ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

RELEASE ASSESSMENT

Location:

North Platte K-O-13 HNC
40.405000, -104.389880
Weld County, Colorado

September 18, 2024
Ensolum Project No. 09C2407031

Prepared for:

Civitas, LLC
650 Southgate Drive | Windsor, CO | 80550
Attn: Mr. Jacob Evans

Appendix A

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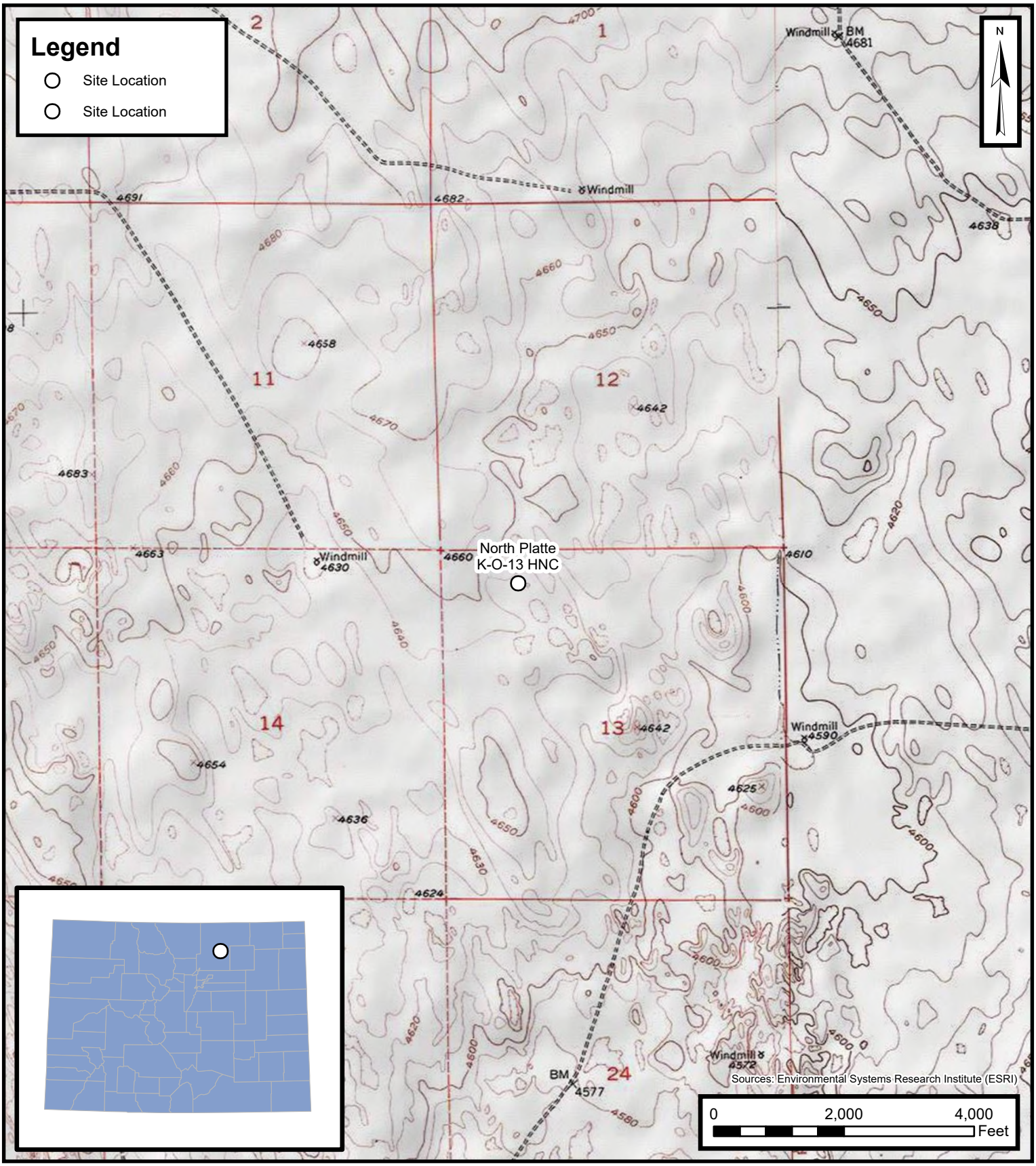

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Site Location Map

North Platte K-O-13 HNC
Bonanza Creek Energy Operating Company
NWNW Sec: 13 Twp: 5N Range: 63W
Weld County, Colorado

Project Number: 09C2407031

FIGURE

1

Folder: C:\Users\Owner\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\Bonanza Creek Energy Operating Company\09C2407031 - North Platte K-O-13 HNC\1 - Map File\Main\

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Soil Sample Location Map

North Platte K-O-13 HNC
Bonanza Creek Energy Operating Company
NWNW Sec: 13 Twp: 5N Range: 63W
Weld County, Colorado

Project Number: 09C2407031

FIGURE 2

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Background Sample Location Map

North Platte K-O-13 HNC
Bonanza Creek Energy Operating Company
NWNW Sec: 13 Twp: 5N Range: 63W
Weld County, Colorado

Project Number: 09C2407031

FIGURE

3

APPENDIX B

Tables

ENSOLUM

Table - 1 PID Readings Summary

Site Name: North Platte K-O-13 HNC	Date: 8/13/2024, 8/29/2024
Site Directions: 70 Ranch	Name: Maxwell Buffy, Fatima Smith
Lat/Long: 40.405000, -104.389880	Weather: 68F, Sunny, 77F, Sunny
Soil Types: SP - poorly sorted sand	Surrounding Land Use: Rangeland

Soil Sample ID	Date	Time	Depth (feet bgs)	PID Reading (ppm)	Visual Observation	Olfactory Observation	Soil Type	Latitude	Longitude	Photos (Y/N)	Submitted For Lab Analysis (Y/N)
B01@7'	8/13/2024	9:05	7	1.6	No Stain	No Odor	SP	40.4050079	-104.3898939	Y	Y
SEP01-INLET@7'	8/13/2024	9:13	7	0.4	No Stain	No Odor	SP	40.404914	-104.3888565	Y	Y
N01@6'	8/13/2024	9:31	6	0.2	No Stain	No Odor	SP	40.4050223	-104.3898941	Y	N
S01@6'	8/13/2024	9:35	6	0.0	No Stain	No Odor	SP	40.4049769	-104.3898967	Y	N
E01@6'	8/13/2024	9:33	6	0.0	No Stain	No Odor	SP	40.4050061	-104.3898749	Y	N
W01@6'	8/13/2024	9:29	6	0.0	No Stain	No Odor	SP	40.4050078	-104.389918	Y	N
FL01@7'	8/13/2024	10:20	7	0.0	No Stain	No Odor	SP	40.4049926	-104.3899133	Y	Y
FL02@7'	8/13/2024	9:56	7	0.0	No Stain	No Odor	SP	40.4049138	-104.3888672	Y	Y
NATIVEBG01@3.5'	8/19/2024	11:48	3.5	0.5	No Stain	No Odor	SP	40.4058172	-104.3914758	Y	Y
NATIVEBG01@7'	8/19/2024	12:02	7	0	No Stain	No Odor	SP	40.4058172	-104.3914758	Y	Y
NATIVEBG02@3.5'	8/19/2024	13:05	3.5	0	No Stain	No Odor	SP	40.4058347	-104.3902408	Y	Y
NATIVEBG02@7'	8/19/2024	13:22	7	0	No Stain	No Odor	SP	40.4058347	-104.3902408	Y	Y
NATIVEBG03@3.5'	8/19/2024	13:50	3.5	0	No Stain	No Odor	SP	40.4059113	-104.3887926	Y	Y
NATIVEBG03@7'	8/19/2024	13:59	7	0	No Stain	No Odor	SP	40.4059113	-104.3887926	Y	Y
NATIVEBG04@3.5'	8/19/2024	12:31	3.5	0	No Stain	No Odor	SP	40.404433	-104.390593	Y	Y
NATIVEBG04@7'	8/19/2024	12:48	7	0	No Stain	No Odor	SP	40.404433	-104.390593	Y	Y
NATIVEBG05@3.5'	8/19/2024	11:10	3.5	0.6	No Stain	No Odor	SP	40.404498	-104.391730	Y	Y
NATIVEBG05@7'	8/19/2024	11:25	7	0.1	No Stain	No Odor	SP	40.404498	-104.391730	Y	Y

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TABLE 2
SOIL ANALYTICAL RESULTS - VOCs
Location: NORTH PLATTE K-0-13 HNC
Operator: BONANZA CREEK ENERGY OPERATING
Weld County, Colorado
Ensolum Project No. 09C2407031

Soil Sample Location	Date	Depth (feet bgs)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Naphthalene (mg/Kg)	TVPH-GRO (mg/Kg)	TEPH-DRO (mg/Kg)	TEPH-ORO (mg/Kg)	1,2,4-TMB (mg/Kg)	1,3,5-TMB (mg/Kg)
ECMC Organic Compounds in Soils (1)			**0.0026**	**0.69**	**0.78**	**9.9**	**0.0038**	**500**			**0.0081**	**0.0087**
ECMC Organic Compounds in Soils (2)			**1.2**	**490**	**5.8**	**58**	**2**	**500**			**30**	**27**
Soil Samples												
B01@7'	8/13/2024	7.0	<0.00200	<0.00500	<0.00500	<0.0100	<0.00408	<0.500	<50	<50	<0.00500	<0.00500
SEP01 INLET@7'	8/13/2024	7.0	<0.00200	<0.00500	<0.00500	<0.0100	<0.00408	<0.500	<50	<50	<0.00500	<0.00500
FL01@7'	8/13/2024	7.0	<0.00200	<0.00500	<0.00500	<0.0100	<0.00408	<0.500	<50	<50	<0.00500	<0.00500
FL02@7'	8/13/2024	7.0	<0.00200	<0.00500	<0.00500	<0.0100	<0.00408	<0.500	<50	<50	<0.00500	<0.00500

Notes:
VOCs = Volatile Organic Compounds
(1)Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)
(2)Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)
ECMC = Colorado Energy and Carbon Management Commission
(<) = Analytical result is less than the indicated laboratory reporting limit
mg/kg = milligrams per kilogram
TVPH - GRO = Total Volatile Petroleum Hydrocarbons - Gasoline Range Organics

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TABLE 3
SOIL ANALYTICAL RESULTS - PAHs
Location: NORTH PLATTE K-0-13 HNC
Operator: BONANZA CREEK ENERGY OPERATING
Weld County, Colorado
Ensolum Project No. 09C2407031

Soil Sample Location	Date	Depth (feet bgs)	Acenaphthene (mg/Kg)	Anthracene (mg/Kg)	Benzo(a)A (mg/Kg)	Benzo(b)F (mg/Kg)	Benzo(k)F (mg/Kg)	Benzo(a)P (mg/Kg)	Chrysene (mg/Kg)	D (a,h) A (mg/Kg)	Fluoranthene (mg/Kg)	Fluorene (mg/Kg)	1,2,3-CD (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	Pyrene (mg/kg)
ECMC Organic Compounds in Soils (1)			**0.55**	**5.8**	**0.011**	**0.3**	**2.9**	**0.24**	**9**	**0.96**	**8.9**	**0.54**	**0.98**	**0.006**	**0.019**	**1.3**
ECMC Organic Compounds in Soils (2)			**360**	**1,800**	**1.1**	**1.1**	**11**	**0.11**	**110**	**0.11**	**240**	**240**	**1.1**	**18**	**24**	**180**
Soil Samples																
B01@7'	8/13/2024	7.0	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP01 INLET@7'	8/13/2024	7.0	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01@7'	8/13/2024	7.0	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL02@7'	8/13/2024	7.0	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Notes:
PAHs = Polycyclic Aromatic Hydrocarbons
(1) Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)
(2) Standards for soil are taken from ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)
ECMC = Colorado Energy and Carbon Management Commission
(<) = Analytical result is less than the indicated laboratory reporting limit
mg/kg = milligrams per kilogram
Benzo(a)A = Benzo(a)Anthracene
Benzo(b)F = Benzo(b)Fluoranthene
Benzo(k)F = Benzo(k)Fluoranthene
Benzo(a)P = Benzo(a)Pyrene
D (a,h) A = Dibenz(a,h)Anthracene
1,2,3-CD = Indeno(1,2,3-cd)Pyrene
1-M = 1-Methylnaphthalene
2-M = 2-Methylnaphthalene
BOLD = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations
BOLD = Analytical result is in exceedance of ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

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TABLE 4
SOIL ANALYTICAL RESULTS - Metals
Location: NORTH PLATTE K-0-13 HNC
Operator: BONANZA CREEK ENERGY OPERATING
Weld County, Colorado
Ensolum Project No. 09C2407031

Soil Sample Location	Date	Depth (feet bgs)	Arsenic (mg/Kg)	Barium (mg/Kg)	Cadmium (mg/Kg)	Chromium (VI) (mg/Kg)	Copper (mg/Kg)	Lead (mg/Kg)	Nickel (mg/Kg)	Selenium (mg/Kg)	Silver (mg/Kg)	Zinc (mg/Kg)
ECMC Organic Compounds in Soils (1)			**0.29**	**82**	**0.38**	**0.00067**	**46**	**14**	**26**	**0.26**	**0.8**	**370**
ECMC Organic Compounds in Soils (2)			**0.68**	**15,000**	**71**	**0.3**	**3,100**	**400**	**1,500**	**390**	**390**	**23,000**
Soil Samples												
B01@7'	8/13/2024	7.0	1.23	34.00	<0.200	<0.300	1.12	3.17	2.09	*0.317	<0.127	10.10
SEP01 INLET@7'	8/13/2024	7.0	1.24	26.90	<0.200	<0.300	0.947	3.20	2.19	*0.293	<0.127	9.44
FL01@7'	8/13/2024	7.0	1.61	42.40	<0.200	<0.300	0.991	3.06	2.12	*0.312	<0.127	9.51
FL02@7'	8/13/2024	7.0	1.65	28.50	<0.200	<0.300	1.53	4.19	2.37	*0.36	<0.127	10.5
Backgound Samples												
NATIVE BG01@3.5'	8/19/2024	3.5	1.05	25.50	<0.200	<0.300	0.893	1.74	1.26	<0.260	<0.127	4.33
NATIVE BG01@7'	8/19/2024	7.0	1.60	21.70	<0.200	<0.300	0.881	1.28	0.829	<0.260	<0.127	3.56
NATIVE BG02@3.5'	8/19/2024	3.5	1.65	32.40	<0.200	<0.300	1.96	4.11	2.32	0.50	<0.127	10.2
NATIVE BG02@7'	8/19/2024	7.0	1.13	100.00	<0.200	<0.300	1.78	6.71	2.11	<0.260	<0.127	8.61
NATIVE BG03@3.5'	8/19/2024	3.5	1.21	34.60	<0.200	<0.300	1.83	2.96	2.19	0.288	<0.127	8.84
NATIVE BG03@7'	8/19/2024	7.0	1.32	44.60	<0.200	<0.300	2.05	3.68	3.11	0.345	<0.127	11.1
NATIVE BG04@3.5'	8/19/2024	3.5	1.54	30.20	<0.200	<0.300	1.72	2.62	2.08	<2.00	<0.127	8.51
NATIVE BG04@7'	8/19/2024	7.0	1.39	33.90	<0.200	<0.300	2.44	2.79	1.91	<0.260	<0.127	8.57
NATIVE BG05@3.5'	8/19/2024	3.5	0.841	35.20	<0.200	<0.300	1.61	2.45	2.06	0.274	<0.127	10.6
NATIVE BG05@7'	8/19/2024	7.0	2.02	56.30	<0.200	<0.300	1.9	3.52	3.48	0.359	<0.127	13.4
Highest Background x1.25			**2.52**	**125.00**	<0.200	<0.300	**3.05**	**8.38**	**4.35**	**0.431**	<0.127	**16.75**

Notes:
(1) Standards for soil are taken from ECMC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)
(2) Standards for soil are taken from ECMC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)
ECMC = Colorado Energy and Carbon Management Commission
(<) = Analytical result is less than the indicated laboratory minimum detection limit
mg/kg = milligrams per kilogram
BOLD = Analytical result is in exceedance of ECMC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations
BOLD = Analytical result is in exceedance of ECMC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations
Average background concentration x 1.25
Italics = Laboratory minimum detection limit exceeds the ECMC Table 915-1 Standard
* Result exceeded the ECMC Table 915-1 standard, but was within site-specific 1.25x background multiplier levels

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TABLE 5
SOIL ANALYTICAL RESULTS - Soil Reclamation
Location: NORTH PLATTE K-0-13 HNC
Operator: BONANZA CREEK ENERGY OPERATING
Weld County, Colorado
Ensolum Project No. 09C2407031

Soil Sample Location	Date	Depth (feet bgs)	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC Organic Compounds in Soils (1)			**6 - 8.3**	**<6**	**<4**	**2**
Soil Samples						
B01@7'	8/13/2024	7.0	8.15	1.4	0.236	<2.00
SEP01 INLET@7'	8/13/2024	7.0	7.95	0.606	0.311	<2.00
FL01@7'	8/13/2024	7.0	7.75	0.230	0.128	<2.00
FL02@7'	8/13/2024	7.0	8.08	0.595	0.315	<2.00
Background Samples						
NATIVE BG01@3.5'	8/19/2024	3.5	7.43	0.192	0.148	<2.00
NATIVE BG01@7'	8/19/2024	7.0	8.30	0.247	0.118	<2.00
NATIVE BG02@3.5'	8/19/2024	3.5	7.12	0.127	0.0371	<2.00
NATIVE BG02@7'	8/19/2024	7.0	7.17	0.188	0.0534	<2.00
NATIVE BG03@3.5'	8/19/2024	3.5	6.91	0.127	0.0891	<2.00
NATIVE BG03@7'	8/19/2024	7.0	8.14	0.160	0.190	<2.00
NATIVE BG04@3.5'	8/19/2024	3.5	7.18	0.169	0.157	<2.00
NATIVE BG04@7'	8/19/2024	7.0	7.43	0.157	0.0395	<2.00
NATIVE BG05@3.5'	8/19/2024	3.5	8.48	0.367	0.168	<2.00
NATIVE BG05@7'	8/19/2024	7.0	7.90	0.351	0.626	<2.00
Highest Background			8.48	0.367	0.626	

Notes:
(1) Standards for soil are taken from ECMC Table 915-1: Soil Suitability for Reclamation (Effective January 15, 2021)
ECMC = Colorado Energy and Carbon Management Commission
(<) = Analytical result is less than the indicated laboratory reporting limit
mmhos/cm = millimhos per centimeter
mg/L = milligrams per liter
pH = Potential of Hydrogen
SAR = Sodium Adsorption Ratio
EC = Electrical Conductivity
BOLD = Analytical result is in exceedance of ECMC Table 915-1: Soil Suitability for Reclamation Concentrations
Average background concentration
* Result exceeded the ECMC Table 915-1 standard, but was within site-specific background concentrations

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APPENDIX C

Decommissioning Form

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Wellhead, Flowline, and Facility Decommissioning Form

SITE NAME: North Platte K-O-13 HNC	**DATE: 8/13/2024 8/19/2024**	**REM. PROJECT #:**	**WEATHER: 68F, Sunny 77F, Sunny**
SITE DIRECTIONS: 70 Ranch	**CLIENT: Civitas**		
LEGALS AND LAT/LONG: 40.405000, -104.389880	**ENSOLUM PERSONNEL: Maxwell Buffy, Fatima Smith**		
SOIL TYPES: SP - Poorly Graded Sand	**SURFACE GRADIENT:**		
SURROUNDING LAND USE: Rangeland	**CROP:**		

SOIL SAMPLING

Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo? (Y/N)	USCS	Lab (Y/N)
8/13/2024 9:05	B01@7'	1.6	No Staining	No Odor	Y	SP	Y
8/13/2024 9:13	SEP01-INLET@7'	0.4	No Staining	No Odor	Y	SP	Y
8/13/2024 9:31	N01@6'	0.2	No Staining	No Odor	Y	SP	N
8/13/2024 9:35	S01@6'	0.0	No Staining	No Odor	Y	SP	N
8/13/2024 9:33	E01@6'	0.0	No Staining	No Odor	Y	SP	N
8/13/2024 9:29	W01@6'	0.0	No Staining	No Odor	Y	SP	N
8/13/2024 10:20	FL01@7'	0.0	No Staining	No Odor	Y	SP	Y
8/13/2024 9:56	FL02@7'	0.0	No Staining	No Odor	Y	SP	Y
8/19/2024 11:48	NATIVEBG01@3.5'	0.5	No Staining	No Odor	Y	SP	Y
8/19/2024 12:02	NATIVEBG01@7'	0.0	No Staining	No Odor	Y	SP	Y
8/19/2024 13:05	NATIVEBG02@3.5'	0.0	No Staining	No Odor	Y	SP	Y
8/19/2024 13:22	NATIVEBG02@7'	0.0	No Staining	No Odor	Y	SP	Y
8/19/2024 13:50	NATIVEBG03@3.5'	0.0	No Staining	No Odor	Y	SP	Y
8/19/2024 13:59	NATIVEBG03@7'	0.0	No Staining	No Odor	Y	SP	Y
8/19/2024 12:31	NATIVEBG04@3.5'	0.0	No Staining	No Odor	Y	SP	Y
8/19/2024 12:48	NATIVEBG04@7'	0.0	No Staining	No Odor	Y	SP	Y
8/19/2024 11:10	NATIVEBG05@3.5'	0.6	No Staining	No Odor	Y	SP	Y
8/19/2024 11:25	NATIVEBG05@7'	0.1	No Staining	No Odor	Y	SP	Y

GROUNDWATER SAMPLING

Date/Time	Groundwater Sample ID	Depth Collected	Turbid?	Sheen?	Odor?	Photo?	

FACILITY INFRASTRUCTURE

EQUIPMENT	Quantity
Above Ground Storage Tank (AST)	
Produced Water Vessel (PWV)	
Separator (SEP)	1
Emission Control Device (ECD)	
Dump Line (DL)	
Wellhead (WH)	1
Flowline (FL)	1
FL Method of Closure	Left in place
FL Footage Removed	
Footaged Abandoned in Place	
Other:	

Soil Loads Removed

IMPACTED SOIL IDENTIFIED? No

ESTIMATED VOLUME OF IMPACTS:

Date	Number	CY
Total Removed	0	0

Disposal Facility:

Groundwater Recovery

DATE GW ENCOUNTERED: N/A

DEPTH:

GROUNDWATER IN CONTACT WITH IMPACTED SOIL?

LNAPL OR SHEEN OBSERVED ON GW?

Date	BBLS
Total Removed	0

Disposal Facility:

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APPENDIX D

Photo Log

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Photographic Log
Operator: Bonanza Creek Energy Operating Company
Site Name: North Platte K-O-13 HNC

Photograph # 1 Date: 8/13/2024

Photograph # 2 Date: 8/13/2024

Photograph # 3 Date: 8/13/2024

Photograph # 4 Date: 8/13/2024

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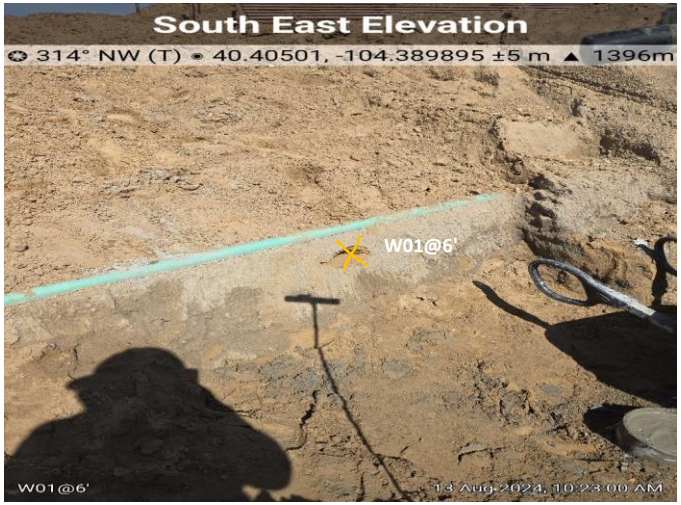
Photographic Log

Operator: Bonanza Creek Energy Operating Company

Site Name: North Platte K-O-13 HNC

Photograph # 5 Date: 8/13/2024

Photograph # 6 Date: 8/13/2024



Photograph # 7 Date: 8/13/2024

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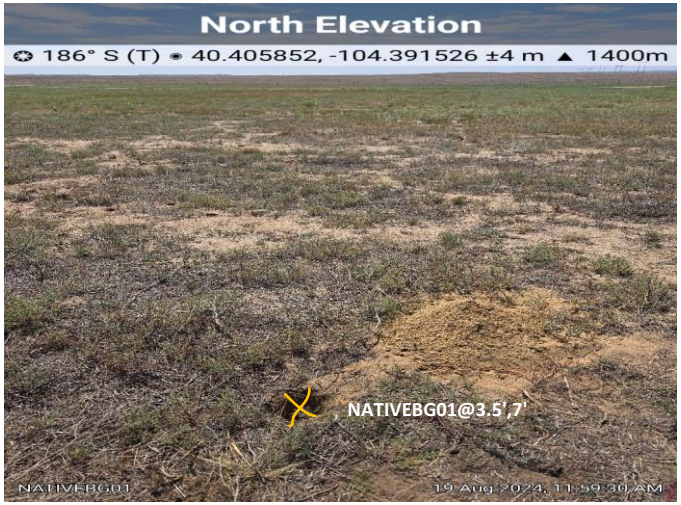
Photographic Log

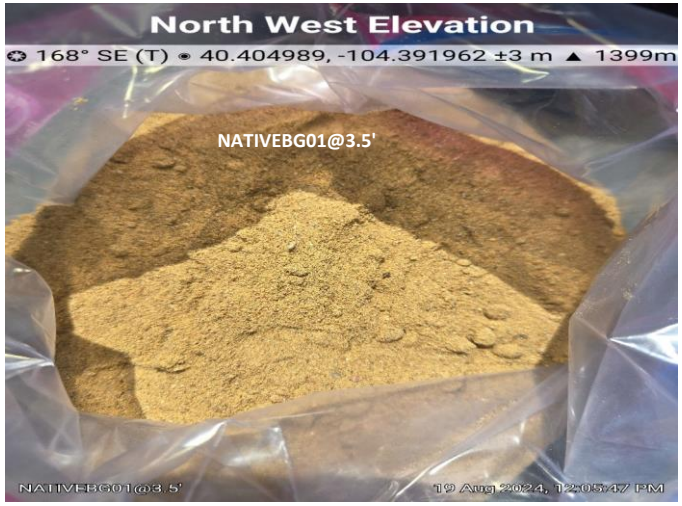
Operator: Bonanza Creek Energy Operating Company

Site Name: North Platte K-O-13 HNC



Photograph # 8 Date: 8/19/2024

Photograph # 9 Date: 8/19/2024



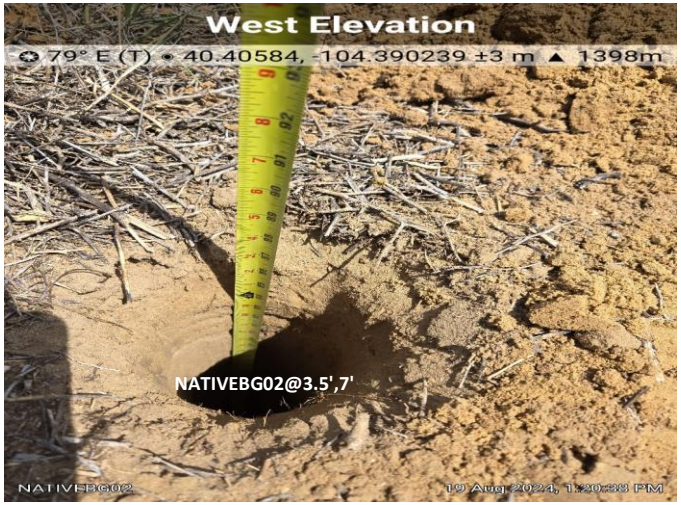
Photograph # 10 Date: 8/19/2024

Photograph # 11 Date: 8/19/2024

ENSOLUM

Photographic Log
Operator: Bonanza Creek Energy Operating Company
Site Name: North Platte K-O-13 HNC

Photograph # 12 Date: 8/19/2024



Photograph # 13 Date: 8/19/2024

Photograph # 14 Date: 8/19/2024

Photograph # 15 Date: 8/19/2024

ENSOLUM

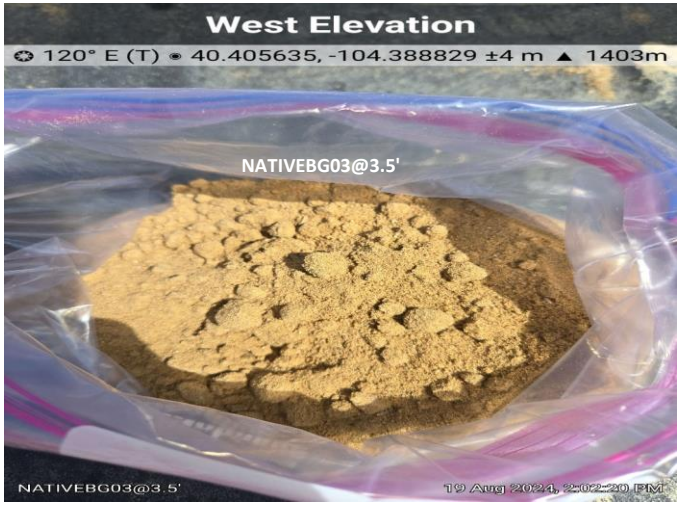
Photographic Log

Operator: Bonanza Creek Energy Operating Company

Site Name: North Platte K-O-13 HNC

Photograph # 16 Date: 8/19/2024

Photograph # 17 Date: 8/19/2024



Photograph # 18 Date: 8/19/2024

Photograph # 19 Date: 8/19/2024

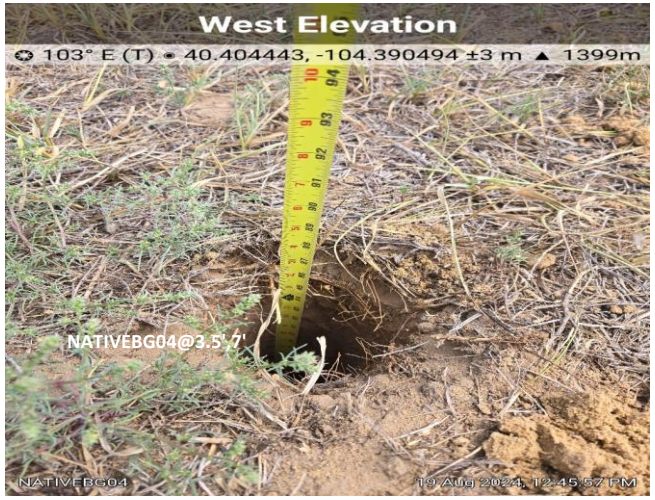
ENSOLUM

Photographic Log

Operator: Bonanza Creek Energy Operating Company

Site Name: North Platte K-O-13 HNC

Photograph # 20 Date: 8/19/2024



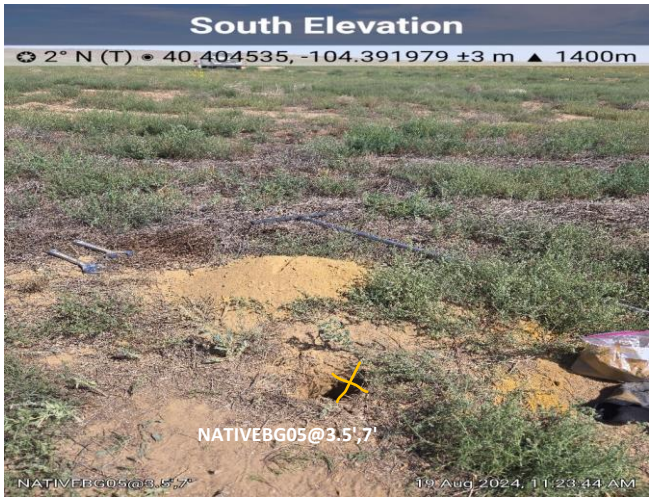
Photograph # 21 Date: 8/19/2024

Photograph # 22 Date: 8/19/2024

Photograph # 23 Date: 8/19/2024

ENSOLUM

Photographic Log
Operator: Bonanza Creek Energy Operating Company
Site Name: North Platte K-O-13 HNC



Photograph # 24 Date: 8/19/2024

Photograph # 25 Date: 8/19/2024

Photograph # 26 Date: 8/19/2024

Photograph # 27 Date: 8/19/2024

ENSOLUM

APPENDIX E

Laboratory Analytical Reports & Chain-of-Custody Documentation

ANALYTICAL REPORT

September 11, 2024

Revised Report

Civitas - CO

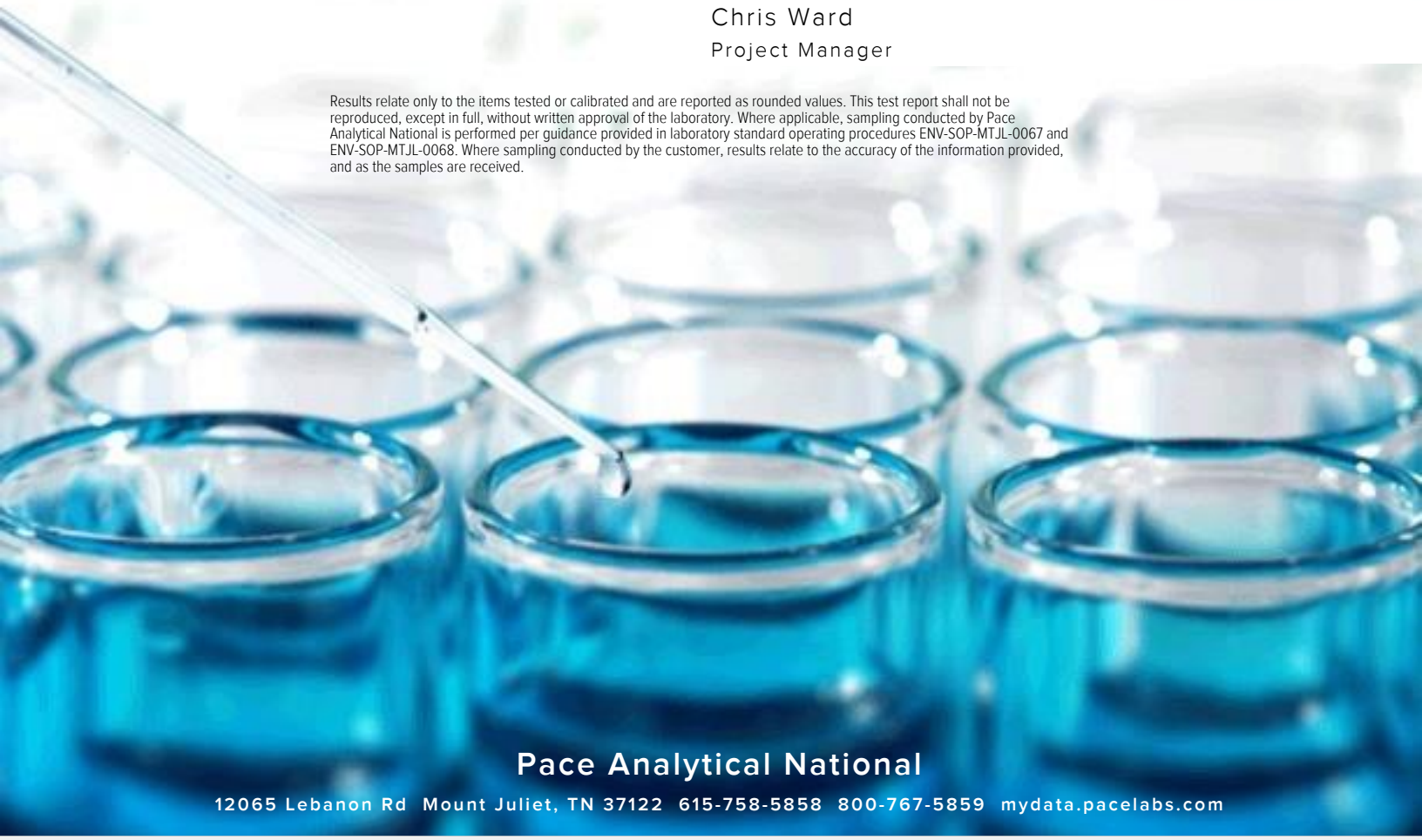
Sample Delivery Group:	L1767187
Samples Received:	08/14/2024
Project Number:	
Description:	North Platte K-0-13 HNC

Report To:

Jacob Evans
6855 W. 118th Ave
Broomfield, CO 80020

Entire Report Reviewed By:

Chris Ward
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

B01@7' L1767187-01 Solid

Collected by: Max Buffy | Collected date/time: 08/13/24 09:05 | Received date/time: 08/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2346281	1	08/21/24 01:33	08/21/24 01:33	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2344720	1	08/20/24 18:42	08/21/24 17:10	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2347254	1	08/21/24 09:24	08/21/24 10:22	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2347263	1	08/21/24 09:25	08/21/24 11:26	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2344342	1	08/17/24 07:47	08/17/24 21:09	MAP	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2346285	5	08/20/24 11:58	08/20/24 20:05	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2353834	5	08/31/24 01:08	09/02/24 16:55	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2345339	1	08/15/24 16:24	08/18/24 07:03	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2344797	1	08/15/24 16:24	08/16/24 21:12	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2347646	1	08/21/24 14:38	08/22/24 05:15	KKS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2347201	1	08/21/24 11:29	08/21/24 19:20	JCH	Mt. Juliet, TN

SEP01 INLET@7' L1767187-02 Solid

Collected by: Max Buffy | Collected date/time: 08/13/24 09:13 | Received date/time: 08/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2346281	1	08/21/24 01:35	08/21/24 01:35	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2344720	1	08/20/24 18:42	08/21/24 17:16	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2347254	1	08/21/24 09:24	08/21/24 10:22	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2347263	1	08/21/24 09:25	08/21/24 11:26	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2344342	1	08/17/24 07:47	08/17/24 21:11	MAP	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2346285	1	08/20/24 11:58	08/20/24 20:06	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2353834	5	08/31/24 01:08	09/02/24 16:58	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2345339	1	08/15/24 16:24	08/18/24 07:27	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2344797	1	08/15/24 16:24	08/16/24 21:31	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2347646	1	08/21/24 14:38	08/22/24 05:28	KKS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2347201	1	08/21/24 11:29	08/21/24 19:38	JCH	Mt. Juliet, TN

FL01@7' L1767187-03 Solid

Collected by: Max Buffy | Collected date/time: 08/13/24 10:20 | Received date/time: 08/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2346281	1	08/21/24 01:37	08/21/24 01:37	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2344720	1	08/20/24 18:42	08/21/24 17:22	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2347254	1	08/21/24 09:24	08/21/24 10:22	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2347263	1	08/21/24 09:25	08/21/24 11:26	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2344342	1	08/17/24 07:47	08/17/24 21:13	MAP	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2346285	5	08/20/24 11:58	08/20/24 20:08	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2353834	5	08/31/24 01:08	09/02/24 17:01	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2345339	1	08/15/24 16:24	08/18/24 07:51	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2344797	1	08/15/24 16:24	08/16/24 21:50	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2347646	1	08/21/24 14:38	08/22/24 05:42	KKS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2347201	1	08/21/24 11:29	08/21/24 19:56	JCH	Mt. Juliet, TN

FL02@7' L1767187-04 Solid

Collected by: Max Buffy | Collected date/time: 08/13/24 09:56 | Received date/time: 08/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2346281	1	08/21/24 01:39	08/21/24 01:39	DJS	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2344720	1	08/20/24 18:42	08/21/24 17:28	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2347254	1	08/21/24 09:24	08/21/24 10:22	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2347263	1	08/21/24 09:25	08/21/24 11:26	BJM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2344344	1	08/20/24 09:42	08/20/24 22:25	MAP	Mt. Juliet, TN

SAMPLE SUMMARY

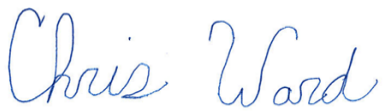
FL02@7' L1767187-04 Solid

Collected by: Max Buffy
Collected date/time: 08/13/24 09:56
Received date/time: 08/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2346285	1	08/20/24 11:58	08/20/24 20:10	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2353834	5	08/31/24 01:08	09/02/24 17:04	SJM	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2345339	1	08/15/24 16:24	08/18/24 08:15	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2344797	1	08/15/24 16:24	08/16/24 22:09	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2347646	1	08/21/24 14:38	08/22/24 05:55	KKS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2347201	1	08/21/24 11:29	08/21/24 20:13	JCH	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager

Report Revision History

Level II Report - Version 1: 08/26/24 10:21
Level II Report - Version 2: 09/06/24 13:57

Project Narrative

The requested project specific reporting limits may be less than laboratory standard quantitation limits (PQL) but will be greater than or equal to the laboratory method detection limits (MDL). It is noted that results reported below lab standard quantitation limits (PQLs) may result in false positive/false negative values that may require additional laboratory quality assurance review, if requested. Routine laboratory procedures do not initiate a data review process for detections below the laboratory's PQL unless requested by the client.

The requested project specific reporting limits may be less than laboratory standard quantitation limits (PQL) but will be greater than or equal to the laboratory method detection limits (MDL). It is noted that results reported below lab standard quantitation limits (PQLs) may result in false positive/false negative values that may require additional laboratory quality assurance review, if requested. Routine laboratory procedures do not initiate a data review process for detections below the laboratory's PQL unless requested by the client.

Report reissued for corrected sample ID

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	1.40		1	08/21/2024 01:33	WG2346281

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/21/2024 17:10	WG2344720

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.15	T8	1	08/21/2024 10:22	WG2347254

Sample Narrative:

L1767187-01 WG2347254: 8.15 at 20.5C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	236		10.0	1	08/21/2024 11:26	WG2347263

Sample Narrative:

L1767187-01 WG2347263: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.23	J	0.518	1	08/17/2024 21:09	WG2344342
Barium	34.0		0.400	1	08/17/2024 21:09	WG2344342
Cadmium	ND		0.200	1	08/17/2024 21:09	WG2344342
Copper	1.12	J	0.400	1	08/17/2024 21:09	WG2344342
Lead	3.17		0.208	1	08/17/2024 21:09	WG2344342
Nickel	2.09		0.400	1	08/17/2024 21:09	WG2344342
Selenium	ND		0.764	1	08/17/2024 21:09	WG2344342
Silver	ND		0.127	1	08/17/2024 21:09	WG2344342
Zinc	10.1		0.832	1	08/17/2024 21:09	WG2344342

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	5	08/20/2024 20:05	WG2346285

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.317	J	0.180	5	09/02/2024 16:55	WG2353834

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.500	1	08/18/2024 07:03	WG2345339
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*	*08/18/2024 07:03*	WG2345339

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00200	1	08/16/2024 21:12	WG2344797
Toluene	ND		0.00500	1	08/16/2024 21:12	WG2344797
Ethylbenzene	ND		0.00500	1	08/16/2024 21:12	WG2344797
Xylenes, Total	ND		0.0100	1	08/16/2024 21:12	WG2344797
1,2,4-Trimethylbenzene	ND		0.00500	1	08/16/2024 21:12	WG2344797
1,3,5-Trimethylbenzene	ND		0.00500	1	08/16/2024 21:12	WG2344797
(S) Toluene-d8	*99.4*			*75.0-131*	*08/16/2024 21:12*	WG2344797
(S) 4-Bromofluorobenzene	*99.8*			*67.0-138*	*08/16/2024 21:12*	WG2344797
(S) 1,2-Dichloroethane-d4	*98.1*			*70.0-130*	*08/16/2024 21:12*	WG2344797

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		50.0	1	08/22/2024 05:15	WG2347646
C28-C36 Motor Oil Range	ND		50.0	1	08/22/2024 05:15	WG2347646
(S) o-Terphenyl	*37.4*			*18.0-148*	*08/22/2024 05:15*	WG2347646

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00500	1	08/21/2024 19:20	WG2347201
Anthracene	ND		0.00500	1	08/21/2024 19:20	WG2347201
Benzo(a)anthracene	ND		0.00500	1	08/21/2024 19:20	WG2347201
Benzo(b)fluoranthene	ND		0.00500	1	08/21/2024 19:20	WG2347201
Benzo(k)fluoranthene	ND		0.00500	1	08/21/2024 19:20	WG2347201
Benzo(a)pyrene	ND		0.00500	1	08/21/2024 19:20	WG2347201
Chrysene	ND		0.00500	1	08/21/2024 19:20	WG2347201
Dibenz(a,h)anthracene	ND		0.00500	1	08/21/2024 19:20	WG2347201
Fluoranthene	ND		0.00500	1	08/21/2024 19:20	WG2347201
Fluorene	ND		0.00500	1	08/21/2024 19:20	WG2347201
Indeno(1,2,3-cd)pyrene	ND		0.00500	1	08/21/2024 19:20	WG2347201
1-Methylnaphthalene	ND		0.00500	1	08/21/2024 19:20	WG2347201
2-Methylnaphthalene	ND		0.00500	1	08/21/2024 19:20	WG2347201
Naphthalene	ND		0.00408	1	08/21/2024 19:20	WG2347201
Pyrene	ND		0.00500	1	08/21/2024 19:20	WG2347201
(S) p-Terphenyl-d14	*74.7*			*23.0-120*	*08/21/2024 19:20*	WG2347201
(S) Nitrobenzene-d5	*77.9*			*14.0-149*	*08/21/2024 19:20*	WG2347201
(S) 2-Fluorobiphenyl	*70.8*			*34.0-125*	*08/21/2024 19:20*	WG2347201

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.606		1	08/21/2024 01:35	WG2346281

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/21/2024 17:16	WG2344720

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.95	T8	1	08/21/2024 10:22	WG2347254

Sample Narrative:

L1767187-02 WG2347254: 7.95 at 21C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	311		10.0	1	08/21/2024 11:26	WG2347263

Sample Narrative:

L1767187-02 WG2347263: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.24	J	0.518	1	08/17/2024 21:11	WG2344342
Barium	26.9		0.400	1	08/17/2024 21:11	WG2344342
Cadmium	ND		0.200	1	08/17/2024 21:11	WG2344342
Copper	0.947	J	0.400	1	08/17/2024 21:11	WG2344342
Lead	3.20		0.208	1	08/17/2024 21:11	WG2344342
Nickel	2.19		0.400	1	08/17/2024 21:11	WG2344342
Selenium	ND		0.764	1	08/17/2024 21:11	WG2344342
Silver	ND		0.127	1	08/17/2024 21:11	WG2344342
Zinc	9.44		0.832	1	08/17/2024 21:11	WG2344342

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/20/2024 20:06	WG2346285

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.293	J	0.180	5	09/02/2024 16:58	WG2353834

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.500	1	08/18/2024 07:27	WG2345339
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*	*08/18/2024 07:27*	WG2345339

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00200	1	08/16/2024 21:31	WG2344797
Toluene	ND		0.00500	1	08/16/2024 21:31	WG2344797
Ethylbenzene	ND		0.00500	1	08/16/2024 21:31	WG2344797
Xylenes, Total	ND		0.0100	1	08/16/2024 21:31	WG2344797
1,2,4-Trimethylbenzene	ND		0.00500	1	08/16/2024 21:31	WG2344797
1,3,5-Trimethylbenzene	ND		0.00500	1	08/16/2024 21:31	WG2344797
(S) Toluene-d8	*99.4*			*75.0-131*	*08/16/2024 21:31*	WG2344797
(S) 4-Bromofluorobenzene	*104*			*67.0-138*	*08/16/2024 21:31*	WG2344797
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*	*08/16/2024 21:31*	WG2344797

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		50.0	1	08/22/2024 05:28	WG2347646
C28-C36 Motor Oil Range	ND		50.0	1	08/22/2024 05:28	WG2347646
(S) o-Terphenyl	*93.1*			*18.0-148*	*08/22/2024 05:28*	WG2347646

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00500	1	08/21/2024 19:38	WG2347201
Anthracene	ND		0.00500	1	08/21/2024 19:38	WG2347201
Benzo(a)anthracene	ND		0.00500	1	08/21/2024 19:38	WG2347201
Benzo(b)fluoranthene	ND		0.00500	1	08/21/2024 19:38	WG2347201
Benzo(k)fluoranthene	ND		0.00500	1	08/21/2024 19:38	WG2347201
Benzo(a)pyrene	ND		0.00500	1	08/21/2024 19:38	WG2347201
Chrysene	ND		0.00500	1	08/21/2024 19:38	WG2347201
Dibenz(a,h)anthracene	ND		0.00500	1	08/21/2024 19:38	WG2347201
Fluoranthene	ND		0.00500	1	08/21/2024 19:38	WG2347201
Fluorene	ND		0.00500	1	08/21/2024 19:38	WG2347201
Indeno(1,2,3-cd)pyrene	ND		0.00500	1	08/21/2024 19:38	WG2347201
1-Methylnaphthalene	ND		0.00500	1	08/21/2024 19:38	WG2347201
2-Methylnaphthalene	ND		0.00500	1	08/21/2024 19:38	WG2347201
Naphthalene	ND		0.00408	1	08/21/2024 19:38	WG2347201
Pyrene	ND		0.00500	1	08/21/2024 19:38	WG2347201
(S) p-Terphenyl-d14	*81.6*			*23.0-120*	*08/21/2024 19:38*	WG2347201
(S) Nitrobenzene-d5	*78.0*			*14.0-149*	*08/21/2024 19:38*	WG2347201
(S) 2-Fluorobiphenyl	*73.7*			*34.0-125*	*08/21/2024 19:38*	WG2347201

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.230		1	08/21/2024 01:37	WG2346281

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/21/2024 17:22	WG2344720

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.75	T8	1	08/21/2024 10:22	WG2347254

Sample Narrative:

L1767187-03 WG2347254: 7.75 at 20.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	128		10.0	1	08/21/2024 11:26	WG2347263

Sample Narrative:

L1767187-03 WG2347263: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.61	J	0.518	1	08/17/2024 21:13	WG2344342
Barium	42.4		0.400	1	08/17/2024 21:13	WG2344342
Cadmium	ND		0.200	1	08/17/2024 21:13	WG2344342
Copper	0.991	J	0.400	1	08/17/2024 21:13	WG2344342
Lead	3.06		0.208	1	08/17/2024 21:13	WG2344342
Nickel	2.12		0.400	1	08/17/2024 21:13	WG2344342
Selenium	ND		0.764	1	08/17/2024 21:13	WG2344342
Silver	ND		0.127	1	08/17/2024 21:13	WG2344342
Zinc	9.51		0.832	1	08/17/2024 21:13	WG2344342

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	5	08/20/2024 20:08	WG2346285

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.312	J	0.180	5	09/02/2024 17:01	WG2353834

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.500	1	08/18/2024 07:51	WG2345339
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*	*08/18/2024 07:51*	WG2345339

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00200	1	08/16/2024 21:50	WG2344797
Toluene	ND		0.00500	1	08/16/2024 21:50	WG2344797
Ethylbenzene	ND		0.00500	1	08/16/2024 21:50	WG2344797
Xylenes, Total	ND		0.0100	1	08/16/2024 21:50	WG2344797
1,2,4-Trimethylbenzene	ND		0.00500	1	08/16/2024 21:50	WG2344797
1,3,5-Trimethylbenzene	ND		0.00500	1	08/16/2024 21:50	WG2344797
(S) Toluene-d8	*102*			*75.0-131*	*08/16/2024 21:50*	WG2344797
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*	*08/16/2024 21:50*	WG2344797
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*	*08/16/2024 21:50*	WG2344797

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		50.0	1	08/22/2024 05:42	WG2347646
C28-C36 Motor Oil Range	ND		50.0	1	08/22/2024 05:42	WG2347646
(S) o-Terphenyl	*61.1*			*18.0-148*	*08/22/2024 05:42*	WG2347646

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00500	1	08/21/2024 19:56	WG2347201
Anthracene	ND		0.00500	1	08/21/2024 19:56	WG2347201
Benzo(a)anthracene	ND		0.00500	1	08/21/2024 19:56	WG2347201
Benzo(b)fluoranthene	ND		0.00500	1	08/21/2024 19:56	WG2347201
Benzo(k)fluoranthene	ND		0.00500	1	08/21/2024 19:56	WG2347201
Benzo(a)pyrene	ND		0.00500	1	08/21/2024 19:56	WG2347201
Chrysene	ND		0.00500	1	08/21/2024 19:56	WG2347201
Dibenz(a,h)anthracene	ND		0.00500	1	08/21/2024 19:56	WG2347201
Fluoranthene	ND		0.00500	1	08/21/2024 19:56	WG2347201
Fluorene	ND		0.00500	1	08/21/2024 19:56	WG2347201
Indeno(1,2,3-cd)pyrene	ND		0.00500	1	08/21/2024 19:56	WG2347201
1-Methylnaphthalene	ND		0.00500	1	08/21/2024 19:56	WG2347201
2-Methylnaphthalene	ND		0.00500	1	08/21/2024 19:56	WG2347201
Naphthalene	ND		0.00408	1	08/21/2024 19:56	WG2347201
Pyrene	ND		0.00500	1	08/21/2024 19:56	WG2347201
(S) p-Terphenyl-d14	*76.4*			*23.0-120*	*08/21/2024 19:56*	WG2347201
(S) Nitrobenzene-d5	*82.9*			*14.0-149*	*08/21/2024 19:56*	WG2347201
(S) 2-Fluorobiphenyl	*74.0*			*34.0-125*	*08/21/2024 19:56*	WG2347201

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.595		1	08/21/2024 01:39	WG2346281

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/21/2024 17:28	WG2344720

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.08	T8	1	08/21/2024 10:22	WG2347254

Sample Narrative:

L1767187-04 WG2347254: 8.08 at 20.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	315		10.0	1	08/21/2024 11:26	WG2347263

Sample Narrative:

L1767187-04 WG2347263: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.65	J	0.518	1	08/20/2024 22:25	WG2344344
Barium	28.5		0.400	1	08/20/2024 22:25	WG2344344
Cadmium	ND		0.200	1	08/20/2024 22:25	WG2344344
Copper	1.53	J	0.400	1	08/20/2024 22:25	WG2344344
Lead	4.19		0.208	1	08/20/2024 22:25	WG2344344
Nickel	2.37		0.400	1	08/20/2024 22:25	WG2344344
Selenium	ND		0.764	1	08/20/2024 22:25	WG2344344
Silver	ND		0.127	1	08/20/2024 22:25	WG2344344
Zinc	10.5		0.832	1	08/20/2024 22:25	WG2344344

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/20/2024 20:10	WG2346285

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.360	J	0.180	5	09/02/2024 17:04	WG2353834

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		0.500	1	08/18/2024 08:15	WG2345339
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*	*08/18/2024 08:15*	WG2345339

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00200	1	08/16/2024 22:09	WG2344797
Toluene	ND		0.00500	1	08/16/2024 22:09	WG2344797
Ethylbenzene	ND		0.00500	1	08/16/2024 22:09	WG2344797
Xylenes, Total	ND		0.0100	1	08/16/2024 22:09	WG2344797
1,2,4-Trimethylbenzene	ND		0.00500	1	08/16/2024 22:09	WG2344797
1,3,5-Trimethylbenzene	ND		0.00500	1	08/16/2024 22:09	WG2344797
(S) Toluene-d8	*101*			*75.0-131*	*08/16/2024 22:09*	WG2344797
(S) 4-Bromofluorobenzene	*97.6*			*67.0-138*	*08/16/2024 22:09*	WG2344797
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*	*08/16/2024 22:09*	WG2344797

Semi-Volatile Organic Compounds (GC) by Method 8015M

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		50.0	1	08/22/2024 05:55	WG2347646
C28-C36 Motor Oil Range	ND		50.0	1	08/22/2024 05:55	WG2347646
(S) o-Terphenyl	*68.7*			*18.0-148*	*08/22/2024 05:55*	WG2347646

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00500	1	08/21/2024 20:13	WG2347201
Anthracene	ND		0.00500	1	08/21/2024 20:13	WG2347201
Benzo(a)anthracene	ND		0.00500	1	08/21/2024 20:13	WG2347201
Benzo(b)fluoranthene	ND		0.00500	1	08/21/2024 20:13	WG2347201
Benzo(k)fluoranthene	ND		0.00500	1	08/21/2024 20:13	WG2347201
Benzo(a)pyrene	ND		0.00500	1	08/21/2024 20:13	WG2347201
Chrysene	ND		0.00500	1	08/21/2024 20:13	WG2347201
Dibenz(a,h)anthracene	ND		0.00500	1	08/21/2024 20:13	WG2347201
Fluoranthene	ND		0.00500	1	08/21/2024 20:13	WG2347201
Fluorene	ND		0.00500	1	08/21/2024 20:13	WG2347201
Indeno(1,2,3-cd)pyrene	ND		0.00500	1	08/21/2024 20:13	WG2347201
1-Methylnaphthalene	ND		0.00500	1	08/21/2024 20:13	WG2347201
2-Methylnaphthalene	ND		0.00500	1	08/21/2024 20:13	WG2347201
Naphthalene	ND		0.00408	1	08/21/2024 20:13	WG2347201
Pyrene	ND		0.00500	1	08/21/2024 20:13	WG2347201
(S) p-Terphenyl-d14	*73.5*			*23.0-120*	*08/21/2024 20:13*	WG2347201
(S) Nitrobenzene-d5	*77.7*			*14.0-149*	*08/21/2024 20:13*	WG2347201
(S) 2-Fluorobiphenyl	*67.0*			*34.0-125*	*08/21/2024 20:13*	WG2347201

QUALITY CONTROL SUMMARY

L1767187-01,02,03,04

Method Blank (MB)

(MB) R4109974-1 08/21/24 15:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexavalent Chromium	ND		0.255	1.00

L1766912-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1766912-03 08/21/24 16:08 • (DUP) R4109974-3 08/21/24 16:14

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	ND	ND	1	200	P1	20

L1767330-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1767330-05 08/21/24 18:36 • (DUP) R4109974-8 08/21/24 18:43

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4109974-2 08/21/24 15:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	9.63	96.3	80.0-120	

L1767330-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1767330-02 08/21/24 17:41 • (MS) R4109974-4 08/21/24 17:47 • (MSD) R4109974-5 08/21/24 17:53

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	ND	16.4	17.7	82.0	88.6	1	75.0-125			7.80	20

L1767330-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1767330-02 08/21/24 17:41 • (MS) R4109974-6 08/21/24 18:12

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	633	ND	501	79.2	50	75.0-125	

L1765281-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1765281-05 08/21/24 10:22 • (DUP) R4109716-2 08/21/24 10:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.82	7.85	1	0.383		1

Sample Narrative:

OS: 7.82 at 21.3C

DUP: 7.85 at 21.3C

L1767334-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1767334-02 08/21/24 10:22 • (DUP) R4109716-3 08/21/24 10:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.02	8.01	1	0.125		1

Sample Narrative:

OS: 8.02 at 20.4C

DUP: 8.01 at 20.8C

Laboratory Control Sample (LCS)

(LCS) R4109716-1 08/21/24 10:22

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.01 at 21.1C

Method Blank (MB)

(MB) R4109783-1 08/21/24 11:26

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	ND		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1767169-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1767169-01 08/21/24 11:26 • (DUP) R4109783-3 08/21/24 11:26

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	23900	23900	1	0.0419		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1767359-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1767359-01 08/21/24 11:26 • (DUP) R4109783-4 08/21/24 11:26

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	842	843	1	0.119		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4109783-2 08/21/24 11:26

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	758	103	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4108275-1 08/17/24 20:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	ND		0.518	2.00
Barium	ND		0.0852	0.500
Cadmium	0.0530	J	0.0471	0.500
Copper	ND		0.400	2.00
Lead	ND		0.208	0.500
Nickel	ND		0.132	2.00
Selenium	ND		0.764	2.00
Silver	ND		0.127	1.00
Zinc	ND		0.832	5.00

Laboratory Control Sample (LCS)

(LCS) R4108275-2 08/17/24 20:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	104	104	80.0-120	
Barium	100	107	107	80.0-120	
Cadmium	100	104	104	80.0-120	
Copper	100	103	103	80.0-120	
Lead	100	104	104	80.0-120	
Nickel	100	102	102	80.0-120	
Selenium	100	99.6	99.6	80.0-120	
Silver	20.0	22.0	110	80.0-120	
Zinc	100	104	104	80.0-120	

L1767780-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1767780-02 08/17/24 20:33 • (MS) R4108275-5 08/17/24 20:38 • (MSD) R4108275-6 08/17/24 20:40

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	2.94	71.6	71.6	68.6	68.7	1	75.0-125	J6	J6	0.0886	20
Barium	100	105	187	181	82.1	76.2	1	75.0-125			3.26	20
Cadmium	100	ND	70.7	72.4	70.5	72.2	1	75.0-125	J6	J6	2.38	20
Copper	100	5.56	76.7	75.8	71.2	70.2	1	75.0-125	J6	J6	1.26	20
Lead	100	6.57	77.0	78.1	70.4	71.5	1	75.0-125	J6	J6	1.42	20
Nickel	100	12.3	81.1	80.7	68.7	68.4	1	75.0-125	J6	J6	0.448	20
Selenium	100	ND	66.9	66.6	66.9	66.6	1	75.0-125	J6	J6	0.476	20
Silver	20.0	ND	15.3	15.4	76.5	76.9	1	75.0-125			0.568	20
Zinc	100	45.5	113	112	67.7	66.3	1	75.0-125	J6	J6	1.28	20

Method Blank (MB)

(MB) R4109468-1 08/20/24 22:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	ND		0.518	2.00
Barium	ND		0.0852	0.500
Cadmium	ND		0.0471	0.500
Copper	ND		0.400	2.00
Lead	ND		0.208	0.500
Nickel	ND		0.132	2.00
Selenium	ND		0.764	2.00
Silver	ND		0.127	1.00
Zinc	ND		0.832	5.00

Laboratory Control Sample (LCS)

(LCS) R4109468-2 08/20/24 22:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	87.1	87.1	80.0-120	
Barium	100	89.7	89.7	80.0-120	
Cadmium	100	88.4	88.4	80.0-120	
Copper	100	90.5	90.5	80.0-120	
Lead	100	87.8	87.8	80.0-120	
Nickel	100	86.2	86.2	80.0-120	
Selenium	100	91.0	91.0	80.0-120	
Silver	20.0	18.3	91.7	80.0-120	
Zinc	100	88.1	88.1	80.0-120	

L1767334-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1767334-03 08/20/24 22:17 • (MS) R4109468-5 08/20/24 22:22 • (MSD) R4109468-6 08/20/24 22:24

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	3.00	81.4	88.0	78.4	85.0	1	75.0-125			7.73	20
Barium	100	146	189	879	43.3	733	1	75.0-125	J6	J3 J5	129	20
Cadmium	100	ND	77.0	83.4	76.8	83.2	1	75.0-125			7.98	20
Copper	100	8.67	88.5	96.2	79.8	87.5	1	75.0-125			8.35	20
Lead	100	16.5	97.5	110	81.0	93.4	1	75.0-125			12.0	20
Nickel	100	10.2	87.1	93.0	76.9	82.9	1	75.0-125			6.62	20
Selenium	100	1.64	82.6	89.5	81.0	87.9	1	75.0-125			8.00	20
Silver	20.0	ND	16.0	17.3	79.8	86.6	1	75.0-125			8.18	20
Zinc	100	70.0	123	134	52.8	64.2	1	75.0-125	J6	J6	8.94	20

Method Blank (MB)

(MB) R4109438-1 08/20/24 19:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	ND		0.0167	0.200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4109438-2 08/20/24 19:58 • (LCSD) R4109438-3 08/20/24 20:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	1.11	1.08	111	108	80.0-120			2.80	20

Method Blank (MB)

(MB) R4114661-1 09/02/24 15:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Selenium	ND		0.180	2.50

Laboratory Control Sample (LCS)

(LCS) R4114661-2 09/02/24 15:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Selenium	100	93.2	93.2	80.0-120	

L1766240-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1766240-07 09/02/24 16:02 • (MS) R4114661-5 09/02/24 16:12 • (MSD) R4114661-6 09/02/24 16:15

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Selenium	100	0.563	92.0	95.1	91.5	94.5	5	75.0-125			3.24	20

Method Blank (MB)

(MB) R4109309-3 08/18/24 04:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0282	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4109309-1 08/18/24 01:59 • (LCSD) R4109309-2 08/18/24 03:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.00	5.78	5.75	116	115	72.0-127			0.520	20
(S) a,a,a-Trifluorotoluene(FID)				*110*	*109*	*77.0-120*				

Method Blank (MB)

(MB) R4109006-2 08/16/24 17:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	ND		0.000467	0.00100
Toluene	ND		0.00130	0.00500
Ethylbenzene	ND		0.000737	0.00250
Xylenes, Total	ND		0.000880	0.00650
1,2,4-Trimethylbenzene	ND		0.00158	0.00500
1,3,5-Trimethylbenzene	ND		0.00200	0.00500
(S) Toluene-d8	*99.4*			*75.0-131*
(S) 4-Bromofluorobenzene	*103*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*98.9*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R4109006-1 08/16/24 16:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.131	105	70.0-123	
Toluene	0.125	0.128	102	75.0-121	
Ethylbenzene	0.125	0.126	101	74.0-126	
Xylenes, Total	0.375	0.385	103	72.0-127	
1,2,4-Trimethylbenzene	0.125	0.121	96.8	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.121	96.8	73.0-127	
(S) Toluene-d8			*97.2*	*75.0-131*	
(S) 4-Bromofluorobenzene			*103*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*106*	*70.0-130*	

Method Blank (MB)

(MB) R4110253-1 08/22/24 04:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	ND		1.61	4.00
C28-C36 Motor Oil Range	ND		0.274	4.00
(S) o-Terphenyl	*44.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R4110253-2 08/22/24 05:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	29.8	59.6	50.0-150	
(S) o-Terphenyl			*52.6*	*18.0-148*	

L1767353-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1767353-02 08/22/24 05:02 • (MS) R4110253-3 08/22/24 05:15 • (MSD) R4110253-4 08/22/24 05:28

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	48.5	ND	ND	ND	38.5	53.0	1	50.0-150	J6	J3	25.4	20
(S) o-Terphenyl					*45.7*	*52.9*		*18.0-148*				

Method Blank (MB)

(MB) R4110141-2 08/21/24 18:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	ND		0.00209	0.00600
Anthracene	ND		0.00230	0.00600
Benzo(a)anthracene	ND		0.00173	0.00600
Benzo(b)fluoranthene	ND		0.00153	0.00600
Benzo(k)fluoranthene	ND		0.00215	0.00600
Benzo(a)pyrene	ND		0.00179	0.00600
Chrysene	ND		0.00232	0.00600
Dibenz(a,h)anthracene	ND		0.00172	0.00600
Fluoranthene	ND		0.00227	0.00600
Fluorene	ND		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	ND		0.00181	0.00600
1-Methylnaphthalene	ND		0.00449	0.0200
2-Methylnaphthalene	ND		0.00427	0.0200
Naphthalene	ND		0.00408	0.0200
Pyrene	ND		0.00200	0.00600
(S) p-Terphenyl-d14	*92.3*			*23.0-120*
(S) Nitrobenzene-d5	*97.6*			*14.0-149*
(S) 2-Fluorobiphenyl	*80.1*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R4110141-1 08/21/24 18:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0691	86.4	50.0-120	
Anthracene	0.0800	0.0716	89.5	50.0-126	
Benzo(a)anthracene	0.0800	0.0659	82.4	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0699	87.4	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0633	79.1	49.0-125	
Benzo(a)pyrene	0.0800	0.0678	84.8	42.0-120	
Chrysene	0.0800	0.0720	90.0	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0689	86.1	47.0-125	
Fluoranthene	0.0800	0.0788	98.5	49.0-129	
Fluorene	0.0800	0.0718	89.8	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0660	82.5	46.0-125	
1-Methylnaphthalene	0.0800	0.0692	86.5	51.0-121	
2-Methylnaphthalene	0.0800	0.0656	82.0	50.0-120	
Naphthalene	0.0800	0.0694	86.8	50.0-120	
Pyrene	0.0800	0.0702	87.8	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R4110141-1 08/21/24 18:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			*85.9*	*23.0-120*	
(S) Nitrobenzene-d5			*98.2*	*14.0-149*	
(S) 2-Fluorobiphenyl			*82.7*	*34.0-125*	

L1767353-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1767353-01 08/22/24 01:46 • (MS) R4110141-3 08/22/24 02:04 • (MSD) R4110141-4 08/22/24 02:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0800	ND	0.0610	0.0601	76.3	75.1	1	14.0-127			1.49	27
Anthracene	0.0800	ND	0.0611	0.0619	76.4	77.4	1	10.0-145			1.30	30
Benzo(a)anthracene	0.0800	ND	0.0605	0.0590	75.6	73.8	1	10.0-139			2.51	30
Benzo(b)fluoranthene	0.0800	ND	0.0603	0.0592	75.4	74.0	1	10.0-140			1.84	36
Benzo(k)fluoranthene	0.0800	ND	0.0588	0.0571	73.5	71.4	1	10.0-137			2.93	31
Benzo(a)pyrene	0.0800	ND	0.0624	0.0616	78.0	77.0	1	10.0-141			1.29	31
Chrysene	0.0800	ND	0.0643	0.0631	80.4	78.9	1	10.0-145			1.88	30
Dibenz(a,h)anthracene	0.0800	ND	0.0613	0.0617	76.6	77.1	1	10.0-132			0.650	31
Fluoranthene	0.0800	ND	0.0708	0.0694	88.5	86.8	1	10.0-153			2.00	33
Fluorene	0.0800	ND	0.0626	0.0616	78.3	77.0	1	11.0-130			1.61	29
Indeno(1,2,3-cd)pyrene	0.0800	ND	0.0610	0.0586	76.3	73.3	1	10.0-137			4.01	32
1-Methylnaphthalene	0.0800	ND	0.0619	0.0647	77.4	80.9	1	10.0-142			4.42	28
2-Methylnaphthalene	0.0800	ND	0.0606	0.0610	75.8	76.3	1	10.0-137			0.658	28
Naphthalene	0.0800	ND	0.0618	0.0620	77.3	77.5	1	10.0-135			0.323	27
Pyrene	0.0800	ND	0.0586	0.0594	73.3	74.3	1	10.0-148			1.36	35
(S) p-Terphenyl-d14					*75.3*	*77.0*		*23.0-120*				
(S) Nitrobenzene-d5					*85.7*	*91.2*		*14.0-149*				
(S) 2-Fluorobiphenyl					*73.6*	*72.9*		*34.0-125*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

AFE: 24295

Company Name/Address:	Billing Information:	Pres Chk
Civitas - CO 6855 W 118th Ave Broomfield, CO 80020	Accounts Payable 650 Southgate Dr. Windsor, CO 80550 jevans@civiresources.com	

Report to: ~~Costin McQueen~~ Jacob Evans, Branden Ferguson

Email To: bferguson@civiresources.com, tlyon@ensolum.com, bsulzberger@ensolum.com

Project Description: North Platte K-0-13 HNC

City/State Collected: CO

Please Circle: PT (MT) CT ET

Phone: 970-509-0947

Client Project #:

Lab Project #:

Collected by (print): Max Buffy

Site/Facility ID #:

P.O. #:

Collected by (signature): M. Buffy

Quote #:

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: Standard TAT

Analysis / Container / Preservative: Full table 915

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Full table 915	Remarks	Sample # (lab only)
Bo1@7'	G	SS	7	8/13/24	0905	4	X		-01
SeptInlet@7'	↓	↓	↓	↓	0913	↓	X		-02
FL01@7'	↓	↓	↓	↓	1020	↓	X		-03
FL02@7'	↓	↓	↓	↓	0956	↓	X		-04

Chain of Custody Page 1 of 1

Pace® PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

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

SDG # L1767167

E143

Acctnum:
Template:
Prelogin:
PM:
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via: __ UPS __ FedEx __ Courier ______

Tracking # 4047 5439 9098

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	
M. Buffy	8/13/24	1525	Gabe Contino	Trip Blank Received: Yes / (No) HCL / MeoH TBR
Gabe Contino	8/13/24	1800	FedEx	Temp: EDA 8 °C 1.2+0.3=1.5 Bottles Received: 16
			Received for lab by: (Signature) Eri [illegible] 17	Date: 8-14-24 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

ANALYTICAL REPORT

September 11, 2024

Revised Report

Civitas - CO

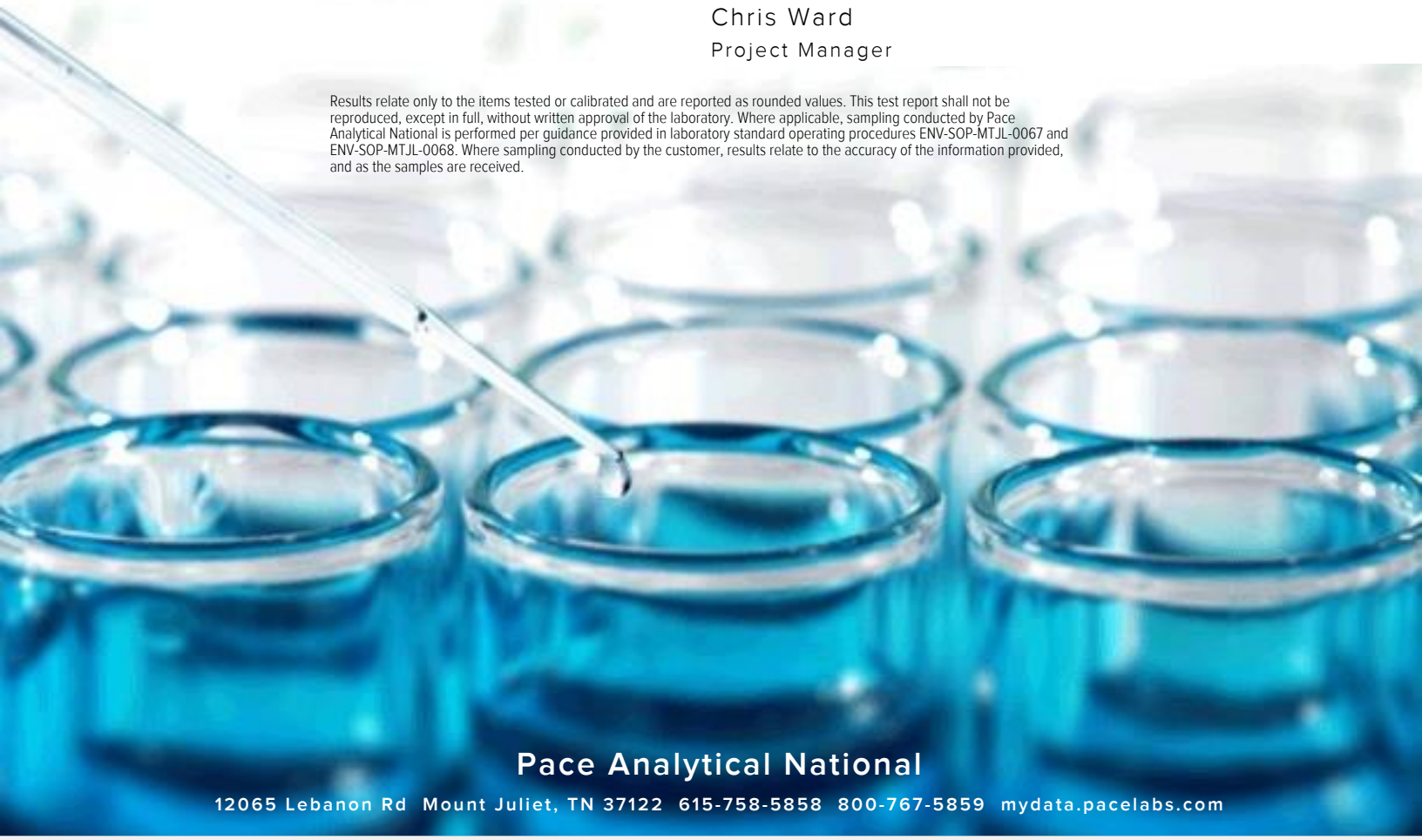
Sample Delivery Group:	L1769244
Samples Received:	08/20/2024
Project Number:	
Description:	North Platte K-0-13 HNC

Report To:

Jacob Evans
6855 W. 118th Ave
Broomfield, CO 80020

Entire Report Reviewed By:

Chris Ward
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

NATIVE BG01 @ 3.5' L1769244-01 Solid

Collected by: Max Buffy | Collected date/time: 08/19/24 11:48 | Received date/time: 08/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2350400	1	08/26/24 21:50	08/26/24 21:50	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2349413	1	08/27/24 13:33	08/28/24 12:06	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2351022	1	08/27/24 09:26	08/27/24 10:58	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2351015	1	08/27/24 09:24	08/27/24 14:41	KA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2349807	1	08/30/24 09:02	08/30/24 15:59	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2350409	1	08/27/24 13:45	08/27/24 18:26	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2356695	5	09/06/24 07:40	09/06/24 16:28	UNP	Mt. Juliet, TN

NATIVE BG01 @ 7' L1769244-02 Solid

Collected by: Max Buffy | Collected date/time: 08/19/24 12:02 | Received date/time: 08/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2350400	1	08/26/24 21:52	08/26/24 21:52	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2349413	1	08/27/24 13:33	08/28/24 12:16	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2351019	1	08/27/24 09:37	08/27/24 10:46	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2351005	1	08/27/24 09:37	08/27/24 14:56	KA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2349807	1	08/30/24 09:02	08/30/24 16:01	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2350409	1	08/27/24 13:45	08/27/24 18:28	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2356695	5	09/06/24 07:40	09/06/24 16:32	UNP	Mt. Juliet, TN

NATIVE BG02 @ 3.5' L1769244-03 Solid

Collected by: Max Buffy | Collected date/time: 08/19/24 13:05 | Received date/time: 08/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2350400	1	08/26/24 21:53	08/26/24 21:53	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2349413	1	08/27/24 13:33	08/28/24 12:27	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2351019	1	08/27/24 09:37	08/27/24 10:46	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2351005	1	08/27/24 09:37	08/27/24 14:56	KA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2349807	1	08/30/24 09:02	08/30/24 16:03	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2350409	1	08/27/24 13:45	08/27/24 17:58	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2356695	5	09/06/24 07:40	09/06/24 16:35	UNP	Mt. Juliet, TN

NATIVE BG02 @ 7' L1769244-04 Solid

Collected by: Max Buffy | Collected date/time: 08/19/24 13:22 | Received date/time: 08/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2350400	1	08/26/24 21:58	08/26/24 21:58	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2349413	1	08/27/24 13:33	08/28/24 12:48	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2351019	1	08/27/24 09:37	08/27/24 10:46	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2351005	1	08/27/24 09:37	08/27/24 14:56	KA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2349807	1	08/30/24 09:02	08/30/24 16:04	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2350409	1	08/27/24 13:45	08/27/24 18:00	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2356695	5	09/06/24 07:40	09/06/24 17:05	UNP	Mt. Juliet, TN

NATIVE BG03 @ 3.5' L1769244-05 Solid

Collected by: Max Buffy | Collected date/time: 08/19/24 13:50 | Received date/time: 08/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2350400	1	08/26/24 22:00	08/26/24 22:00	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2349413	1	08/27/24 13:33	08/28/24 12:58	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2351022	1	08/27/24 09:26	08/27/24 10:58	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2351015	1	08/27/24 09:24	08/27/24 14:41	KA	Mt. Juliet, TN

NATIVE BG03 @ 3.5' L1769244-05 Solid

Collected by: Max Buffy | Collected date/time: 08/19/24 13:50 | Received date/time: 08/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG2349807	1	08/30/24 09:02	08/30/24 16:06	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2350409	1	08/27/24 13:45	08/27/24 18:02	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2356695	5	09/06/24 07:40	09/06/24 17:09	UNP	Mt. Juliet, TN

NATIVE BG03 @ 7' L1769244-06 Solid

Collected by: Max Buffy | Collected date/time: 08/19/24 13:59 | Received date/time: 08/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2350400	1	08/26/24 22:02	08/26/24 22:02	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2349413	1	08/27/24 13:33	08/28/24 13:09	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2351022	1	08/27/24 09:26	08/27/24 10:58	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2351015	1	08/27/24 09:24	08/27/24 14:41	KA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2349807	1	08/30/24 09:02	08/30/24 16:08	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2350409	1	08/27/24 13:45	08/27/24 18:04	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2356695	5	09/06/24 07:40	09/06/24 17:12	UNP	Mt. Juliet, TN

NATIVE BG04 @ 3.5' L1769244-07 Solid

Collected by: Max Buffy | Collected date/time: 08/19/24 12:31 | Received date/time: 08/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2350400	1	08/26/24 22:03	08/26/24 22:03	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2349413	1	08/27/24 13:33	08/28/24 13:30	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2351022	1	08/27/24 09:26	08/27/24 10:58	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2351015	1	08/27/24 09:24	08/27/24 14:41	KA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2349807	1	08/30/24 09:02	08/30/24 16:09	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2350409	1	08/27/24 13:45	08/27/24 18:05	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2356695	5	09/06/24 07:40	09/06/24 17:15	UNP	Mt. Juliet, TN

NATIVE BG04 @ 7' L1769244-08 Solid

Collected by: Max Buffy | Collected date/time: 08/19/24 12:48 | Received date/time: 08/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2350400	1	08/26/24 22:05	08/26/24 22:05	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2349413	1	08/27/24 13:33	08/28/24 13:40	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2351019	1	08/27/24 09:37	08/27/24 10:46	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2351005	1	08/27/24 09:37	08/27/24 14:56	KA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2349807	1	08/30/24 09:02	08/30/24 16:11	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2350409	1	08/27/24 13:45	08/27/24 18:07	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2356695	5	09/06/24 07:40	09/06/24 17:19	UNP	Mt. Juliet, TN

NATIVE BG05 @ 3.5' L1769244-09 Solid

Collected by: Max Buffy | Collected date/time: 08/19/24 11:10 | Received date/time: 08/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2350400	1	08/26/24 22:07	08/26/24 22:07	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2349413	1	08/27/24 13:33	08/28/24 14:12	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2351019	1	08/27/24 09:37	08/27/24 10:46	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2351005	1	08/27/24 09:37	08/27/24 14:56	KA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2349807	1	08/30/24 09:02	08/30/24 16:13	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2350409	1	08/27/24 13:45	08/27/24 18:09	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2356695	5	09/06/24 07:40	09/06/24 17:22	UNP	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

SAMPLE SUMMARY

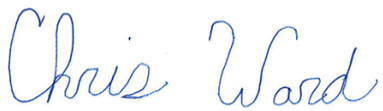
NATIVE BG05 @ 7' L1769244-10 Solid

Collected by: Max Buffy
Collected date/time: 08/19/24 11:25
Received date/time: 08/20/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2350400	1	08/26/24 22:08	08/26/24 22:08	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2349423	1	08/29/24 18:30	09/02/24 01:03	EKB	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2351022	1	08/27/24 09:26	08/27/24 10:58	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2351015	1	08/27/24 09:24	08/27/24 14:41	KA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2349807	1	08/30/24 09:02	08/30/24 15:42	DJS	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2350409	1	08/27/24 13:45	08/27/24 18:14	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2356695	5	09/06/24 07:40	09/06/24 17:25	UNP	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager

Report Revision History

Level II Report - Version 1: 09/09/24 12:11
Level II Report - Version 2: 09/09/24 12:29

Project Narrative

The requested project specific reporting limits may be less than laboratory standard quantitation limits (PQL) but will be greater than or equal to the laboratory method detection limits (MDL). It is noted that results reported below lab standard quantitation limits (PQLs) may result in false positive/false negative values that may require additional laboratory quality assurance review, if requested. Routine laboratory procedures do not initiate a data review process for detections below the laboratory's PQL unless requested by the client.

The requested project specific reporting limits may be less than laboratory standard quantitation limits (PQL) but will be greater than or equal to the laboratory method detection limits (MDL). It is noted that results reported below lab standard quantitation limits (PQLs) may result in false positive/false negative values that may require additional laboratory quality assurance review, if requested. Routine laboratory procedures do not initiate a data review process for detections below the laboratory's PQL unless requested by the client.

Report reissued to correct project info

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.192		1	08/26/2024 21:50	WG2350400

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/28/2024 12:06	WG2349413

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.43	T8	1	08/27/2024 10:58	WG2351022

Sample Narrative:

L1769244-01 WG2351022: 7.43 at 21.3C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	148		10.0	1	08/27/2024 14:41	WG2351015

Sample Narrative:

L1769244-01 WG2351015: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.05	J	0.518	1	08/30/2024 15:59	WG2349807
Barium	25.5		0.400	1	08/30/2024 15:59	WG2349807
Cadmium	ND		0.200	1	08/30/2024 15:59	WG2349807
Copper	0.893	J	0.400	1	08/30/2024 15:59	WG2349807
Lead	1.74		0.208	1	08/30/2024 15:59	WG2349807
Nickel	1.26	J	0.400	1	08/30/2024 15:59	WG2349807
Selenium	ND		0.764	1	08/30/2024 15:59	WG2349807
Silver	ND		0.127	1	08/30/2024 15:59	WG2349807
Zinc	4.33	J	0.832	1	08/30/2024 15:59	WG2349807

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/27/2024 18:26	WG2350409

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	ND		0.260	5	09/06/2024 16:28	WG2356695

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.247		1	08/26/2024 21:52	WG2350400

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/28/2024 12:16	WG2349413

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.30	T8	1	08/27/2024 10:46	WG2351019

Sample Narrative:

L1769244-02 WG2351019: 8.3 at 21.6C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	118		10.0	1	08/27/2024 14:56	WG2351005

Sample Narrative:

L1769244-02 WG2351005: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.60	J	0.518	1	08/30/2024 16:01	WG2349807
Barium	21.7		0.400	1	08/30/2024 16:01	WG2349807
Cadmium	ND		0.200	1	08/30/2024 16:01	WG2349807
Copper	0.881	J	0.400	1	08/30/2024 16:01	WG2349807
Lead	1.28		0.208	1	08/30/2024 16:01	WG2349807
Nickel	0.829	J	0.400	1	08/30/2024 16:01	WG2349807
Selenium	ND		0.764	1	08/30/2024 16:01	WG2349807
Silver	ND		0.127	1	08/30/2024 16:01	WG2349807
Zinc	3.56	J	0.832	1	08/30/2024 16:01	WG2349807

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/27/2024 18:28	WG2350409

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	ND		0.260	5	09/06/2024 16:32	WG2356695

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.127		1	08/26/2024 21:53	WG2350400

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/28/2024 12:27	WG2349413

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.12	T8	1	08/27/2024 10:46	WG2351019

Sample Narrative:

L1769244-03 WG2351019: 7.12 at 21.9C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	37.1		10.0	1	08/27/2024 14:56	WG2351005

Sample Narrative:

L1769244-03 WG2351005: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.65	J	0.518	1	08/30/2024 16:03	WG2349807
Barium	32.4		0.400	1	08/30/2024 16:03	WG2349807
Cadmium	ND		0.200	1	08/30/2024 16:03	WG2349807
Copper	1.96	J	0.400	1	08/30/2024 16:03	WG2349807
Lead	4.11		0.208	1	08/30/2024 16:03	WG2349807
Nickel	2.32		0.400	1	08/30/2024 16:03	WG2349807
Selenium	ND		0.764	1	08/30/2024 16:03	WG2349807
Silver	ND		0.127	1	08/30/2024 16:03	WG2349807
Zinc	10.2		0.832	1	08/30/2024 16:03	WG2349807

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/27/2024 17:58	WG2350409

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.498	J	0.260	5	09/06/2024 16:35	WG2356695

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.188		1	08/26/2024 21:58	WG2350400

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/28/2024 12:48	WG2349413

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.17	T8	1	08/27/2024 10:46	WG2351019

Sample Narrative:

L1769244-04 WG2351019: 7.17 at 22.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	53.4		10.0	1	08/27/2024 14:56	WG2351005

Sample Narrative:

L1769244-04 WG2351005: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.13	J	0.518	1	08/30/2024 16:04	WG2349807
Barium	100		0.400	1	08/30/2024 16:04	WG2349807
Cadmium	ND		0.200	1	08/30/2024 16:04	WG2349807
Copper	1.78	J	0.400	1	08/30/2024 16:04	WG2349807
Lead	6.71		0.208	1	08/30/2024 16:04	WG2349807
Nickel	2.11		0.400	1	08/30/2024 16:04	WG2349807
Selenium	ND		0.764	1	08/30/2024 16:04	WG2349807
Silver	ND		0.127	1	08/30/2024 16:04	WG2349807
Zinc	8.61		0.832	1	08/30/2024 16:04	WG2349807

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/27/2024 18:00	WG2350409

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	ND		0.260	5	09/06/2024 17:05	WG2356695

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.127		1	08/26/2024 22:00	WG2350400

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/28/2024 12:58	WG2349413

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.91	T8	1	08/27/2024 10:58	WG2351022

Sample Narrative:

L1769244-05 WG2351022: 6.91 at 21C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	89.1		10.0	1	08/27/2024 14:41	WG2351015

Sample Narrative:

L1769244-05 WG2351015: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.21	J	0.518	1	08/30/2024 16:06	WG2349807
Barium	34.6		0.400	1	08/30/2024 16:06	WG2349807
Cadmium	ND		0.200	1	08/30/2024 16:06	WG2349807
Copper	1.83	J	0.400	1	08/30/2024 16:06	WG2349807
Lead	2.96		0.208	1	08/30/2024 16:06	WG2349807
Nickel	2.19		0.400	1	08/30/2024 16:06	WG2349807
Selenium	ND		0.764	1	08/30/2024 16:06	WG2349807
Silver	ND		0.127	1	08/30/2024 16:06	WG2349807
Zinc	8.84		0.832	1	08/30/2024 16:06	WG2349807

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/27/2024 18:02	WG2350409

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.288	J	0.260	5	09/06/2024 17:09	WG2356695

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.160		1	08/26/2024 22:02	WG2350400

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/28/2024 13:09	WG2349413

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.14	T8	1	08/27/2024 10:58	WG2351022

Sample Narrative:

L1769244-06 WG2351022: 8.14 at 21C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	190		10.0	1	08/27/2024 14:41	WG2351015

Sample Narrative:

L1769244-06 WG2351015: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.32	J	0.518	1	08/30/2024 16:08	WG2349807
Barium	44.6		0.400	1	08/30/2024 16:08	WG2349807
Cadmium	ND		0.200	1	08/30/2024 16:08	WG2349807
Copper	2.05		0.400	1	08/30/2024 16:08	WG2349807
Lead	3.68		0.208	1	08/30/2024 16:08	WG2349807
Nickel	3.11		0.400	1	08/30/2024 16:08	WG2349807
Selenium	ND		0.764	1	08/30/2024 16:08	WG2349807
Silver	ND		0.127	1	08/30/2024 16:08	WG2349807
Zinc	11.1		0.832	1	08/30/2024 16:08	WG2349807

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/27/2024 18:04	WG2350409

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.345	J	0.260	5	09/06/2024 17:12	WG2356695

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.169		1	08/26/2024 22:03	WG2350400

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/28/2024 13:30	WG2349413

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.18	T8	1	08/27/2024 10:58	WG2351022

Sample Narrative:

L1769244-07 WG2351022: 7.18 at 21.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	157		10.0	1	08/27/2024 14:41	WG2351015

Sample Narrative:

L1769244-07 WG2351015: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.54	J	0.518	1	08/30/2024 16:09	WG2349807
Barium	30.2		0.400	1	08/30/2024 16:09	WG2349807
Cadmium	ND		0.200	1	08/30/2024 16:09	WG2349807
Copper	1.72	J	0.400	1	08/30/2024 16:09	WG2349807
Lead	2.62		0.208	1	08/30/2024 16:09	WG2349807
Nickel	2.08		0.400	1	08/30/2024 16:09	WG2349807
Selenium	ND		0.764	1	08/30/2024 16:09	WG2349807
Silver	ND		0.127	1	08/30/2024 16:09	WG2349807
Zinc	8.51		0.832	1	08/30/2024 16:09	WG2349807

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/27/2024 18:05	WG2350409

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.341	J	0.260	5	09/06/2024 17:15	WG2356695

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.157		1	08/26/2024 22:05	WG2350400

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/28/2024 13:40	WG2349413

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.43	T8	1	08/27/2024 10:46	WG2351019

Sample Narrative:

L1769244-08 WG2351019: 7.43 at 22.2C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	39.5		10.0	1	08/27/2024 14:56	WG2351005

Sample Narrative:

L1769244-08 WG2351005: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.39	J	0.518	1	08/30/2024 16:11	WG2349807
Barium	33.9		0.400	1	08/30/2024 16:11	WG2349807
Cadmium	ND		0.200	1	08/30/2024 16:11	WG2349807
Copper	2.44		0.400	1	08/30/2024 16:11	WG2349807
Lead	2.79		0.208	1	08/30/2024 16:11	WG2349807
Nickel	1.91	J	0.400	1	08/30/2024 16:11	WG2349807
Selenium	ND		0.764	1	08/30/2024 16:11	WG2349807
Silver	ND		0.127	1	08/30/2024 16:11	WG2349807
Zinc	8.57		0.832	1	08/30/2024 16:11	WG2349807

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/27/2024 18:07	WG2350409

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	ND		0.260	5	09/06/2024 17:19	WG2356695

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.367		1	08/26/2024 22:07	WG2350400

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	08/28/2024 14:12	WG2349413

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.48	T8	1	08/27/2024 10:46	WG2351019

Sample Narrative:

L1769244-09 WG2351019: 8.48 at 22.4C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	168		10.0	1	08/27/2024 14:56	WG2351005

Sample Narrative:

L1769244-09 WG2351005: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.841	J	0.518	1	08/30/2024 16:13	WG2349807
Barium	35.2		0.400	1	08/30/2024 16:13	WG2349807
Cadmium	ND		0.200	1	08/30/2024 16:13	WG2349807
Copper	1.61	J	0.400	1	08/30/2024 16:13	WG2349807
Lead	2.45		0.208	1	08/30/2024 16:13	WG2349807
Nickel	2.06		0.400	1	08/30/2024 16:13	WG2349807
Selenium	ND		0.764	1	08/30/2024 16:13	WG2349807
Silver	ND		0.127	1	08/30/2024 16:13	WG2349807
Zinc	10.6		0.832	1	08/30/2024 16:13	WG2349807

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/27/2024 18:09	WG2350409

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.274	J	0.260	5	09/06/2024 17:22	WG2356695

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.351		1	08/26/2024 22:08	WG2350400

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.300	1	09/02/2024 01:03	WG2349423

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.90	T8	1	08/27/2024 10:58	WG2351022

Sample Narrative:

L1769244-10 WG2351022: 7.9 at 20.8C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	626		10.0	1	08/27/2024 14:41	WG2351015

Sample Narrative:

L1769244-10 WG2351015: at 25C

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.02		0.518	1	08/30/2024 15:42	WG2349807
Barium	56.3		0.400	1	08/30/2024 15:42	WG2349807
Cadmium	ND		0.200	1	08/30/2024 15:42	WG2349807
Copper	1.90	J	0.400	1	08/30/2024 15:42	WG2349807
Lead	3.52		0.208	1	08/30/2024 15:42	WG2349807
Nickel	3.48		0.400	1	08/30/2024 15:42	WG2349807
Selenium	ND		0.764	1	08/30/2024 15:42	WG2349807
Silver	ND		0.127	1	08/30/2024 15:42	WG2349807
Zinc	13.4		0.832	1	08/30/2024 15:42	WG2349807

Metals (ICP) by Method 6010B-NE493 Ch 2

Analyte	Result mg/l	Qualifier	RL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	ND		2.00	1	08/27/2024 18:14	WG2350409

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	RL mg/kg	Dilution	Analysis date / time	Batch
Selenium	0.359	J	0.260	5	09/06/2024 17:25	WG2356695

QUALITY CONTROL SUMMARY

L1769244-01,02,03,04,05,06,07,08,09

Method Blank (MB)

(MB) R4113846-1 08/28/24 10:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexavalent Chromium	ND		0.255	1.00

L1769244-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1769244-03 08/28/24 12:27 • (DUP) R4113846-7 08/28/24 12:37

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	ND	ND	1	0.000		20

L1769244-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1769244-06 08/28/24 13:09 • (DUP) R4113846-8 08/28/24 13:19

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4113846-2 08/28/24 10:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	10.4	104	80.0-120	

L1769224-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1769224-01 08/28/24 10:31 • (MS) R4113846-3 08/28/24 10:42 • (MSD) R4113846-4 08/28/24 10:52

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	ND	4.44	8.72	22.2	43.6	1	75.0-125	J6	J3 J6	65.0	20

L1769224-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1769224-01 08/28/24 10:31 • (MS) R4113846-9 08/28/24 11:03

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	641	ND	475	74.1	50	75.0-125	J6

Method Blank (MB)

(MB) R4114530-1 09/02/24 00:49

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexavalent Chromium	ND		0.255	1.00

L1770357-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1770357-04 09/02/24 02:49 • (DUP) R4114530-7 09/02/24 02:55

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	ND	ND	1	0.000		20

L1770357-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1770357-14 09/02/24 03:44 • (DUP) R4114530-8 09/02/24 03:50

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Hexavalent Chromium	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4114530-2 09/02/24 00:57

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexavalent Chromium	10.0	10.1	101	80.0-120	

L1769244-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1769244-10 09/02/24 01:03 • (MS) R4114530-4 09/02/24 01:16 • (MSD) R4114530-5 09/02/24 01:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Hexavalent Chromium	20.0	ND	20.1	19.5	100	97.6	1	75.0-125			2.89	20

L1769244-10 Original Sample (OS) • Matrix Spike (MS)

(OS) L1769244-10 09/02/24 01:03 • (MS) R4114530-6 09/02/24 01:28

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	648	ND	593	91.6	50	75.0-125	

L1768286-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1768286-05 08/27/24 10:46 • (DUP) R4112135-2 08/27/24 10:46

Analyte	Original Result su	DUP Result su	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
pH	7.79	7.79	1	0.000		1

Sample Narrative:

OS: 7.79 at 22.1C

DUP: 7.79 at 21.8C

L1769947-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1769947-06 08/27/24 10:46 • (DUP) R4112135-3 08/27/24 10:46

Analyte	Original Result pH	DUP Result su	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
pH	8.26	8.26	1	0.000		1

Sample Narrative:

OS: 8.26 at 21.1C

DUP: 8.26 at 21C

Laboratory Control Sample (LCS)

(LCS) R4112135-1 08/27/24 10:46

Analyte	Spike Amount su	LCS Result su	LCS Rec. %	Rec. Limits %	LCS Qualifier
pH	10.0	9.99	99.9	99.0-101	

Sample Narrative:

LCS: 9.99 at 21.5C

L1769232-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1769232-01 08/27/24 10:58 • (DUP) R4112127-2 08/27/24 10:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	pH	su		%		%
pH	8.45	8.41	1	0.474		1

Sample Narrative:

OS: 8.45 at 21.3C

DUP: 8.41 at 21.3C

Laboratory Control Sample (LCS)

(LCS) R4112127-1 08/27/24 10:58

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 2.3C

Method Blank (MB)

(MB) R4112343-1 08/27/24 14:56

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	ND		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1768286-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1768286-04 08/27/24 14:56 • (DUP) R4112343-3 08/27/24 14:56

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	141	143	1	1.83		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1769904-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1769904-05 08/27/24 14:56 • (DUP) R4112343-4 08/27/24 14:56

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	410	402	1	1.97		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4112343-2 08/27/24 14:56

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	728	99.3	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4112271-1 08/27/24 14:41

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	ND		10.0	10.0

Sample Narrative:

BLANK: at 25C

L1769244-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1769244-07 08/27/24 14:41 • (DUP) R4112271-3 08/27/24 14:41

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	157	143	1	8.81		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4112271-2 08/27/24 14:41

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	727	99.2	85.0-115	

Sample Narrative:

LCS: at 25C

Method Blank (MB)

(MB) R4114262-1 08/30/24 15:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	ND		0.518	2.00
Barium	1.61		0.0852	0.500
Cadmium	ND		0.0471	0.500
Copper	ND		0.400	2.00
Lead	ND		0.208	0.500
Nickel	ND		0.132	2.00
Selenium	ND		0.764	2.00
Silver	ND		0.127	1.00
Zinc	ND		0.832	5.00

Laboratory Control Sample (LCS)

(LCS) R4114262-2 08/30/24 15:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	99.5	99.5	80.0-120	
Barium	100	101	101	80.0-120	
Cadmium	100	96.5	96.5	80.0-120	
Copper	100	99.1	99.1	80.0-120	
Lead	100	95.9	95.9	80.0-120	
Nickel	100	95.9	95.9	80.0-120	
Selenium	100	92.6	92.6	80.0-120	
Silver	20.0	18.6	92.9	80.0-120	
Zinc	100	98.3	98.3	80.0-120	

L1769244-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1769244-10 08/30/24 15:42 • (MS) R4114262-5 08/30/24 15:48 • (MSD) R4114262-6 08/30/24 15:49

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	2.02	102	106	99.8	104	1	75.0-125			4.12	20
Barium	100	56.3	148	150	91.6	93.5	1	75.0-125			1.32	20
Cadmium	100	ND	97.8	101	97.7	101	1	75.0-125			3.72	20
Copper	100	1.90	102	107	101	105	1	75.0-125			4.07	20
Lead	100	3.52	102	106	98.2	102	1	75.0-125			3.94	20
Nickel	100	3.48	104	107	100	103	1	75.0-125			2.74	20
Selenium	100	ND	92.8	98.0	92.8	98.0	1	75.0-125			5.53	20
Silver	20.0	ND	19.1	19.9	95.3	99.4	1	75.0-125			4.14	20
Zinc	100	13.4	115	117	101	103	1	75.0-125			1.59	20

Method Blank (MB)

(MB) R4112520-1 08/27/24 17:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hot Water Sol. Boron	ND		0.0167	0.200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4112520-2 08/27/24 17:55 • (LCSD) R4112520-3 08/27/24 17:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hot Water Sol. Boron	1.00	0.999	0.994	99.9	99.4	80.0-120			0.537	20

Method Blank (MB)

(MB) R4116672-2 09/06/24 16:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Selenium	ND		0.180	2.50

Laboratory Control Sample (LCS)

(LCS) R4116672-3 09/06/24 16:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Selenium	100	106	106	80.0-120	

L1773528-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1773528-03 09/06/24 16:12 • (MS) R4116672-6 09/06/24 16:22 • (MSD) R4116672-7 09/06/24 16:25

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Selenium	100	0.551	87.6	90.7	87.1	90.1	5	75.0-125			3.44	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address: Civitas-CO, 6855 W. 119th Ave., Broomfield, CO 80020

Billing Information: Accounts Payable, 650 Southgate Dr., Windsor, CO 80550, AFE: 24295

Report to: Jacob Evans

Email To: tlyon@ensolum.com, bsulzberger@ensolum.com, devans@civiresources.com

Project Description: North Platte K-0-13 HNC

City/State Collected: CO

Please Circle: PT (MT) CT ET

Phone:

Client Project #

Lab Project #

Collected by (print): Max Buffy

Site/Facility ID #

P.O. #

Collected by (signature): M. Buffy

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day

Quote #

Date Results Needed: Standard TAT

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	pH, EC, SAR, Boron	9155 metals	Remarks	Sample # (lab only)
Native BG01 @3.5'	G	SS	3.5	8/19/24	1148	3	X	X		-01
Native BG01 @7'			7		1202					-02
Native BG02 @ 3.5'			3.5		1305					-03
Native BG02 @ 7'			7		1322					-04
Native BG03 @ 3.5'			3.5		1350					-05
Native BG03 @ 7'			7		1359					-06
Native BG04 @ 3.5'			3.5		1231					-07
Native BG04 @ 7'			7		1248					-08
Native BG05 @ 3.5'			3.5		1116					-09
Native BG05 @ 7'			7		1125					-10

Chain of Custody Page 1 of 1

Pace — PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122

Phone: 615-758-5858 Alt: 800-767-5859

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

SDG # L1769744

A081

Acctnum:

Template:

Prelogin:

PM:

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

	Date:	Time:	
Relinquished by: (Signature) M. Buffy	8/19/24	1550	Received by: (Signature)
Relinquished by: (Signature)	8/19/24	1600	Received by: (Signature) FedEx
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No HCL / MeoH TBR

Temp: °C Bottles Received: 30

Date: 8/20/24 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

UTL09244

Tracking Numbers	Temperature
9102916608 17	2.0+0.3=2.3
9102916607 14	0.9+0.3=1.2
9102916608 39	1.4+0.3=1.7
9102916607 25	3.6+0.3=3.9
~~7315 3144 0937~~	

Name

8/20
Date