

Weld Weitzel 5-33 (OWP)

SWNW Sec. 33-T7N-R60W

API #: 123-14685

Remediation Project #: 33569

Form 19 Data Package

June 2024


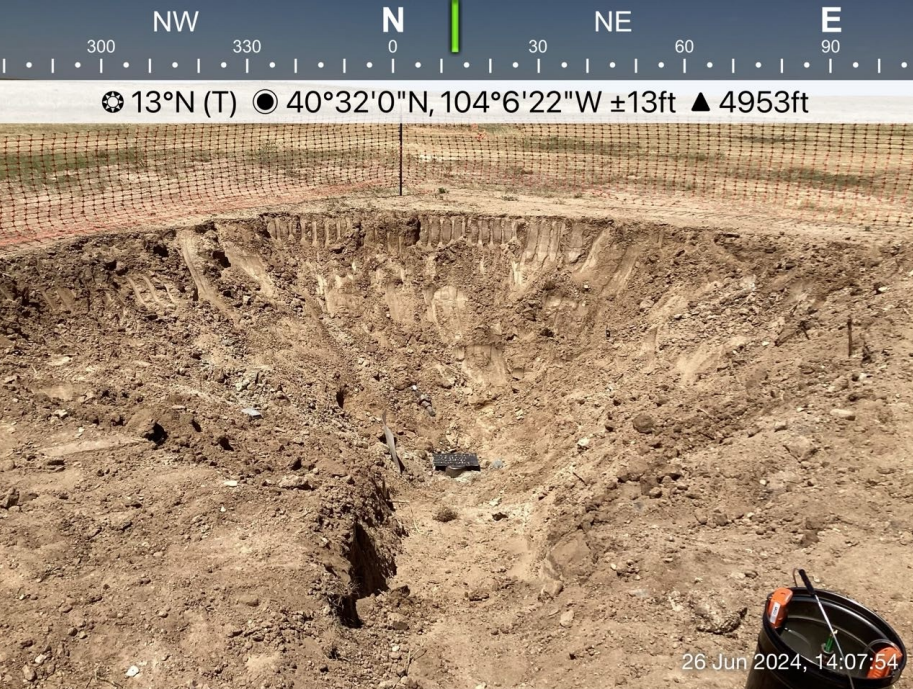
Prepared by Tasman, Inc.



On behalf of Smith Energy Corp.

FIELD NOTES AND PHOTO LOG

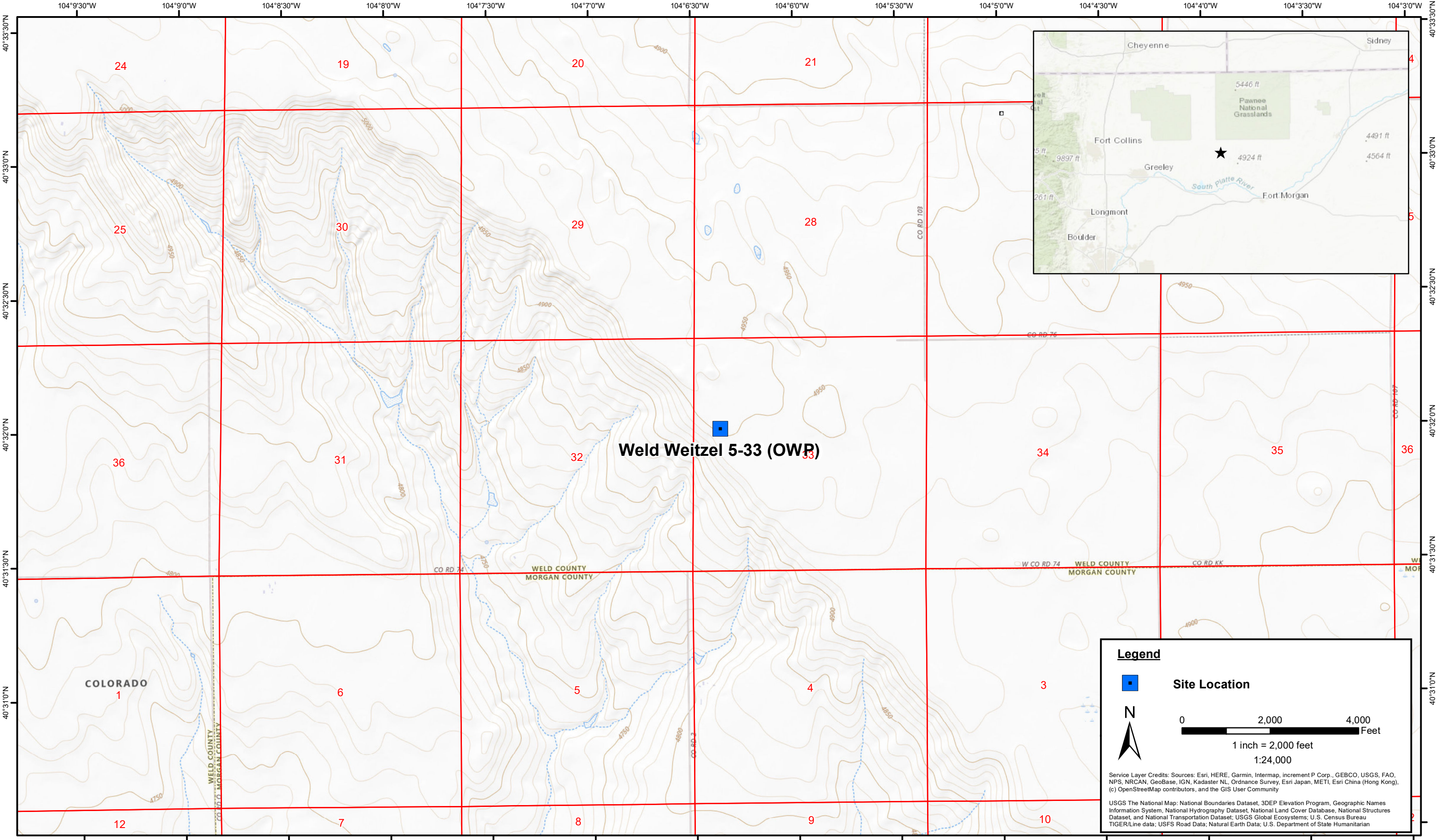
SITE NAME: Weld Weitzel 5-33								DATE: 6/26/2024	REM. PROJECT #: 33569	WEATHER: Sunny, 90(F)
SITE DIRECTIONS: CR 2 & CR KK - E 0.48 mi, N 0.34 mi, NW 0.5 mi INTO								CLIENT: Smith Energy Corp.		
LEGALS AND LAT/LONG: 40.533450, -104.106300								TASMAN PERSONNEL: Sean Clarke, Gabby Mather		
SOIL TYPES: SC - clayey sand								SURFACE GRADIENT: North		
SURROUNDING LAND USE: Rangeland								CROP: NA		
SOIL SAMPLING								FACILITY INFRASTRUCTURE		
Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo? (Y/N)	USCS	Lab (Y/N)	EQUIPMENT	Quantity	
								Above Ground Storage Tank (AST)		
6/26/2024 14:15	WH-B01@7'	2.1	No Staining	No Odor	Y	SC	Y	Produced Water Vessel (PWV)		
6/26/2024 14:20	WH-N01@6'	3.3	No Staining	No Odor	Y	SC	N	Separator (SEP)		
6/26/2024 14:25	WH-S01@6'	1.0	No Staining	No Odor	Y	SC	N	Emission Control Device (ECD)		
6/26/2024 14:30	WH-E01@6'	2.6	No Staining	No Odor	Y	SC	N	Dump Line (DL)		
6/26/2024 14:35	WH-W01@6'	1.9	No Staining	No Odor	Y	SC	N	Wellhead (WH)	1	
6/26/2024 14:40	SP-CS01	2.5	No Staining	No Odor	Y	SC	Y	Flowline (FL)		
								FL Method of Closure		
								FL Footage Removed		
								Footaged Abandoned in Place		
								Other:		
								Soil Loads Removed		
								IMPACTED SOIL IDENTIFIED? Yes		
								ESTIMATED VOLUME OF IMPACTS:		
								Date	Number	CY
								Total Removed	0	0
								Disposal Facility:		
								Groundwater Recovery		
								DATE GW ENCOUNTERED:		DEPTH:
								GROUNDWATER IN CONTACT WITH IMPACTED SOIL?		
								LNAPL OR SHEEN OBSERVED ON GW?		
GROUNDWATER SAMPLING								Date	BBLs	
Date/Time	Groundwater Sample ID	Depth Collected	Turbid?	Sheen?	Odor?	Photo?				
								Total Removed	0	
								Disposal Facility:		

							
Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions: Soil sampling and screening locations.				Notes/Conditions: Wellhead excavation overview.			

											
Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:					
Material:		Volume:		Contents:		Material:		Volume:		Contents:	
Notes/Conditions: Surrounding land use, facing North.						Notes/Conditions: Surrounding land use, facing West.					

					
Equipment ID:			Equipment Type:		
Material:	Volume:	Contents:	Equipment ID:	Equipment Type:	Contents:
Notes/Conditions: Surrounding land use, facing South.			Notes/Conditions: Surrounding land use, facing East.		

FIGURES



DATE:	July 2024
DESIGNED BY:	S. Vogt
DRAWN BY:	J. Woffinden

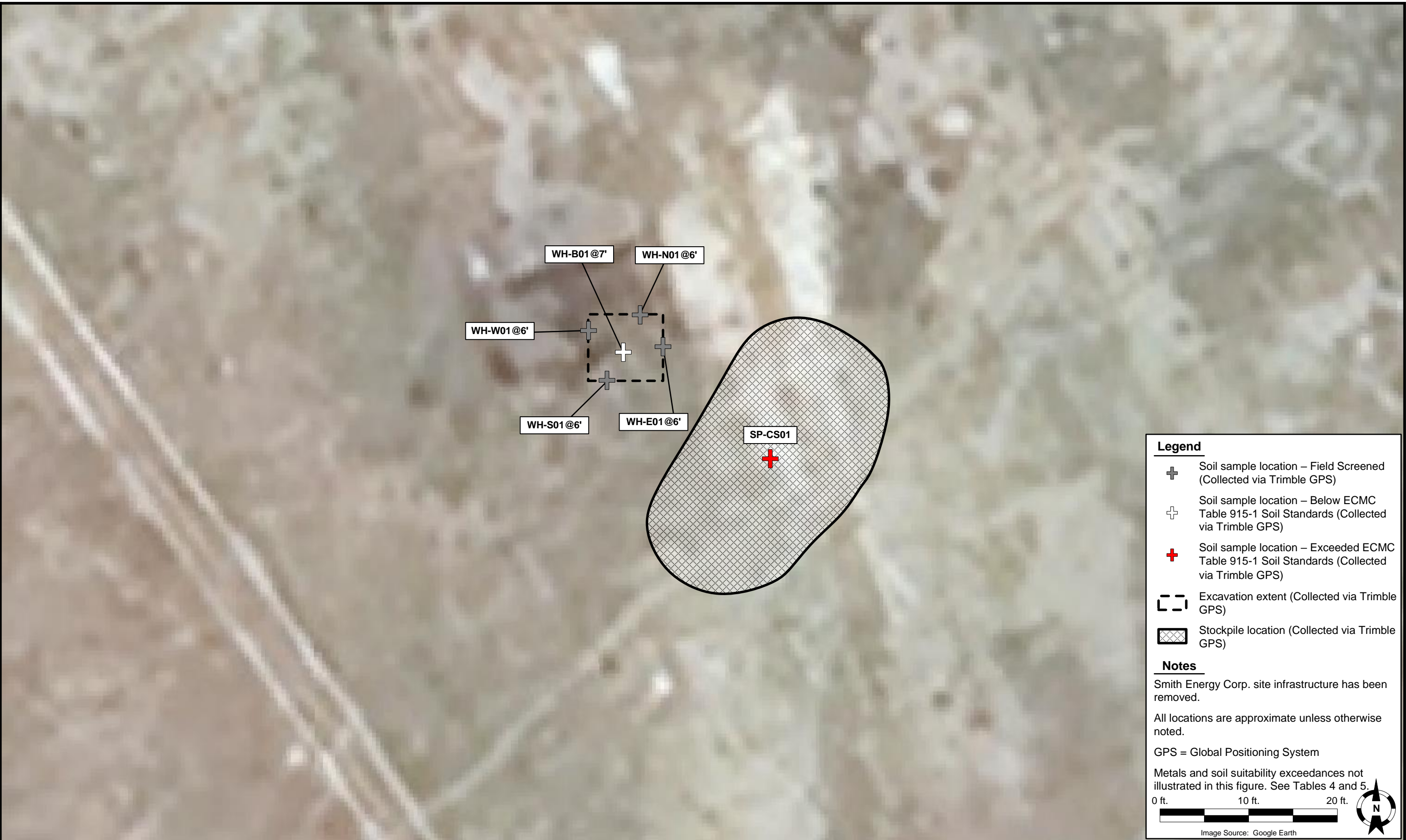
**TASMAN**

Tasman, Inc.
6855 W. 119th Ave
Broomfield, CO 80020

Smith Energy Corp
Weld Weitzel 5-33 (OWP)
SWNW Sec. 33-T7N-R60W
Weld County, Colorado

Site Location Map

Figure
1



TABLES

TABLE 1
WELD WEITZEL 5-33 (OWP)
SOIL SAMPLE LOCATIONS
SMITH ENERGY CORP.



Soil Sample Location	Depth	Date	PID Reading (ppm)	Latitude	Longitude	GPS PDOP Value	Lab (Y/N)
WH-B01@7'	7'	06/26/2024	2.1	40.533435	-104.106305	1	Y
WH-N01@6'	6'	06/26/2024	3.3	40.533447	-104.106297	0.9	N
WH-S01@6'	6'	06/26/2024	1.0	40.533428	-104.106311	1.1	N
WH-E01@6'	6'	06/26/2024	2.6	40.533436	-104.106291	1	Y
WH-W01@6'	6'	06/26/2024	1.9	40.533442	-104.106316	1	N
SP-CS01	-	06/26/2024	2.5	40.533441	-104.106252	1	Y

Notes:

PID = Photoionization Detector

ppm = parts per million

GPS = Global Positioning System

PDOP = Position Dilution of Precision

- = Not Applicable

TABLE 2
WELD WEITZEL 5-33 (OWP)
SOIL ANALYTICAL DATA - VOCs
SMITH ENERGY CORP.

Soil Sample Location	Depth	Date	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 - GSSL ⁽¹⁾			0.0026	0.69	0.78	9.9	0.0038	500			0.0081	0.0087
ECMC Organic Compounds in Soils - RSL ⁽²⁾			1.2	490	5.8	58	2	500			30	27
WH-B01@7'	7'	06/26/2024	<0.000467	<0.00130	<0.000737	<0.000880	<0.00408	0.0308	51.5	87.7	<0.00158	<0.00200
SP-CS01	-	06/26/2024	<0.000467	<0.00130	<0.000737	<0.000880	<0.00408	0.0884	18.0	43.9	<0.00158	<0.00200

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 & Carbon Management Commission

GSSL = Protection of Groundwater Screening Level

RSL = Residential Soil Screening Level

(<) = Analytical result is less than the indicated laboratory reporting limit

mg/kg = milligrams per kilogram

TVPH - GRO = Total Volatile Petroleum Hydrocarbons - Gasoline Range Organics

TEPH - DRO = Total Extractable Petroleum Hydrocarbons - Diesel Range Organics

TEPH - ORO = Total Extractable Petroleum Hydrocarbons - Oil Range Organics

1,2,4 - TMB = 1,2,4 - Trimethylbenzene

1,3,5 - TMB = 1,3,5 - Trimethylbenzene

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

TABLE 3
WELD WEITZEL 5-33 (OWP)
SOIL ANALYTICAL DATA - PAHs
SMITH ENERGY CORP.

Soil Sample Location	Depth	Date	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 - GSSL ⁽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 - RSL ⁽²⁾			360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180
WH-B01@7'	7'	06/26/2024	<0.00209	<0.00230	<0.00173	<0.00153	<0.00215	<0.00179	<0.00232	<0.00172	<0.00227	<0.00205	<0.00181	<0.00449	<0.00427	<0.00200
SP-CS01	-	06/26/2024	<0.00209	<0.00230	<0.00173	<0.00153	<0.00215	<0.00179	0.00254	<0.00172	<0.00227	0.00702	<0.00181	0.00701	<0.00427	0.00674

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 & Carbon Management Commission

GSSL = Protection of Groundwater Screening Level

RSL = Residential Soil Screening Level

(<) = 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 = Dibenzo(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

TABLE 4
WELD WEITZEL 5-33 (OWP)
SOIL ANALYTICAL DATA - METALS
SMITH ENERGY CORP.

Soil Sample Location	Depth	Date	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 Metals in Soils - GSSL ⁽¹⁾			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
ECMC Metals in Soils - RSL ⁽²⁾			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
WH-B01@7'	7'	06/26/2024	2.36	64.3	0.0863	0.259	4.68	6.79	4.70	0.184	<0.0865	18.5
SP-CS01	-	06/26/2024	2.45	65.5	0.109	0.302	5.57	14.2	4.85	0.227	<0.0865	20.8

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 & Carbon Management Commission

GSSL = Protection of Groundwater Screening Level

RSL = Residential Soil Screening Level

(<) = 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

TABLE 5
WELD WEITZEL 5-33 (OWP)
SOIL ANALYTICAL DATA - SOIL RECLAMATION
SMITH ENERGY CORP.



Soil Sample Location	Depth	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC Soil Suitability for Reclamation ⁽¹⁾			6 - 8.3	< 6	< 4	2
WH-B01@7'	7'	06/26/2024	8.50	0.714	0.192	0.176
SP-CS01	-	06/26/2024	7.82	0.342	0.282	0.417

Notes:

(1) Standards for soil are taken from ECMC Table 915-1: Soil Suitability for Reclamation (Effective January 15, 2021)

ECMC = Colorado Energy & 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

LABORATORY ANALYTICAL DATA

Civitas - CO

Sample Delivery Group: L1751783
Samples Received: 06/28/2024
Project Number: 24151
Description: Weld Weitzel 5-33

Report To: Sam Vogt / Jacob Evans
6855 W. 118th Ave
Broomfield, CO 80020

Entire Report Reviewed By:



Chris Ward
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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

SAMPLE SUMMARY

WH-B01@7 L1751783-01 Solid

Collected by
Sean Clarke

Collected date/time
06/26/24 14:15

Received date/time
06/28/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2316086	1	07/04/24 14:17	07/04/24 14:17	JTM	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2315057	1	07/03/24 06:40	07/04/24 06:13	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2317656	1	07/04/24 20:02	07/04/24 20:30	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2317657	1	07/04/24 20:03	07/04/24 20:30	KRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2316093	1	07/08/24 07:59	07/08/24 20:41	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2314553	5	07/03/24 10:44	07/10/24 13:25	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2315947	1	07/01/24 11:24	07/02/24 17:56	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2317045	1	07/01/24 11:24	07/05/24 10:22	JBE	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2316775	1	07/04/24 00:18	07/04/24 10:46	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2316771	1	07/03/24 16:33	07/04/24 04:48	MBE	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

SP-CS01 L1751783-02 Solid

Collected by
Sean Clarke

Collected date/time
06/26/24 14:40

Received date/time
06/28/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2316081	1	07/08/24 13:28	07/08/24 13:28	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 7199	WG2315057	1	07/03/24 06:40	07/04/24 06:29	VSS	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2319136	1	07/08/24 14:25	07/08/24 17:19	BJM	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2319123	1	07/08/24 14:15	07/09/24 07:27	KA	Mt. Juliet, TN
Metals (ICP) by Method 6010B-NE493 Ch 2	WG2316089	1	07/03/24 14:57	07/03/24 21:01	ZSA	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2314553	5	07/03/24 10:44	07/10/24 13:28	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2315947	1	07/01/24 11:24	07/02/24 18:46	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2317287	1	07/01/24 11:24	07/03/24 22:59	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015M	WG2316775	1	07/04/24 00:18	07/04/24 11:28	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2316771	1	07/03/24 16:33	07/04/24 04:31	MBE	Mt. Juliet, TN

⁷Gl

⁸Al

⁹Sc

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: 07/10/24 14:05

Project Narrative

Report reissued for updated project name



Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.714		1	07/04/2024 14:17	WG2316086

1
Cp

2
Tc

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.259	B J	0.255	1.00	1	07/04/2024 06:13	WG2315057

3
Ss

4
Cn

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	8.50	T8	1	07/04/2024 20:30	WG2317656

5
Sr

6
Qc

Sample Narrative:

L1751783-01 WG2317656: 8.5 at 23.8C

7
Gl

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	192		10.0	1	07/04/2024 20:30	WG2317657

8
Al

Sample Narrative:

L1751783-01 WG2317657: at 25C

9
Sc

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.176	J	0.0167	0.200	1	07/08/2024 20:41	WG2316093

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.36		0.100	1.00	5	07/10/2024 13:25	WG2314553
Barium	64.3		0.152	2.50	5	07/10/2024 13:25	WG2314553
Cadmium	0.0863	J	0.0855	1.00	5	07/10/2024 13:25	WG2314553
Copper	4.68	J	0.132	5.00	5	07/10/2024 13:25	WG2314553
Lead	6.79		0.0990	2.00	5	07/10/2024 13:25	WG2314553
Nickel	4.70		0.197	2.50	5	07/10/2024 13:25	WG2314553
Selenium	0.184	J	0.180	2.50	5	07/10/2024 13:25	WG2314553
Silver	U		0.0865	0.500	5	07/10/2024 13:25	WG2314553
Zinc	18.5	J	0.740	25.0	5	07/10/2024 13:25	WG2314553

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0308	B J	0.0217	0.100	1	07/02/2024 17:56	WG2315947
(S) a,a,a-Trifluorotoluene(FID)	96.4			77.0-120		07/02/2024 17:56	WG2315947

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	07/05/2024 10:22	WG2317045
Toluene	U		0.00130	0.00500	1	07/05/2024 10:22	WG2317045
Ethylbenzene	U		0.000737	0.00250	1	07/05/2024 10:22	WG2317045
Xylenes, Total	U		0.000880	0.00650	1	07/05/2024 10:22	WG2317045
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/05/2024 10:22	WG2317045
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/05/2024 10:22	WG2317045
(S) Toluene-d8	97.8			75.0-131		07/05/2024 10:22	WG2317045
(S) 4-Bromofluorobenzene	111			67.0-138		07/05/2024 10:22	WG2317045
(S) 1,2-Dichloroethane-d4	81.3			70.0-130		07/05/2024 10:22	WG2317045

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	51.5		1.61	4.00	1	07/04/2024 10:46	WG2316775
C28-C36 Motor Oil Range	87.7		0.274	4.00	1	07/04/2024 10:46	WG2316775
(S) o-Terphenyl	52.4			18.0-148		07/04/2024 10:46	WG2316775

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	07/04/2024 04:48	WG2316771
Anthracene	U		0.00230	0.00600	1	07/04/2024 04:48	WG2316771
Benzo(a)anthracene	U		0.00173	0.00600	1	07/04/2024 04:48	WG2316771
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/04/2024 04:48	WG2316771
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/04/2024 04:48	WG2316771
Benzo(a)pyrene	U		0.00179	0.00600	1	07/04/2024 04:48	WG2316771
Chrysene	U		0.00232	0.00600	1	07/04/2024 04:48	WG2316771
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/04/2024 04:48	WG2316771
Fluoranthene	U		0.00227	0.00600	1	07/04/2024 04:48	WG2316771
Fluorene	U		0.00205	0.00600	1	07/04/2024 04:48	WG2316771
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/04/2024 04:48	WG2316771
1-Methylnaphthalene	U		0.00449	0.0200	1	07/04/2024 04:48	WG2316771
2-Methylnaphthalene	U		0.00427	0.0200	1	07/04/2024 04:48	WG2316771
Naphthalene	U		0.00408	0.0200	1	07/04/2024 04:48	WG2316771
Pyrene	U		0.00200	0.00600	1	07/04/2024 04:48	WG2316771
(S) p-Terphenyl-d14	99.3			23.0-120		07/04/2024 04:48	WG2316771
(S) Nitrobenzene-d5	100			14.0-149		07/04/2024 04:48	WG2316771
(S) 2-Fluorobiphenyl	92.2			34.0-125		07/04/2024 04:48	WG2316771

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.342		1	07/08/2024 13:28	WG2316081

1
Cp

2
Tc

Wet Chemistry by Method 7199

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Hexavalent Chromium	0.302	B J	0.255	1.00	1	07/04/2024 06:29	WG2315057

3
Ss

4
Cn

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.82	T8	1	07/08/2024 17:19	WG2319136

5
Sr

6
Qc

Sample Narrative:

L1751783-02 WG2319136: 7.82 at 23.3C

7
Gl

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	282		10.0	1	07/09/2024 07:27	WG2319123

8
Al

9
Sc

Sample Narrative:

L1751783-02 WG2319123: at 25C

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Hot Water Sol. Boron	0.417		0.0167	0.200	1	07/03/2024 21:01	WG2316089

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.45		0.100	1.00	5	07/10/2024 13:28	WG2314553
Barium	65.5		0.152	2.50	5	07/10/2024 13:28	WG2314553
Cadmium	0.109	J	0.0855	1.00	5	07/10/2024 13:28	WG2314553
Copper	5.57		0.132	5.00	5	07/10/2024 13:28	WG2314553
Lead	14.2		0.0990	2.00	5	07/10/2024 13:28	WG2314553
Nickel	4.85		0.197	2.50	5	07/10/2024 13:28	WG2314553
Selenium	0.227	J	0.180	2.50	5	07/10/2024 13:28	WG2314553
Silver	U		0.0865	0.500	5	07/10/2024 13:28	WG2314553
Zinc	20.8	J	0.740	25.0	5	07/10/2024 13:28	WG2314553

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0884	B J	0.0217	0.100	1	07/02/2024 18:46	WG2315947
(S) a,a,a-Trifluorotoluene(FID)	96.3			77.0-120		07/02/2024 18:46	WG2315947

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	U		0.000467	0.00100	1	07/03/2024 22:59	WG2317287
Toluene	U		0.00130	0.00500	1	07/03/2024 22:59	WG2317287
Ethylbenzene	U		0.000737	0.00250	1	07/03/2024 22:59	WG2317287
Xylenes, Total	U		0.000880	0.00650	1	07/03/2024 22:59	WG2317287
1,2,4-Trimethylbenzene	U		0.00158	0.00500	1	07/03/2024 22:59	WG2317287
1,3,5-Trimethylbenzene	U		0.00200	0.00500	1	07/03/2024 22:59	WG2317287
(S) Toluene-d8	98.3			75.0-131		07/03/2024 22:59	WG2317287
(S) 4-Bromofluorobenzene	103			67.0-138		07/03/2024 22:59	WG2317287
(S) 1,2-Dichloroethane-d4	94.7			70.0-130		07/03/2024 22:59	WG2317287

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	18.0		1.61	4.00	1	07/04/2024 11:28	WG2316775
C28-C36 Motor Oil Range	43.9		0.274	4.00	1	07/04/2024 11:28	WG2316775
(S) o-Terphenyl	39.3			18.0-148		07/04/2024 11:28	WG2316775

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00209	0.00600	1	07/04/2024 04:31	WG2316771
Anthracene	U		0.00230	0.00600	1	07/04/2024 04:31	WG2316771
Benzo(a)anthracene	U		0.00173	0.00600	1	07/04/2024 04:31	WG2316771
Benzo(b)fluoranthene	U		0.00153	0.00600	1	07/04/2024 04:31	WG2316771
Benzo(k)fluoranthene	U		0.00215	0.00600	1	07/04/2024 04:31	WG2316771
Benzo(a)pyrene	U		0.00179	0.00600	1	07/04/2024 04:31	WG2316771
Chrysene	0.00254	U	0.00232	0.00600	1	07/04/2024 04:31	WG2316771
Dibenz(a,h)anthracene	U		0.00172	0.00600	1	07/04/2024 04:31	WG2316771
Fluoranthene	U		0.00227	0.00600	1	07/04/2024 04:31	WG2316771
Fluorene	0.00702		0.00205	0.00600	1	07/04/2024 04:31	WG2316771
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600	1	07/04/2024 04:31	WG2316771
1-Methylnaphthalene	0.00701	U	0.00449	0.0200	1	07/04/2024 04:31	WG2316771
2-Methylnaphthalene	U		0.00427	0.0200	1	07/04/2024 04:31	WG2316771
Naphthalene	U		0.00408	0.0200	1	07/04/2024 04:31	WG2316771
Pyrene	0.00674		0.00200	0.00600	1	07/04/2024 04:31	WG2316771
(S) p-Terphenyl-d14	105			23.0-120		07/04/2024 04:31	WG2316771
(S) Nitrobenzene-d5	121			14.0-149		07/04/2024 04:31	WG2316771
(S) 2-Fluorobiphenyl	105			34.0-125		07/04/2024 04:31	WG2316771

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4090029-1 07/04/24 02:13

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Hexavalent Chromium	0.324	⬇	0.255	1.00

L1751783-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1751783-01 07/04/24 06:13 • (DUP) R4090029-11 07/04/24 06:21

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	0.259	0.262	1	1.21	⬇	20

L1751996-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1751996-04 07/04/24 07:01 • (DUP) R4090029-12 07/04/24 07:09

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Hexavalent Chromium	0.713	0.661	1	7.58	⬇	20

Laboratory Control Sample (LCS)

(LCS) R4090029-2 07/04/24 02:21

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Hexavalent Chromium	10.0	11.0	110	80.0-120	

L1750386-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1750386-03 07/04/24 03:01 • (MS) R4090029-4 07/04/24 03:17 • (MSD) R4090029-5 07/04/24 03:25

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	0.267	4.24	4.98	19.9	23.6	1	75.0-125	J6	J6	16.1	20

L1750386-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1750386-05 07/04/24 04:05 • (MS) R4090029-8 07/04/24 04:21 • (MSD) R4090029-9 07/04/24 04:29

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Hexavalent Chromium	20.0	0.347	10.3	9.26	49.8	44.6	1	75.0-125	J6	J6	10.8	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1750386-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1750386-03 07/04/24 03:01 • (MS) R4090029-6 07/04/24 03:49

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	633	0.267	419	66.2	50	75.0-125	<u>J6</u>

L1750386-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1750386-05 07/04/24 04:05 • (MS) R4090029-10 07/04/24 04:37

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Hexavalent Chromium	643	0.347	470	73.1	50	75.0-125	<u>J6</u>

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1751570-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1751570-04 07/04/24 20:30 • (DUP) R4090190-2 07/04/24 20:30

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.11	8.06	1	0.618		1

Sample Narrative:

OS: 8.11 at 23.7C

DUP: 8.06 at 23.7C



L1752207-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1752207-10 07/04/24 20:30 • (DUP) R4090190-3 07/04/24 20:30

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.92	7.94	1	0.252		1

Sample Narrative:

OS: 7.92 at 23.1C

DUP: 7.94 at 23.2C

Laboratory Control Sample (LCS)

(LCS) R4090190-1 07/04/24 20:30

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

Sample Narrative:

LCS: 10 at 22.9C

L1751570-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1751570-05 07/08/24 17:19 • (DUP) R4091275-2 07/08/24 17:19

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	7.94	7.93	1	0.126		1

Sample Narrative:

OS: 7.94 at 23.5C

DUP: 7.93 at 23.6C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1752207-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1752207-20 07/08/24 17:19 • (DUP) R4091275-3 07/08/24 17:19

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	su	su		%		%
pH	8.02	8.01	1	0.125		1

Sample Narrative:

OS: 8.02 at 22.1C

DUP: 8.01 at 22.2C

Laboratory Control Sample (LCS)

(LCS) R4091275-1 07/08/24 17:19

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

Sample Narrative:

LCS: 10.02 at 22.7C

Method Blank (MB)

(MB) R4090189-1 07/04/24 20:30

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

Sample Narrative:

BLANK: at 25C

L1751570-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1751570-07 07/04/24 20:30 • (DUP) R4090189-3 07/04/24 20:30

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	158	158	1	0.0635		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1752207-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1752207-17 07/04/24 20:30 • (DUP) R4090189-4 07/04/24 20:30

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	3640	3640	1	0.000		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4090189-2 07/04/24 20:30

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	746	102	85.0-115	

Sample Narrative:

LCS: at 25C

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R4091377-1 07/09/24 07:27

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

Sample Narrative:

BLANK: at 25C

L1751570-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1751570-05 07/09/24 07:27 • (DUP) R4091377-3 07/09/24 07:27

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	98.0	96.6	1	1.44		20

Sample Narrative:

OS: at 25C

DUP: at 25C

L1752207-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1752207-20 07/09/24 07:27 • (DUP) R4091377-4 07/09/24 07:27

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	3160	3190	1	0.945		20

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4091377-2 07/09/24 07:27

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	733	734	100	85.0-115	

Sample Narrative:

LCS: at 25C



Method Blank (MB)

(MB) R4090051-1 07/03/24 20:27

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

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

(LCS) R4090051-2 07/03/24 20:29 • (LCSD) R4090051-3 07/03/24 20:31

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	1.08	1.04	108	104	80.0-120			3.48	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R4091331-1 07/08/24 20:31

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

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

(LCS) R4091331-2 07/08/24 20:33 • (LCSD) R4091331-3 07/08/24 20:34

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	1.04	1.04	104	104	80.0-120			0.139	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4092042-1 07/10/24 12:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Copper	0.205	J	0.133	5.00
Lead	U		0.0990	2.00
Nickel	U		0.197	2.50
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500
Zinc	U		0.740	25.0

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

Laboratory Control Sample (LCS)

(LCS) R4092042-2 07/10/24 12:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	91.7	91.7	80.0-120	
Barium	100	90.6	90.6	80.0-120	
Cadmium	100	86.3	86.3	80.0-120	
Copper	100	94.0	94.0	80.0-120	
Lead	100	97.1	97.1	80.0-120	
Nickel	100	94.8	94.8	80.0-120	
Selenium	100	89.8	89.8	80.0-120	
Silver	20.0	18.8	94.1	80.0-120	
Zinc	100	90.2	90.2	80.0-120	

7
Gl

8
Al

9
Sc

L1751770-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1751770-04 07/10/24 12:20 • (MS) R4092042-5 07/10/24 12:30 • (MSD) R4092042-6 07/10/24 12:33

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	2.35	108	103	105	101	5	75.0-125			4.56	20
Barium	100	53.8	169	167	115	113	5	75.0-125			0.866	20
Cadmium	100	U	110	106	110	106	5	75.0-125			3.41	20
Copper	100	2.77	112	110	110	107	5	75.0-125			2.54	20
Lead	100	3.52	119	113	115	109	5	75.0-125			5.32	20
Nickel	100	3.21	112	108	109	105	5	75.0-125			3.24	20
Selenium	100	U	109	104	109	104	5	75.0-125			4.30	20
Silver	20.0	U	22.6	21.5	113	108	5	75.0-125			5.04	20
Zinc	100	13.6	121	116	108	102	5	75.0-125			4.57	20

Method Blank (MB)

(MB) R4091493-2 07/02/24 11:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0229	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	97.3			77.0-120

Laboratory Control Sample (LCS)

(LCS) R4091493-1 07/02/24 10:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.00	5.22	104	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			109	77.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4091017-2 07/05/24 05:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	100			75.0-131
(S) 4-Bromofluorobenzene	109			67.0-138
(S) 1,2-Dichloroethane-d4	92.1			70.0-130

Laboratory Control Sample (LCS)

(LCS) R4091017-1 07/05/24 03:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.123	98.4	70.0-123	
Toluene	0.125	0.119	95.2	75.0-121	
Ethylbenzene	0.125	0.127	102	74.0-126	
Xylenes, Total	0.375	0.389	104	72.0-127	
1,2,4-Trimethylbenzene	0.125	0.120	96.0	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.119	95.2	73.0-127	
(S) Toluene-d8			98.6	75.0-131	
(S) 4-Bromofluorobenzene			112	67.0-138	
(S) 1,2-Dichloroethane-d4			97.7	70.0-130	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4090503-2 07/03/24 20:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
(S) Toluene-d8	98.8			75.0-131
(S) 4-Bromofluorobenzene	103			67.0-138
(S) 1,2-Dichloroethane-d4	98.8			70.0-130

Laboratory Control Sample (LCS)

(LCS) R4090503-1 07/03/24 18:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.115	92.0	70.0-123	
Toluene	0.125	0.109	87.2	75.0-121	
Ethylbenzene	0.125	0.108	86.4	74.0-126	
Xylenes, Total	0.375	0.327	87.2	72.0-127	
1,2,4-Trimethylbenzene	0.125	0.115	92.0	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.114	91.2	73.0-127	
(S) Toluene-d8			98.2	75.0-131	
(S) 4-Bromofluorobenzene			100	67.0-138	
(S) 1,2-Dichloroethane-d4			104	70.0-130	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4090143-1 07/04/24 09:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C36 Motor Oil Range	U		0.274	4.00
(S) o-Terphenyl	55.0			18.0-148

Laboratory Control Sample (LCS)

(LCS) R4090143-2 07/04/24 09:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	40.0	80.0	50.0-150	
(S) o-Terphenyl			53.2	18.0-148	

L1751373-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1751373-05 07/04/24 09:19 • (MS) R4090143-3 07/04/24 09:31 • (MSD) R4090143-4 07/04/24 09:43

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	50.0	U	26.0	30.2	52.0	61.6	1	50.0-150			14.9	20
(S) o-Terphenyl					38.9	45.3		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4090487-2 07/04/24 01:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00209	0.00600
Anthracene	U		0.00230	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
Naphthalene	U		0.00408	0.0200
Pyrene	U		0.00200	0.00600
(S) p-Terphenyl-d14	102			23.0-120
(S) Nitrobenzene-d5	76.6			14.0-149
(S) 2-Fluorobiphenyl	86.1			34.0-125

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R4090487-1 07/04/24 01:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0800	0.0681	85.1	50.0-120	
Anthracene	0.0800	0.0725	90.6	50.0-126	
Benzo(a)anthracene	0.0800	0.0734	91.8	45.0-120	
Benzo(b)fluoranthene	0.0800	0.0704	88.0	42.0-121	
Benzo(k)fluoranthene	0.0800	0.0673	84.1	49.0-125	
Benzo(a)pyrene	0.0800	0.0680	85.0	42.0-120	
Chrysene	0.0800	0.0725	90.6	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0750	93.8	47.0-125	
Fluoranthene	0.0800	0.0790	98.8	49.0-129	
Fluorene	0.0800	0.0751	93.9	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0746	93.3	46.0-125	
1-Methylnaphthalene	0.0800	0.0730	91.3	51.0-121	
2-Methylnaphthalene	0.0800	0.0712	89.0	50.0-120	
Naphthalene	0.0800	0.0666	83.3	50.0-120	
Pyrene	0.0800	0.0706	88.3	43.0-123	

Laboratory Control Sample (LCS)

(LCS) R4090487-1 07/04/24 01:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) p-Terphenyl-d14			97.1	23.0-120	
(S) Nitrobenzene-d5			89.6	14.0-149	
(S) 2-Fluorobiphenyl			92.1	34.0-125	

L1751252-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1751252-04 07/04/24 02:47 • (MS) R4090487-3 07/04/24 03:04 • (MSD) R4090487-4 07/04/24 03:22

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	U	0.0588	0.0692	73.5	86.5	1	14.0-127			16.3	27
Anthracene	0.0800	U	0.0621	0.0726	77.6	90.8	1	10.0-145			15.6	30
Benzo(a)anthracene	0.0800	U	0.0646	0.0752	80.7	94.0	1	10.0-139			15.2	30
Benzo(b)fluoranthene	0.0800	U	0.0649	0.0739	81.1	92.4	1	10.0-140			13.0	36
Benzo(k)fluoranthene	0.0800	U	0.0576	0.0705	72.0	88.1	1	10.0-137			20.1	31
Benzo(a)pyrene	0.0800	U	0.0629	0.0730	78.6	91.3	1	10.0-141			14.9	31
Chrysene	0.0800	U	0.0653	0.0773	81.6	96.6	1	10.0-145			16.8	30
Dibenz(a,h)anthracene	0.0800	U	0.0641	0.0760	80.1	95.0	1	10.0-132			17.0	31
Fluoranthene	0.0800	U	0.0692	0.0818	86.5	102	1	10.0-153			16.7	33
Fluorene	0.0800	U	0.0650	0.0765	81.3	95.6	1	11.0-130			16.3	29
Indeno(1,2,3-cd)pyrene	0.0800	U	0.0657	0.0745	82.1	93.1	1	10.0-137			12.6	32
1-Methylnaphthalene	0.0800	U	0.0633	0.0754	79.1	94.3	1	10.0-142			17.4	28
2-Methylnaphthalene	0.0800	U	0.0619	0.0733	77.4	91.6	1	10.0-137			16.9	28
Naphthalene	0.0800	U	0.0574	0.0688	71.8	86.0	1	10.0-135			18.1	27
Pyrene	0.0800	U	0.0634	0.0745	79.3	93.1	1	10.0-148			16.1	35
(S) p-Terphenyl-d14					94.8	104		23.0-120				
(S) Nitrobenzene-d5					84.5	91.8		14.0-149				
(S) 2-Fluorobiphenyl					87.3	95.3		34.0-125				

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

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.

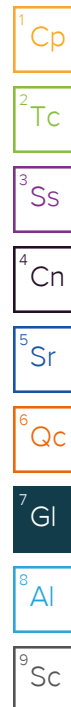
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

MDL	Method Detection Limit.
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.
U	Not detected at the Reporting Limit (or MDL where applicable).
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

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
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	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.



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