0517	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	8.32		0.272	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.119	0.299	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 11 1'

3/28/2024 12:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-09 (Soil)

Boron (DTPA Sorbitol)

Boron	0.490	0.100	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	105 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	135 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	95.2 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.59	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	ND	0.823	"	"	"	"	"	
Sodium	1.18	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 11 1'

3/28/2024 12:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-09 (Soil)

pH in Soil by 9045D

pH	8.31			pH Units	1	B4D0518	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	1.10		0.0100	SAR	1	B4D0503	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.370		0.00500	mmhos/cm	1	B4D0518	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	7.29		0.270	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.151	0.378	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 11 4'

3/28/2024 12:55:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-10 (Soil)

Boron (DTPA Sorbitol)

Boron	0.593	0.100	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	117 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	134 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	94.4 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.51	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	1.27	0.823	"	"	"	"	"	
Sodium	2.94	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 11 4'

3/28/2024 12:55:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-10 (Soil)

pH in Soil by 9045D

pH	8.36			pH Units	1	B4D0518	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	2.50		0.0100	SAR	1	B4D0503	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.752		0.00500	mmhos/cm	1	B4D0518	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	6.89		0.250	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.131	0.326	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 12 1'

3/28/2024 12:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-11 (Soil)

Boron (DTPA Sorbitol)

Boron	0.958	0.101	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	87.2 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
-----------------------------	----	-------	-------	---	---------	------------	------------	----

Surrogate: 1,2-Dichloroethane-d4	133 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	95.3 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	3.36	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	ND	0.823	"	"	"	"	"	
Sodium	3.70	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 12 1'

3/28/2024 12:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-11 (Soil)

pH in Soil by 9045D

pH	8.28			pH Units	1	B4D0518	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	2.57		0.0100	SAR	1	B4D0503	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.849		0.00500	mmhos/cm	1	B4D0518	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	7.27		0.252	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.159	0.397	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 12 4'

3/28/2024 12:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-12 (Soil)

Boron (DTPA Sorbitol)

Boron	0.583	0.100	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	87.8 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	134 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	94.4 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	4.61	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	1.94	0.823	"	"	"	"	"	
Sodium	3.20	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 12 4'

3/28/2024 12:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-12 (Soil)

pH in Soil by 9045D

pH	8.12			pH Units	1	B4D0518	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	1.77		0.0100	SAR	1	B4D0503	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.16		0.00500	mmhos/cm	1	B4D0518	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	6.83		0.280	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.134	0.334	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

BG01 1'

3/28/2024 11:25:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-13 (Soil)

Boron (DTPA Sorbitol)

Boron	0.399	0.0986	mg/L	1	B4D0510	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	88.2 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	134 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	94.5 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.73	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	ND	0.823	"	"	"	"	"	
Sodium	ND	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

BG01 1'

3/28/2024 11:25:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-13 (Soil)

pH in Soil by 9045D

pH	8.27			pH Units	1	B4D0518	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	0.178		0.0100	SAR	1	B4D0503	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.215		0.00500	mmhos/cm	1	B4D0518	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	7.14		0.245	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.125	0.311	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

BG01 4'

3/28/2024 11:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-14 (Soil)

Boron (DTPA Sorbitol)

Boron	0.418	0.101	mg/L	1	B4D0511	04/05/2024	04/09/2024
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	78.4 %	50-150			"	"	"
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	131 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	94.0 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	2.31	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024
Magnesium	0.906	0.823	"	"	"	"	"
Sodium	ND	0.435	"	"	"	"	"

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

BG01 4'

3/28/2024 11:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-14 (Soil)

pH in Soil by 9045D

pH	8.38			pH Units	1	B4D0518	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	0.303		0.0100	SAR	1	B4D0503	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.335		0.00500	mmhos/cm	1	B4D0518	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	6.72		0.259	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.104	0.261	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

BG02 1'

3/28/2024 10:40:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-15 (Soil)

Boron (DTPA Sorbitol)

Boron	0.529	0.101	mg/L	1	B4D0511	04/05/2024	04/09/2024
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	85.2 %	50-150			"	"	"
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	132 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	95.5 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.25	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	0.937	0.435	"	"	"	"	"

Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkwy Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

BG02 1'

3/28/2024 10:40:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-15 (Soil)

pH in Soil by 9045D

pH	8.35			pH Units	1	B4D0518	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	0.922		0.0100	SAR	1	B4D0503	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.364		0.00500	mmhos/cm	1	B4D0518	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	7.27		0.271	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	0.131	0.127	0.318	mg/kg dry	1	2590624	04/03/2024	04/03/2024	J
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Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

BG02 4'

3/28/2024 10:45:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y403870-16 (Soil)

Boron (DTPA Sorbitol)

Boron	0.668	0.0996	mg/L	1	B4D0511	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	94.5 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	133 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	94.8 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.5 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.00	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	1.08	0.823	"	"	"	"	"	
Sodium	2.75	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

BG02 4'

3/28/2024 10:45:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-16 (Soil)

pH in Soil by 9045D

pH	8.48			pH Units	1	B4D0518	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	2.69		0.0100	SAR	1	B4D0503	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.627		0.00500	mmhos/cm	1	B4D0518	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	8.37		0.260	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.110	0.275	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

BG03 1'

3/28/2024 11:05:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-17 (Soil)

Boron (DTPA Sorbitol)

Boron	0.383	0.100	mg/L	1	B4D0511	04/05/2024	04/09/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	103 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	131 %	70-130			"	"	"	S-GC
Surrogate: Toluene-d8	96.0 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.56	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024	
Magnesium	ND	0.823	"	"	"	"	"	
Sodium	ND	0.435	"	"	"	"	"	

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

BG03 1'

3/28/2024 11:05:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-17 (Soil)

pH in Soil by 9045D

pH	8.31			pH Units	1	B4D0518	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	0.294		0.0100	SAR	1	B4D0503	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.250		0.00500	mmhos/cm	1	B4D0518	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	5.99		0.248	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.144	0.360	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

BG03 4'

3/28/2024 11:10:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y403870-18 (Soil)

Boron (DTPA Sorbitol)

Boron	0.328	0.100	mg/L	1	B4D0511	04/05/2024	04/09/2024
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4D0216	04/02/2024	04/08/2024	Ua
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	Ua

Surrogate: o-Terphenyl	93.0 %	50-150			"	"	"
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GBTEX+TMBs by 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B4D0453	04/04/2024	04/06/2024	Ua
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Surrogate: 1,2-Dichloroethane-d4	125 %	70-130			"	"	"
Surrogate: Toluene-d8	96.8 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	70-130			"	"	"

Metals by Saturated Paste by EPA 6010

Calcium	1.14	0.499	meq/L	10	[CALC]	04/05/2024	04/08/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	0.440	0.435	"	"	"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

BG03 4'

3/28/2024 11:10:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403870-18 (Soil)

pH in Soil by 9045D

pH	8.39			pH Units	1	B4D0518	04/05/2024	04/05/2024	
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SAR by 20B Saturated Paste

SAR	0.470		0.0100	SAR	1	B4D0503	04/05/2024	04/08/2024	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.246		0.00500	mmhos/cm	1	B4D0518	04/05/2024	04/05/2024	
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Table 915 metals by EPA 6020B

Arsenic	5.33		0.285	mg/kg	10	B4D0123	04/01/2024	04/05/2024	
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Total Metals by 7196A

Hexavalent Chromium	ND	0.104	0.260	mg/kg dry	1	2590624	04/03/2024	04/03/2024	U
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4D0216 - EPA 3550B										
Blank (B4D0216-BLK1)					Prepared: 04/02/2024 Analyzed: 04/08/2024					
Diesel (C10-C28)	ND	25.0	mg/kg							Ua
Residual Range Organics (C28-C40)	ND	100	"							Ua
Surrogate: o-Terphenyl	26		"	24.9		104	50-150			

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4D0216 - EPA 3550B

LCS (B4D0216-BS1)

Prepared: 04/02/2024 Analyzed: 04/08/2024

Diesel (C10-C28)	951	50.0	mg/kg	1000		95.1	70-130			
Residual Range Organics (C28-C40)	1050	200	"	1000		105	70-130			
Surrogate: o-Terphenyl	65		"	49.8		130	50-150			

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4D0216 - EPA 3550B

Matrix Spike (B4D0216-MS1)		Source: Y403870-01			Prepared: 04/02/2024 Analyzed: 04/08/2024					
Diesel (C10-C28)	931	50.0	mg/kg	1000	ND	93.1	70-130			
Residual Range Organics (C28-C40)	1060	200	"	1000	ND	106	70-130			
Surrogate: o-Terphenyl	63		"	49.8		126	50-150			

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B4D0216 - EPA 3550B

Matrix Spike Dup (B4D0216-MSD1)		Source: Y403870-01			Prepared: 04/02/2024 Analyzed: 04/08/2024					
Diesel (C10-C28)	921	50.0	mg/kg	1000	ND	92.1	70-130	1.04	35	
Residual Range Organics (C28-C40)	1040	200	"	1000	ND	104	70-130	2.39	35	
Surrogate: o-Terphenyl	62		"	49.8		125	50-150			

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4D0453 - EPA 5030 (soil)										
Blank (B4D0453-BLK1)					Prepared: 04/04/2024 Analyzed: 04/06/2024					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							Ua
1,3,5-Trimethylbenzene	ND	0.00200	"							Ua
Benzene	ND	0.00200	"							Ua
Ethylbenzene	ND	0.00200	"							Ua
Naphthalene	ND	0.00380	"							Ua
Toluene	ND	0.00200	"							Ua
Xylenes, total	ND	0.00200	"							Ua
Gasoline Range Hydrocarbons	ND	0.200	"							Ua
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		105	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4D0453 - EPA 5030 (soil)

LCS (B4D0453-BS1)

Prepared: 04/04/2024 Analyzed: 04/06/2024

1,2,4-Trimethylbenzene	0.112	0.00200	mg/kg	0.100		112	70-130			
1,3,5-Trimethylbenzene	0.108	0.00200	"	0.100		108	70-130			
Benzene	0.0924	0.00200	"	0.100		92.4	70-130			
Ethylbenzene	0.107	0.00200	"	0.100		107	70-130			
Naphthalene	0.105	0.00380	"	0.100		105	70-130			
Toluene	0.108	0.00200	"	0.100		108	70-130			
o-Xylene	0.113	0.00200	"	0.100		113	70-130			
m,p-Xylene	0.209	0.00400	"	0.200		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		121	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		106	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4D0453 - EPA 5030 (soil)										
Matrix Spike (B4D0453-MS1)		Source: Y403861-01			Prepared: 04/04/2024 Analyzed: 04/06/2024					
1,2,4-Trimethylbenzene	0.105	0.00200	mg/kg	0.100	0.000540	104	70-130			
1,3,5-Trimethylbenzene	0.104	0.00200	"	0.100	ND	104	70-130			
Benzene	0.110	0.00200	"	0.100	ND	110	70-130			
Ethylbenzene	0.104	0.00200	"	0.100	ND	104	70-130			
Naphthalene	0.0829	0.00380	"	0.100	0.00224	80.6	70-130			
Toluene	0.114	0.00200	"	0.100	ND	114	70-130			
o-Xylene	0.101	0.00200	"	0.100	ND	101	70-130			
m,p-Xylene	0.197	0.00400	"	0.200	ND	98.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		119	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4D0453 - EPA 5030 (soil)										
Matrix Spike Dup (B4D0453-MSD1)		Source: Y403861-01			Prepared: 04/04/2024 Analyzed: 04/06/2024					
1,2,4-Trimethylbenzene	0.108	0.00200	mg/kg	0.100	0.000540	107	70-130	2.72	20	
1,3,5-Trimethylbenzene	0.106	0.00200	"	0.100	ND	106	70-130	2.38	20	
Benzene	0.117	0.00200	"	0.100	ND	117	70-130	5.94	20	
Ethylbenzene	0.108	0.00200	"	0.100	ND	108	70-130	3.44	20	
Naphthalene	0.0941	0.00380	"	0.100	0.00224	91.9	70-130	12.7	20	
Toluene	0.119	0.00200	"	0.100	ND	119	70-130	5.05	20	
o-Xylene	0.105	0.00200	"	0.100	ND	105	70-130	3.67	20	
m,p-Xylene	0.203	0.00400	"	0.200	ND	102	70-130	2.90	20	
Surrogate: 1,2-Dichloroethane-d4	0.16		"	0.125		126	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Metals by EPA 6000/7000 Series Methods - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4D0123 - EPA 3050B

Blank (B4D0123-BLK1)

Prepared: 04/01/2024 Analyzed: 04/05/2024

Arsenic ND 0.290 mg/kg

LCS (B4D0123-BS1)

Prepared: 04/01/2024 Analyzed: 04/05/2024

Arsenic 5.64 0.290 mg/kg 5.00 113 80-120

Matrix Spike (B4D0123-MS1)

Source: Y403870-01

Prepared: 04/01/2024 Analyzed: 04/05/2024

Arsenic 14.0 0.253 mg/kg 4.36 7.01 161 75-125 QM-07

Matrix Spike Dup (B4D0123-MSD1)

Source: Y403870-01

Prepared: 04/01/2024 Analyzed: 04/05/2024

Arsenic 13.0 0.275 mg/kg 4.75 7.01 127 75-125 7.29 20 QM-07

Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

Classical Chemistry Parameters - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4D0502 - Saturated Paste Metals

Blank (B4D0502-BLK1)

Prepared: 04/05/2024 Analyzed: 04/08/2024

SAR	ND	0.0100	SAR
Calcium PPM	ND	10.0	mg/L
Magnesium PPM	ND	10.0	"
Sodium PPM	ND	10.0	"

Duplicate (B4D0502-DUP1)

Source: Y403867-01

Prepared: 04/05/2024 Analyzed: 04/08/2024

SAR	ND	0.0100	SAR	13.7		200
Calcium PPM	17.7	10.0	mg/L	26.0	38.0	50
Magnesium PPM	16.4	10.0	"	15.9	3.22	50
Sodium PPM	363	10.0	"	361	0.506	50

Batch B4D0503 - Saturated Paste Metals

Blank (B4D0503-BLK1)

Prepared: 04/05/2024 Analyzed: 04/08/2024

Calcium PPM	ND	10.0	mg/L
SAR	ND	0.0100	SAR
Magnesium PPM	ND	10.0	mg/L
Sodium PPM	ND	10.0	"

Duplicate (B4D0503-DUP1)

Source: Y403870-09

Prepared: 04/05/2024 Analyzed: 04/08/2024

SAR	ND	0.0100	SAR	1.10		200
Calcium PPM	30.4	10.0	mg/L	31.9	4.72	50
Magnesium PPM	8.16	10.0	"	8.84	8.00	50
Sodium PPM	24.0	10.0	"	27.2	12.5	50

Batch B4D0510 - DTPA Sorbitol Preparation

Blank (B4D0510-BLK1)

Prepared: 04/05/2024 Analyzed: 04/09/2024

Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkwy Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

Classical Chemistry Parameters - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4D0510 - DTPA Sorbitol Preparation										
Blank (B4D0510-BLK1)					Prepared: 04/05/2024 Analyzed: 04/09/2024					
Boron	ND	0.100	mg/L							
Duplicate (B4D0510-DUP1)					Source: Y403870-01 Prepared: 04/05/2024 Analyzed: 04/09/2024					
Boron	0.737	0.101	mg/L		0.744			0.873	50	
Batch B4D0511 - DTPA Sorbitol Preparation										
Blank (B4D0511-BLK1)					Prepared: 04/05/2024 Analyzed: 04/09/2024					
Boron	ND	0.100	mg/L							
Duplicate (B4D0511-DUP1)					Source: Y403870-14 Prepared: 04/05/2024 Analyzed: 04/09/2024					
Boron	0.432	0.101	mg/L		0.418			3.34	50	

Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

Saturated Paste - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4D0517 - Saturated Paste pH/EC

Blank (B4D0517-BLK1)

Prepared: 04/05/2024 Analyzed: 04/05/2024

Specific Conductance (EC) ND 0.00500 mmhos/cm

Duplicate (B4D0517-DUP1)

Source: Y403867-01

Prepared: 04/05/2024 Analyzed: 04/05/2024

pH	8.40		pH Units	8.47		0.830	25
Specific Conductance (EC)	1.91	0.00500	mmhos/cm	1.88		1.33	25

Batch B4D0518 - Saturated Paste pH/EC

Blank (B4D0518-BLK1)

Prepared: 04/05/2024 Analyzed: 04/05/2024

Specific Conductance (EC) ND 0.00500 mmhos/cm

Duplicate (B4D0518-DUP1)

Source: Y403870-09

Prepared: 04/05/2024 Analyzed: 04/05/2024

pH	8.35		pH Units	8.31		0.480	25
Specific Conductance (EC)	0.391	0.00500	mmhos/cm	0.370		5.44	25

Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkway Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Brackman Farms C

Total Metals by 7196A - Quality Control GEL Laboratories, LLC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2590624 - SW846 3060A										
BLANK (1205691957-BLK)					Prepared: 04/03/2024 Analyzed: 04/03/2024					
Hexavalent Chromium	ND	0.329	mg/kg				-			U
LCS (1205691958-BKS)					Prepared: 04/03/2024 Analyzed: 04/03/2024					
Hexavalent Chromium	3.86	0.387	mg/kg	3.87		99.7	80-120			
DUP (1205691959 D)					Source: 660924001 Prepared: 04/03/2024 Analyzed: 04/03/2024					
Hexavalent Chromium	0.156	0.379	mg/kg dry		<0.152		0-50	N/A	50	J
MS (1205691960 S)					Source: 660924001 Prepared: 04/03/2024 Analyzed: 04/03/2024					
Hexavalent Chromium	3.01	0.379	mg/kg dry	3.79	<0.152	76.5	75-125			
DUP (1205691961 D)					Source: Y403870-09 Prepared: 04/03/2024 Analyzed: 04/03/2024					
Hexavalent Chromium	ND	0.378	mg/kg dry		<0.151		0-50	N/A	50	U
MS (1205691962 S)					Source: Y403870-09 Prepared: 04/03/2024 Analyzed: 04/03/2024					
Hexavalent Chromium	1.52	0.378	mg/kg dry	3.78	<0.151	40.1	75-125			
ILCS (1205691963-ILCS)					Prepared: 04/03/2024 Analyzed: 04/03/2024					
Hexavalent Chromium	6.53	0.318	mg/kg	6.48		101	80-120			

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Notes and Definitions

Ua Sample is Non-Detect.

U Result not detected above the detection limit

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

J Greater than the detection limit but less than the reporting limit

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Calculated results may use J-flag data (instead of reported "ND") as part of calculation to provide a more accurate result.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



April 12, 2024

Mull Drilling

Kendall Pelton

1700 N Waterfront Pkway Bldg #1200

Wichita

KS 67206

Project Name - Brackman Farms C

Project Number - [none]

Attached are your analytical results for Brackman Farms C received by Origins Laboratory, Inc. April 04, 2024. This project is associated with Origins project number Y404131-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SL 1 4'	Y404131-01	Soil	April 4, 2024 10:30	04/04/2024 14:55
SL 2 4'	Y404131-02	Soil	April 4, 2024 10:35	04/04/2024 14:55
SL 3 4'	Y404131-03	Soil	April 4, 2024 10:40	04/04/2024 14:55
SL 4 4'	Y404131-04	Soil	April 4, 2024 10:45	04/04/2024 14:55
SL 5 8'	Y404131-05	Soil	April 4, 2024 10:50	04/04/2024 14:55

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jordan A. Bynon For Jen Pellegrini, Project Manager

Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita

KS

67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: 4404131

Client: Mull

Client Project ID: Brackman

Checklist Completed by: EHS

Shipped Via: HO

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 4/14/12

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____

Cooler Number/Temperature: 1124 °C / _____ °C / _____ °C (Describe) _____ °C

Thermometer ID: 1004

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?		<input checked="" type="checkbox"/>		<u>SD</u>
Is there ice present (document if blue ice is used)		<input checked="" type="checkbox"/>		
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) [Signature]

4/8/12
Date/Time Reviewed

Origins Laboratory, Inc.

[Signature]

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 1 4'

4/4/2024 10:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y404131-01 (Soil)

Boron (DTPA Sorbitol)

Boron	2.55	0.100	mg/L	1	B4D0516	ACC	04/05/2024	04/09/2024
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Metals by Saturated Paste by EPA 6010

Calcium	27.0	0.499	meq/L	10	[CALC]	ACC	04/06/2024	04/08/2024
Magnesium	25.2	0.823	"	"	"	ACC	"	"
Sodium	26.3	0.435	"	"	"	ACC	"	"

pH in Soil by 9045D

pH	7.95		pH Units	1	B4D0615	EAL	04/06/2024	04/08/2024
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SAR by 20B Saturated Paste

SAR	5.15	0.0100	SAR	1	B4D0605	ACC	04/06/2024	04/08/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	6.03	0.00500	mmhos/cm	1	B4D0615	EAL	04/06/2024	04/08/2024
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Table 915 metals by EPA 6020B

Arsenic	7.43	0.261	mg/kg	10	B4D0434	KMC	04/04/2024	04/08/2024
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 2 4'

4/4/2024 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y404131-02 (Soil)

Boron (DTPA Sorbitol)

Boron	3.48	0.0996	mg/L	1	B4D0516	ACC	04/05/2024	04/09/2024
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Metals by Saturated Paste by EPA 6010

Calcium	11.2	0.499	meq/L	10	[CALC]	ACC	04/06/2024	04/08/2024
Magnesium	12.1	0.823	"	"	"	ACC	"	"
Sodium	24.2	0.435	"	"	"	ACC	"	"

pH in Soil by 9045D

pH	8.08		pH Units	1	B4D0615	EAL	04/06/2024	04/08/2024
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SAR by 20B Saturated Paste

SAR	7.08	0.0100	SAR	1	B4D0605	ACC	04/06/2024	04/08/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	3.38	0.00500	mmhos/cm	1	B4D0615	EAL	04/06/2024	04/08/2024
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Table 915 metals by EPA 6020B

Arsenic	7.58	0.285	mg/kg	10	B4D0434	KMC	04/04/2024	04/08/2024
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 3 4'

4/4/2024 10:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y404131-03 (Soil)

Boron (DTPA Sorbitol)

Boron	2.46	1.01	mg/L	10	B4D0516	ACC	04/05/2024	04/09/2024
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Metals by Saturated Paste by EPA 6010

Calcium	391	4.99	meq/L	100	[CALC]	ACC	04/06/2024	04/08/2024
Magnesium	28.0	0.823	"	10	"	ACC	"	"
Sodium	208	4.35	"	100	"	ZZZ	"	04/10/2024

pH in Soil by 9045D

pH	7.77		pH Units	1	B4D0615	EAL	04/06/2024	04/08/2024
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SAR by 20B Saturated Paste

SAR	14.4	0.0100	SAR	1	B4D0605	ACC	04/06/2024	04/08/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	17.9	0.00500	mmhos/cm	1	B4D0615	EAL	04/06/2024	04/08/2024
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Table 915 metals by EPA 6020B

Arsenic	7.57	0.254	mg/kg	10	B4D0434	KMC	04/04/2024	04/08/2024
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 4 4'

4/4/2024 10:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y404131-04 (Soil)

Boron (DTPA Sorbitol)

Boron	2.99	0.101	mg/L	1	B4D0516	ACC	04/05/2024	04/09/2024
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Metals by Saturated Paste by EPA 6010

Calcium	15.4	0.499	meq/L	10	[CALC]	ACC	04/06/2024	04/08/2024
Magnesium	14.0	0.823	"	"	"	ACC	"	"
Sodium	19.2	0.435	"	"	"	ACC	"	"

pH in Soil by 9045D

pH	7.99		pH Units	1	B4D0615	EAL	04/06/2024	04/08/2024
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SAR by 20B Saturated Paste

SAR	5.00	0.0100	SAR	1	B4D0605	ACC	04/06/2024	04/08/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	4.36	0.00500	mmhos/cm	1	B4D0615	EAL	04/06/2024	04/08/2024
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Table 915 metals by EPA 6020B

Arsenic	6.89	0.274	mg/kg	10	B4D0434	KMC	04/04/2024	04/08/2024
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

SL 5 8'

4/4/2024 10:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y404131-05 (Soil)

Boron (DTPA Sorbitol)

Boron	2.51	0.0993	mg/L	1	B4D0516	ACC	04/05/2024	04/09/2024
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Metals by Saturated Paste by EPA 6010

Calcium	16.4	0.499	meq/L	10	[CALC]	ACC	04/06/2024	04/08/2024
Magnesium	16.7	0.823	"	"	"	ACC	"	"
Sodium	23.5	0.435	"	"	"	ACC	"	"

pH in Soil by 9045D

pH	8.08		pH Units	1	B4D0615	EAL	04/06/2024	04/08/2024
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SAR by 20B Saturated Paste

SAR	5.78	0.0100	SAR	1	B4D0605	ACC	04/06/2024	04/08/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	5.12	0.00500	mmhos/cm	1	B4D0615	EAL	04/06/2024	04/08/2024
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Table 915 metals by EPA 6020B

Arsenic	8.31	0.256	mg/kg	10	B4D0434	KMC	04/04/2024	04/08/2024
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Metals by EPA 6000/7000 Series Methods - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4D0434 - EPA 3050B										
Blank (B4D0434-BLK1)					Prepared: 04/04/2024 Analyzed: 04/08/2024					
Arsenic	ND	0.290	mg/kg							
LCS (B4D0434-BS1)					Prepared: 04/04/2024 Analyzed: 04/09/2024					
Arsenic	4.82	0.0290	mg/kg	5.00		96.4	80-120			
Matrix Spike (B4D0434-MS1)		Source: Y404109-01			Prepared: 04/04/2024 Analyzed: 04/09/2024					
Arsenic	6.98	0.263	mg/kg	4.53	1.54	120	75-125			
Matrix Spike Dup (B4D0434-MSD1)		Source: Y404109-01			Prepared: 04/04/2024 Analyzed: 04/09/2024					
Arsenic	6.95	0.270	mg/kg	4.66	1.54	116	75-125	0.366	20	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Classical Chemistry Parameters - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4D0516 - DTPA Sorbitol Preparation

Blank (B4D0516-BLK1)

Prepared: 04/05/2024 Analyzed: 04/09/2024

Boron ND 0.100 mg/L

Duplicate (B4D0516-DUP1)

Source: Y404117-01

Prepared: 04/05/2024 Analyzed: 04/09/2024

Boron 0.255 0.0986 mg/L 0.307 18.3 50

Batch B4D0605 - Saturated Paste Metals

Blank (B4D0605-BLK1)

Prepared: 04/06/2024 Analyzed: 04/08/2024

Calcium PPM ND 10.0 mg/L

SAR ND 0.0100 SAR

Magnesium PPM ND 10.0 mg/L

Sodium PPM ND 10.0 "

Duplicate (B4D0605-DUP1)

Source: Y404131-01

Prepared: 04/06/2024 Analyzed: 04/08/2024

Calcium PPM 518 10.0 mg/L 542 4.47 50

SAR ND 0.0100 SAR 5.15 200

Magnesium PPM 284 10.0 mg/L 306 7.27 50

Sodium PPM 576 10.0 " 604 4.80 50

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Saturated Paste - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4D0615 - Saturated Paste pH/EC										
Blank (B4D0615-BLK1)					Prepared: 04/06/2024 Analyzed: 04/08/2024					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							
Duplicate (B4D0615-DUP1)					Source: Y404131-01 Prepared: 04/06/2024 Analyzed: 04/08/2024					
Specific Conductance (EC)	5.66	0.00500	mmhos/cm		6.03			6.40	25	
pH	7.75		pH Units		7.95			2.55	25	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Brackman Farms C

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



June 17, 2024

Mull Drilling

Kendall Pelton

1700 N Waterfront Pkway Bldg #1200

Wichita

KS 67206

Project Name - Braukmann Farms

Project Number - [none]

Attached are your analytical results for Braukmann Farms received by Origins Laboratory, Inc. May 29, 2024. This project is associated with Origins project number Y405797-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Braukmann Farms

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SL6 5'	Y405797-01	Soil	May 29, 2024 9:45	05/29/2024 13:50
SL7 5'	Y405797-02	Soil	May 29, 2024 9:40	05/29/2024 13:50
SL8 5'	Y405797-03	Soil	May 29, 2024 9:30	05/29/2024 13:50
SL9 5'	Y405797-04	Soil	May 29, 2024 9:20	05/29/2024 13:50
SL10 5'	Y405797-05	Soil	May 29, 2024 9:25	05/29/2024 13:50

Chain of Custody Modification Request

On 6/17/2024, Mackenzie Smith from Ardor Environmental contacted Jordan Bynon via email regarding Y405797 requesting the following sample ID revisions:

EXSL-1A 5' changed to SL6 5'

EXSL-2A 5' changed to SL7 5'

EXSL-5A 5' changed to SL8 5'}

EXSL-4A 5' changed to SL9 5'

EXSL-3A 5' changed to SL10 5'

Requested modifications to the chain of custody were made by Jordan Bynon on 6/17/2024.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkwy Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Braukmann Farms

ORIGINS
LABORATORY, INC

www.originslaboratory.com

Y405797

page of

Client: Mull Drilling

Project Manager: Kendall Pelton

Address: 1700 N Waterfront Pkwy
Wichita KS 67206

Project Name: Braukmann Farms

Telephone Number: 316 264 6366

Project Number:

Email Address: k.pelton@mulldrilling.com

Samples Collected By: Kendall Pelton

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix		Analysis				Sample Instructions		
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa	Other	FTIR	SAR		PH	Boron
EXSL-1A S	5/24/24	9:45	2	X					X				X	X	X	1
EXSL-2A S	5/24/24	9:46	2	X					X				X	X	X	2
EXSL-3A S	5/24/24	9:30	2	X					X				X	X	X	3
EXSL-4A S	5/24/24	9:10	2	X					X				X	X	X	4
EXSL-5A S	5/24/24	9:25	2	X					X				X	X	X	5
																6
																7
																8
																9
																10

Relinquished By: Kendall Pelton	Date: 5/24/24	Time: 1:50	Received By: [Signature]	Date: 5/29/24	Time: 1:50	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	

Temp Received: 13 Date Results Needed

Origins Laboratory, Inc.

J. Bynon

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita

KS

67206

Kendall Pelton

Project Number: [none]

Project: Braukmann Farms

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: 1405797

Client: Mull

Client Project ID: Braukmann

Checklist Completed by: EAD

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 5/29/24

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____

Cooler Number/Temperature: 113 °C 1 °C 1 °C (Describe) _____ °C

Thermometer ID: 1005

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?		<input checked="" type="checkbox"/>		SD
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water — is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) / (pH < 2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAs+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) EAD

5/29/24
Date/Time Reviewed

Origins Laboratory, Inc.

J. Bynon

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Braukmann Farms

SL6 5'

5/29/2024 9:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y405797-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.379	0.100	mg/L	1	B4E3013	ACC	05/30/2024	05/31/2024
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Metals by Saturated Paste by EPA 6010

Calcium	4.29	0.499	meq/L	10	[CALC]	ACC	05/31/2024	06/03/2024
Magnesium	3.51	0.823	"	"	"	ACC	"	"
Sodium	2.43	0.435	"	"	"	ACC	"	"

pH in Soil by 9045D

pH	8.29		pH Units	1	B4E3118	GCG	05/31/2024	05/31/2024
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SAR by 20B Saturated Paste

SAR	1.23	0.0100	SAR	1	B4E3108	ACC	05/31/2024	06/03/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.25	0.00500	mmhos/cm	1	B4E3118	EAL	05/31/2024	06/03/2024
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Table 915 metals by EPA 6020B

Arsenic	7.08	0.244	mg/kg	10	B4E2924	HJD	05/29/2024	05/31/2024
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Braukmann Farms

SL7 5'

5/29/2024 9:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y405797-02 (Soil)

Boron (DTPA Sorbitol)

Boron	1.43	0.101	mg/L	1	B4E3013	ACC	05/30/2024	05/31/2024
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Metals by Saturated Paste by EPA 6010

Calcium	0.722	0.499	meq/L	10	[CALC]	ACC	05/31/2024	06/03/2024
Magnesium	ND	0.823	"	"	"	ACC	"	"
Sodium	4.45	0.435	"	"	"	ACC	"	"

pH in Soil by 9045D

pH	8.67		pH Units	1	B4E3118	GCG	05/31/2024	05/31/2024
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SAR by 20B Saturated Paste

SAR	6.83	0.0100	SAR	1	B4E3108	ACC	05/31/2024	06/03/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.559	0.00500	mmhos/cm	1	B4E3118	EAL	05/31/2024	06/03/2024
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Table 915 metals by EPA 6020B

Arsenic	7.65	0.251	mg/kg	10	B4E2924	HJD	05/29/2024	05/31/2024
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Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Braukmann Farms

SL8 5'

5/29/2024 9:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y405797-03 (Soil)

Boron (DTPA Sorbitol)

Boron	2.86	0.0986	mg/L	1	B4E3013	ACC	05/30/2024	05/31/2024
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Metals by Saturated Paste by EPA 6010

Calcium	69.1	0.499	meq/L	10	[CALC]	ACC	05/31/2024	06/03/2024
Magnesium	34.0	0.823	"	"	"	ACC	"	"
Sodium	301	4.35	"	100	"	ACC	"	06/03/2024

pH in Soil by 9045D

pH	7.70		pH Units	1	B4E3118	GCG	05/31/2024	05/31/2024
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SAR by 20B Saturated Paste

SAR	41.9	0.0100	SAR	1	B4E3108	ACC	05/31/2024	06/03/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	34.4	0.00500	mmhos/cm	1	B4E3118	EAL	05/31/2024	06/03/2024
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Table 915 metals by EPA 6020B

Arsenic	6.09	0.261	mg/kg	10	B4E2924	HJD	05/29/2024	05/31/2024
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Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Braukmann Farms

SL9 5'

5/29/2024 9:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y405797-04 (Soil)

Boron (DTPA Sorbitol)

Boron	1.54	0.0993	mg/L	1	B4E3013	ACC	05/30/2024	05/31/2024
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Metals by Saturated Paste by EPA 6010

Calcium	16.2	0.499	meq/L	10	[CALC]	ACC	05/31/2024	06/03/2024
Magnesium	16.8	0.823	"	"	"	ACC	"	"
Sodium	15.0	0.435	"	"	"	ACC	"	"

pH in Soil by 9045D

pH	8.12		pH Units	1	B4E3118	GCG	05/31/2024	05/31/2024
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SAR by 20B Saturated Paste

SAR	3.70	0.0100	SAR	1	B4E3108	ACC	05/31/2024	06/03/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	5.01	0.00500	mmhos/cm	1	B4E3118	EAL	05/31/2024	06/03/2024
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Table 915 metals by EPA 6020B

Arsenic	8.60	0.275	mg/kg	10	B4E2924	HJD	05/29/2024	05/31/2024
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Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Braukmann Farms

SL10 5'

5/29/2024 9:25:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y405797-05 (Soil)

Boron (DTPA Sorbitol)

Boron	0.555	0.0994	mg/L	1	B4E3013	ACC	05/30/2024	05/31/2024
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Metals by Saturated Paste by EPA 6010

Calcium	6.90	0.499	meq/L	10	[CALC]	ACC	05/31/2024	06/03/2024
Magnesium	5.78	0.823	"	"	"	ACC	"	"
Sodium	10.7	0.435	"	"	"	ACC	"	"

pH in Soil by 9045D

pH	8.24		pH Units	1	B4E3118	GCG	05/31/2024	05/31/2024
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SAR by 20B Saturated Paste

SAR	4.25	0.0100	SAR	1	B4E3108	ACC	05/31/2024	06/03/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.65	0.00500	mmhos/cm	1	B4E3118	EAL	05/31/2024	06/03/2024
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Table 915 metals by EPA 6020B

Arsenic	6.93	0.274	mg/kg	10	B4E2924	HJD	05/29/2024	05/31/2024
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Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Braukmann Farms

Metals by EPA 6000/7000 Series Methods - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4E2924 - EPA 3050B										
Blank (B4E2924-BLK1)					Prepared: 05/29/2024 Analyzed: 05/31/2024					
Arsenic	ND	0.290	mg/kg							
LCS (B4E2924-BS1)					Prepared: 05/29/2024 Analyzed: 05/31/2024					
Arsenic	5.92	0.290	mg/kg	5.00		118	80-120			
Matrix Spike (B4E2924-MS1)		Source: Y405432-01			Prepared: 05/29/2024 Analyzed: 05/31/2024					
Arsenic	7.33	0.247	mg/kg	4.25	2.41	116	75-125			
Matrix Spike Dup (B4E2924-MSD1)		Source: Y405432-01			Prepared: 05/29/2024 Analyzed: 05/31/2024					
Arsenic	7.54	0.278	mg/kg	4.79	2.41	107	75-125	2.83	20	

Origins Laboratory, Inc.



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Mull Drilling
1700 N Waterfront Pkwy Bldg #1200
Wichita KS 67206

Kendall Pelton
Project Number: [none]
Project: Braukmann Farms

Classical Chemistry Parameters - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B4E3013 - DTPA Sorbitol Preparation

Blank (B4E3013-BLK1)

Prepared: 05/30/2024 Analyzed: 05/31/2024

Boron ND 0.100 mg/L

Duplicate (B4E3013-DUP1)

Source: Y405796-01

Prepared: 05/30/2024 Analyzed: 05/31/2024

Boron 0.405 0.0987 mg/L 0.421 3.95 50

Batch B4E3108 - Saturated Paste Metals

Blank (B4E3108-BLK1)

Prepared: 05/31/2024 Analyzed: 06/03/2024

Calcium PPM ND 10.0 mg/L

SAR ND 0.0100 SAR

Magnesium PPM ND 10.0 mg/L

Sodium PPM ND 10.0 "

Duplicate (B4E3108-DUP1)

Source: Y405796-06

Prepared: 05/31/2024 Analyzed: 06/03/2024

SAR ND 0.0100 SAR 4.52 200

Calcium PPM 43.8 10.0 mg/L 46.5 6.03 50

Magnesium PPM 27.2 10.0 " 28.1 2.96 50

Sodium PPM 156 10.0 " 158 1.41 50

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Braukmann Farms

Saturated Paste - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4E3118 - Saturated Paste pH/EC										
Blank (B4E3118-BLK1)					Prepared: 05/31/2024 Analyzed: 05/31/2024					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							
Duplicate (B4E3118-DUP1)					Source: Y405796-06 Prepared: 05/31/2024 Analyzed: 05/31/2024					
Specific Conductance (EC)	1.22	0.00500	mmhos/cm		1.18			2.69	25	
pH	8.44		pH Units		8.45			0.118	25	

Origins Laboratory, Inc.



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Mull Drilling

1700 N Waterfront Pkway Bldg #1200

Wichita KS 67206

Kendall Pelton

Project Number: [none]

Project: Braukmann Farms

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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