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ANALYTICAL REPORT

PREPARED FOR

Attn: Austin Lindsay
Topographic
1900 NW Expressway, Ste. 1500
Oklahoma City, Oklahoma 73118

Generated 4/10/2025 2:38:12 PM Revision 1

JOB DESCRIPTION

DEO Red Rocks, Colorado

JOB NUMBER

280-202469-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

myEOL

Job Notes

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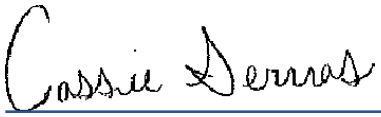

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Table of Contents

Definitions/Glossary

Client: Topographic
Job ID: 280-202469-1
Project/Site: DEO Red Rocks, Colorado

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
280-202469-1

REVISION

The report being provided is a revision of the original report sent on 2/27/2025. The report (revision 1) is being revised due to the client requesting a secured file. This will cause the original modified date to differ from the issued date.

Report Revision History:
Revision 1- 4/10/2025- Reason- The client requested to have the results in a secured PDF. This could create a discrepency between the creation/modified date vs secured date.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 1/31/2025 12:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.3°C, 0.6°C and 0.8°C.

Receipt Exceptions
The Terracore VOA vials were received with client labels on them. RR113-SA01 (280-202469-1) and RR113-BG01 (280-202469-2)

GC/MS VOA
Method 8260D: Surrogate recovery for the following samples was outside the upper control limit: RR113-SA01 (280-202469-1) and RR113-BG01 (280-202469-2). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8260D: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 280-683728 and analytical batch 280-683732. RR113-SA01 (280-202469-1) and RR113-BG01 (280-202469-2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270E_SIM: Surrogate recovery for the following samples was outside upper control limits: RR113-SA01 (280-202469-1) and (280-202416-G-1-B MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: Due to the matrix consisting of a nonhomogeneous rocky sand, the initial volumes used for the following samples RR113-SA01 (280-202469-1) and RR113-BG01 (280-202469-2) in preparation batch 280-683961 deviated from the standard procedure. 5g was used instead of the normal 15g. The reporting limits (RLs) have been adjusted proportionately.

Method 8015D_DRO: The continuing calibration verification (CCV) associated with batch 280-684157 recovered above the upper control limit for DRO (C10-C28). The samples associated with this CCV were non-detects for the affected analytes; therefore, the

Job ID: 280-202469-1 (Continued) Eurofins Denver

data have been reported. The associated samples impacted: RR113-BG01 (280-202469-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 29B_SAR_Calc - Soluble: The following samples were diluted to bring the concentration of target analytes within the calibration range: RR113-SA01 (280-202469-1) and RR113-BG01 (280-202469-2). Elevated reporting limits (RLs) are provided.

Method 6020B: The method blank associated with preparation batch 280-683485 and analytical batch 280-683829 contained Cu greater than one-half the reporting limit (RL). The samples were not re-analyzed because they were >10x the blank. The sample results have been qualified and reported.

Method 6020B: The instrument blank for analytical batch 280-683829 contained Ba greater than the reporting limit (RL), and were not reanalyzed because the samples were >10x the blank. The data have been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

Client Sample ID: RR113-SA01 — Lab Sample ID: 280-202469-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.095		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Benzo[a]anthracene	0.11		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Benzo[a]pyrene	0.10		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Benzo[b]fluoranthene	0.11		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Benzo[k]fluoranthene	0.10		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Chrysene	0.11		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Dibenz(a,h)anthracene	0.10		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Fluoranthene	0.11		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Fluorene	0.099		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
2-Methylnaphthalene	0.023	J	0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Acenaphthene	0.047		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.098		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Naphthalene	0.0098	J	0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
Pyrene	0.11		0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
1-Methylnaphthalene	0.022	J	0.031	0.0063	mg/Kg	1	☼	8270E SIM	Total/NA
ORO (C20-C38)	89		31	13	mg/Kg	1	☼	8015D	Total/NA
DRO (C10-C28) - RA	32		31	13	mg/Kg	1	☼	8015D	Total/NA
Sodium Adsorption Ratio	2.3		0.10	0.10	NONE	1		29B SAR	Soluble
Boron	14		9.9	4.9	mg/Kg	1	☼	6010D	Total/NA
Silver	0.052	J	0.099	0.025	mg/Kg	1	☼	6020B	Total/NA
Arsenic	6.9		0.20	0.049	mg/Kg	1	☼	6020B	Total/NA
Barium	270	^2	0.40	0.15	mg/Kg	1	☼	6020B	Total/NA
Cadmium	0.31		0.099	0.025	mg/Kg	1	☼	6020B	Total/NA
Chromium	21		0.59	0.25	mg/Kg	1	☼	6020B	Total/NA
Copper	16	B	0.59	0.30	mg/Kg	1	☼	6020B	Total/NA
Nickel	16		0.59	0.25	mg/Kg	1	☼	6020B	Total/NA
Lead	12		0.40	0.15	mg/Kg	1	☼	6020B	Total/NA
Selenium	0.38		0.20	0.049	mg/Kg	1	☼	6020B	Total/NA
Zinc	57		2.0	0.99	mg/Kg	1	☼	6020B	Total/NA
Specific Conductance	3400		10	10	umho/cm	1		29B_EC	Total/NA
Electrical Conductivity	8900		10	10	umho/cm	1		29B_EC	Total/NA
pH	8.1	HF	0.10	0.10	S.U.	1		29B_pH	Total/NA
Temperature	17	HF	0.10	0.10	Deg. C	1		29B_pH	Total/NA

Client Sample ID: RR113-BG01 — Lab Sample ID: 280-202469-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.0078	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
Benzo[a]anthracene	0.0080	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
Benzo[a]pyrene	0.0078	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
Benzo[b]fluoranthene	0.0089	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
Benzo[k]fluoranthene	0.0086	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
Chrysene	0.0080	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
Dibenz(a,h)anthracene	0.0091	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
Fluoranthene	0.0081	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
Fluorene	0.012	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
2-Methylnaphthalene	0.0079	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
Acenaphthene	0.0090	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.0090	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
Pyrene	0.0079	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA
1-Methylnaphthalene	0.0076	J	0.033	0.0066	mg/Kg	1	☼	8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RR113-BG01 (Continued)

Lab Sample ID: 280-202469-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium Adsorption Ratio	17		0.10	0.10	NONE	1		29B SAR	Soluble
Boron	13		9.8	4.9	mg/Kg	1	☼	6010D	Total/NA
Silver	0.047	J	0.098	0.024	mg/Kg	1	☼	6020B	Total/NA
Arsenic	6.8		0.20	0.049	mg/Kg	1	☼	6020B	Total/NA
Barium	390	^2	0.39	0.15	mg/Kg	1	☼	6020B	Total/NA
Cadmium	0.29		0.098	0.024	mg/Kg	1	☼	6020B	Total/NA
Chromium	24		0.59	0.24	mg/Kg	1	☼	6020B	Total/NA
Copper	17	B	0.59	0.29	mg/Kg	1	☼	6020B	Total/NA
Nickel	17		0.59	0.24	mg/Kg	1	☼	6020B	Total/NA
Lead	12		0.39	0.15	mg/Kg	1	☼	6020B	Total/NA
Selenium	0.57		0.20	0.049	mg/Kg	1	☼	6020B	Total/NA
Zinc	63		2.0	0.98	mg/Kg	1	☼	6020B	Total/NA
Specific Conductance	550		10	10	umho/cm	1		29B_EC	Total/NA
Electrical Conductivity	910		10	10	umho/cm	1		29B_EC	Total/NA
pH	8.9	HF	0.10	0.10	S.U.	1		29B_pH	Total/NA
Temperature	17	HF	0.10	0.10	Deg. C	1		29B_pH	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET DEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET DEN
8015D	Gasoline Range Organics (GRO) (GC)	SW846	EET DEN
8015D	Diesel Range Organics (DRO) (GC)	SW846	EET DEN
29B SAR	Sodium Adsorption Ratio	LA	EET HOU
6010D	Metals (ICP)	SW846	EET DEN
6020B	Metals (ICP/MS)	SW846	EET DEN
29B_EC	Conductivity, Electrical	LA	EET HOU
29B_pH	pH	LA	EET HOU
7196A	Chromium, Hexavalent	SW846	EET HOU
D 2216	Percent Moisture	ASTM	EET DEN
29B	Preparation, Dry, Grind and Sieve	LA	EET HOU
29B	Preparation, Sodium Absorption Ratio	LA	EET HOU
3050B	Preparation, Metals	SW846	EET DEN
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	EET HOU
3546	Microwave Extraction	SW846	EET DEN
5030A	Purge and Trap	SW846	EET DEN
5035	Closed System Purge and Trap	SW846	EET DEN
Sat Paste Ext	Saturated Paste Extraction	TAL SOP	EET HOU

Protocol References:

ASTM = ASTM International
LA = Statewide Order No. 29-B, State Of Louisianna
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Sample Summary

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-202469-1	RR113-SA01	Solid	01/30/25 07:15	01/31/25 12:15
280-202469-2	RR113-BG01	Solid	01/30/25 07:41	01/31/25 12:15

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Client Sample ID: RR113-SA01
Date Collected: 01/30/25 07:15
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-1
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0048	0.00096	mg/Kg	☼	01/30/25 07:15	02/05/25 14:28	1
1,2,4-Trimethylbenzene	ND		0.0048	0.00096	mg/Kg	☼	01/30/25 07:15	02/05/25 14:28	1
Naphthalene	ND		4.8	0.96	ug/Kg	☼	01/30/25 07:15	02/05/25 14:28	1
Ethylbenzene	ND		0.0048	0.00096	mg/Kg	☼	01/30/25 07:15	02/05/25 14:28	1
1,3,5-Trimethylbenzene	ND		0.0048	0.00096	mg/Kg	☼	01/30/25 07:15	02/05/25 14:28	1
Toluene	ND		0.0048	0.0019	mg/Kg	☼	01/30/25 07:15	02/05/25 14:28	1
Xylenes, Total	ND		0.0048	0.00096	mg/Kg	☼	01/30/25 07:15	02/05/25 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*123*	*S1+*	*80 - 120*	*01/30/25 07:15*	*02/05/25 14:28*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*	*01/30/25 07:15*	*02/05/25 14:28*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*	*01/30/25 07:15*	*02/05/25 14:28*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*	*01/30/25 07:15*	*02/05/25 14:28*	*1*

Client Sample ID: RR113-BG01
Date Collected: 01/30/25 07:41
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-2
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0047	0.00093	mg/Kg	☼	01/30/25 07:41	02/05/25 14:48	1
1,2,4-Trimethylbenzene	ND		0.0047	0.00093	mg/Kg	☼	01/30/25 07:41	02/05/25 14:48	1
Naphthalene	ND		4.7	0.93	ug/Kg	☼	01/30/25 07:41	02/05/25 14:48	1
Ethylbenzene	ND		0.0047	0.00093	mg/Kg	☼	01/30/25 07:41	02/05/25 14:48	1
1,3,5-Trimethylbenzene	ND		0.0047	0.00093	mg/Kg	☼	01/30/25 07:41	02/05/25 14:48	1
Toluene	ND		0.0047	0.0019	mg/Kg	☼	01/30/25 07:41	02/05/25 14:48	1
Xylenes, Total	ND		0.0047	0.00093	mg/Kg	☼	01/30/25 07:41	02/05/25 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*134*	*S1+*	*80 - 120*	*01/30/25 07:41*	*02/05/25 14:48*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*	*01/30/25 07:41*	*02/05/25 14:48*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*	*01/30/25 07:41*	*02/05/25 14:48*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*	*01/30/25 07:41*	*02/05/25 14:48*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Client Sample ID: RR113-SA01
Date Collected: 01/30/25 07:15
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-1
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.095**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
Benzo[a]anthracene	**0.11**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
Benzo[a]pyrene	**0.10**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
Benzo[b]fluoranthene	**0.11**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
Benzo[k]fluoranthene	**0.10**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
Chrysene	**0.11**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
Dibenz(a,h)anthracene	**0.10**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
Fluoranthene	**0.11**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
Fluorene	**0.099**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
2-Methylnaphthalene	**0.023**	**J**	0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
Acenaphthene	**0.047**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
Indeno[1,2,3-cd]pyrene	**0.098**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
Naphthalene	**0.0098**	**J**	0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Client Sample ID: RR113-SA01
Date Collected: 01/30/25 07:15
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-1
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	**0.11**		0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1
1-Methylnaphthalene	**0.022**	**J**	0.031	0.0063	mg/Kg	☼	02/06/25 09:47	02/07/25 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*124*	*S1+*	*46 - 115*	*02/06/25 09:47*	*02/07/25 16:40*	*1*
Nitrobenzene-d5	*65*		*22 - 120*	*02/06/25 09:47*	*02/07/25 16:40*	*1*
Terphenyl-d14	*216*	*S1+*	*46 - 122*	*02/06/25 09:47*	*02/07/25 16:40*	*1*
2-methylnaphthalene-d10	*59*		*24 - 150*	*02/06/25 09:47*	*02/07/25 16:40*	*1*
Fluoranthene-d10	*56*		*45 - 121*	*02/06/25 09:47*	*02/07/25 16:40*	*1*

Client Sample ID: RR113-BG01
Date Collected: 01/30/25 07:41
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-2
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	**0.0078**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Benzo[a]anthracene	**0.0080**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Benzo[a]pyrene	**0.0078**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Benzo[b]fluoranthene	**0.0089**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Benzo[k]fluoranthene	**0.0086**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Chrysene	**0.0080**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Dibenz(a,h)anthracene	**0.0091**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Fluoranthene	**0.0081**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Fluorene	**0.012**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
2-Methylnaphthalene	**0.0079**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Acenaphthene	**0.0090**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Indeno[1,2,3-cd]pyrene	**0.0090**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Naphthalene	ND		0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
Pyrene	**0.0079**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1
1-Methylnaphthalene	**0.0076**	**J**	0.033	0.0066	mg/Kg	☼	02/06/25 09:47	02/07/25 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*102*		*46 - 115*	*02/06/25 09:47*	*02/07/25 17:07*	*1*
Nitrobenzene-d5	*69*		*22 - 120*	*02/06/25 09:47*	*02/07/25 17:07*	*1*
Terphenyl-d14	*94*		*46 - 122*	*02/06/25 09:47*	*02/07/25 17:07*	*1*
2-methylnaphthalene-d10	*68*		*24 - 150*	*02/06/25 09:47*	*02/07/25 17:07*	*1*
Fluoranthene-d10	*71*		*45 - 121*	*02/06/25 09:47*	*02/07/25 17:07*	*1*

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Client Sample ID: RR113-SA01
Date Collected: 01/30/25 07:15
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-1
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		2.0	0.74	mg/Kg	☼	01/30/25 07:15	02/07/25 00:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*	*01/30/25 07:15*	*02/07/25 00:55*	*1*

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Client Sample ID: RR113-BG01
Date Collected: 01/30/25 07:41
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-2
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		1.9	0.73	mg/Kg	☼	01/30/25 07:41	02/07/25 01:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*	*01/30/25 07:41*	*02/07/25 01:16*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Client Sample ID: RR113-SA01
Date Collected: 01/30/25 07:15
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-1
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ORO (C20-C38)	**89**		31	13	mg/Kg	☼	02/07/25 09:51	02/11/25 10:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*72*		*48 - 139*	*02/07/25 09:51*	*02/11/25 10:46*	*1*
n-Octacosane (Surr)	*69*		*33 - 136*	*02/07/25 09:51*	*02/11/25 10:46*	*1*

Client Sample ID: RR113-BG01
Date Collected: 01/30/25 07:41
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-2
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		33	13	mg/Kg	☼	02/07/25 09:51	02/11/25 11:05	1
ORO (C20-C38)	ND		33	13	mg/Kg	☼	02/07/25 09:51	02/11/25 11:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*52*		*48 - 139*	*02/07/25 09:51*	*02/11/25 11:05*	*1*
n-Octacosane (Surr)	*45*		*33 - 136*	*02/07/25 09:51*	*02/11/25 11:05*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC) - RA

Client Sample ID: RR113-SA01
Date Collected: 01/30/25 07:15
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-1
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	**32**		31	13	mg/Kg	☼	02/07/25 09:51	02/13/25 00:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*65*		*48 - 139*	*02/07/25 09:51*	*02/13/25 00:29*	*1*
n-Octacosane (Surr)	*62*		*33 - 136*	*02/07/25 09:51*	*02/13/25 00:29*	*1*

Method: LA 29B SAR - Sodium Adsorption Ratio - Soluble

Client Sample ID: RR113-SA01
Date Collected: 01/30/25 07:15
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-1
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	**2.3**		0.10	0.10	NONE		02/05/25 16:42	02/13/25 15:10	1

Method: LA 29B SAR - Sodium Adsorption Ratio - Soluble

Client Sample ID: RR113-BG01
Date Collected: 01/30/25 07:41
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-2
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	17		0.10	0.10	NONE		02/05/25 16:42	02/13/25 15:10	1

Method: SW846 6010D - Metals (ICP)

Client Sample ID: RR113-SA01
Date Collected: 01/30/25 07:15
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-1
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	14		9.9	4.9	mg/Kg	☼	02/04/25 15:00	02/05/25 16:32	1

Client Sample ID: RR113-BG01
Date Collected: 01/30/25 07:41
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-2
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	13		9.8	4.9	mg/Kg	☼	02/04/25 15:00	02/05/25 16:35	1

Method: SW846 6020B - Metals (ICP/MS)

Client Sample ID: RR113-SA01
Date Collected: 01/30/25 07:15
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-1
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.052	J	0.099	0.025	mg/Kg	☼	02/04/25 15:00	02/05/25 15:36	1
Arsenic	6.9		0.20	0.049	mg/Kg	☼	02/04/25 15:00	02/05/25 15:36	1
Barium	270	^2	0.40	0.15	mg/Kg	☼	02/04/25 15:00	02/05/25 15:36	1
Cadmium	0.31		0.099	0.025	mg/Kg	☼	02/04/25 15:00	02/05/25 15:36	1
Chromium	21		0.59	0.25	mg/Kg	☼	02/04/25 15:00	02/05/25 15:36	1
Copper	16	B	0.59	0.30	mg/Kg	☼	02/04/25 15:00	02/05/25 15:36	1
Nickel	16		0.59	0.25	mg/Kg	☼	02/04/25 15:00	02/05/25 15:36	1
Lead	12		0.40	0.15	mg/Kg	☼	02/04/25 15:00	02/05/25 15:36	1
Selenium	0.38		0.20	0.049	mg/Kg	☼	02/04/25 15:00	02/05/25 15:36	1
Zinc	57		2.0	0.99	mg/Kg	☼	02/04/25 15:00	02/05/25 15:36	1

Client Sample ID: RR113-BG01
Date Collected: 01/30/25 07:41
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-2
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.047	J	0.098	0.024	mg/Kg	☼	02/04/25 15:00	02/05/25 15:40	1
Arsenic	6.8		0.20	0.049	mg/Kg	☼	02/04/25 15:00	02/05/25 15:40	1
Barium	390	^2	0.39	0.15	mg/Kg	☼	02/04/25 15:00	02/05/25 15:40	1
Cadmium	0.29		0.098	0.024	mg/Kg	☼	02/04/25 15:00	02/05/25 15:40	1
Chromium	24		0.59	0.24	mg/Kg	☼	02/04/25 15:00	02/05/25 15:40	1
Copper	17	B	0.59	0.29	mg/Kg	☼	02/04/25 15:00	02/05/25 15:40	1
Nickel	17		0.59	0.24	mg/Kg	☼	02/04/25 15:00	02/05/25 15:40	1
Lead	12		0.39	0.15	mg/Kg	☼	02/04/25 15:00	02/05/25 15:40	1
Selenium	0.57		0.20	0.049	mg/Kg	☼	02/04/25 15:00	02/05/25 15:40	1
Zinc	63		2.0	0.98	mg/Kg	☼	02/04/25 15:00	02/05/25 15:40	1

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

General Chemistry

Client Sample ID: RR113-SA01
Date Collected: 01/30/25 07:15
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-1
Matrix: Solid
Percent Solids: 82.4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance (LA 29B_EC)	3400		10	10	umho/cm		02/11/25 15:07	02/16/25 09:56	1
Electrical Conductivity (LA 29B_EC)	8900		10	10	umho/cm		02/11/25 15:07	02/16/25 09:56	1
pH (LA 29B_pH)	8.1	HF	0.10	0.10	S.U.		02/11/25 15:07	02/16/25 09:59	1
Temperature (LA 29B_pH)	17	HF	0.10	0.10	Deg. C		02/11/25 15:07	02/16/25 09:59	1
Chromium, hexavalent (SW846 7196A)	ND		0.48	0.15	mg/Kg	☼	02/06/25 13:20	02/11/25 14:40	1
Percent Moisture (ASTM D 2216)	17.6		0.1	0.1	%			01/31/25 15:54	1

Client Sample ID: RR113-BG01
Date Collected: 01/30/25 07:41
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-2
Matrix: Solid
Percent Solids: 82.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance (LA 29B_EC)	550		10	10	umho/cm		02/11/25 15:07	02/16/25 09:56	1
Electrical Conductivity (LA 29B_EC)	910		10	10	umho/cm		02/11/25 15:07	02/16/25 09:56	1
pH (LA 29B_pH)	8.9	HF	0.10	0.10	S.U.		02/11/25 15:07	02/16/25 09:59	1
Temperature (LA 29B_pH)	17	HF	0.10	0.10	Deg. C		02/11/25 15:07	02/16/25 09:59	1
Chromium, hexavalent (SW846 7196A)	ND		0.48	0.15	mg/Kg	☼	02/06/25 13:20	02/11/25 14:40	1
Percent Moisture (ASTM D 2216)	17.4		0.1	0.1	%			01/31/25 15:54	1

Surrogate Summary

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
280-202469-1	RR113-SA01	123 S1+	98	102	105
280-202469-2	RR113-BG01	134 S1+	97	98	103
LCS 280-683728/2-A	Lab Control Sample	116	98	101	103
LCSD 280-683728/3-A	Lab Control Sample Dup	115	99	102	103
MB 280-683728/1-A	Method Blank	118	101	99	104

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)				
		FBP	NBZ	TPHL	2MN	FLN
Lab Sample ID	Client Sample ID	(46-115)	(22-120)	(46-122)	(24-150)	(45-121)
280-202469-1	RR113-SA01	124 S1+	65	216 S1+	59	56
280-202469-2	RR113-BG01	102	69	94	68	71
LCS 280-683840/2-A	Lab Control Sample	88	61	67	66	65
MB 280-683840/1-A	Method Blank	67	51	82	55	71

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14
2MN = 2-methylnaphthalene-d10
FLN = Fluoranthene-d10

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(80-120)
280-202469-1	RR113-SA01	101
280-202469-2	RR113-BG01	103
LCS 280-683935/1-A	Lab Control Sample	107
LCSD 280-683935/2-A	Lab Control Sample Dup	108
MB 280-683935/3-A	Method Blank	106

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: 8015D - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		OTPH	OTCN
Lab Sample ID	Client Sample ID	(48-139)	(33-136)
280-202469-1	RR113-SA01	72	69

Surrogate Summary

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	OTPH (48-139)	OTCN (33-136)								
280-202469-1 - RA	RR113-SA01	65	62								
280-202469-2	RR113-BG01	52	45								
LCS 280-683961/2-A	Lab Control Sample	86	88								
MB 280-683961/1-A	Method Blank	90	90								

Surrogate Legend

OTPH = o-Terphenyl (Surr)

OTCN = n-Octacosane (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 280-683728/1-A
Matrix: Solid
Analysis Batch: 683732

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683728

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0050	0.0010	mg/Kg		02/05/25 07:00	02/05/25 12:10	1
1,2,4-Trimethylbenzene	ND		0.0050	0.0010	mg/Kg		02/05/25 07:00	02/05/25 12:10	1
Naphthalene	ND		5.0	1.0	ug/Kg		02/05/25 07:00	02/05/25 12:10	1
Ethylbenzene	ND		0.0050	0.0010	mg/Kg		02/05/25 07:00	02/05/25 12:10	1
1,3,5-Trimethylbenzene	ND		0.0050	0.0010	mg/Kg		02/05/25 07:00	02/05/25 12:10	1
Toluene	ND		0.0050	0.0020	mg/Kg		02/05/25 07:00	02/05/25 12:10	1
Xylenes, Total	ND		0.0050	0.0010	mg/Kg		02/05/25 07:00	02/05/25 12:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*80 - 120*	*02/05/25 07:00*	*02/05/25 12:10*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*	*02/05/25 07:00*	*02/05/25 12:10*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*	*02/05/25 07:00*	*02/05/25 12:10*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*	*02/05/25 07:00*	*02/05/25 12:10*	*1*

Lab Sample ID: LCS 280-683728/2-A
Matrix: Solid
Analysis Batch: 683732

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683728

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.0500	0.0458		mg/Kg		92	76 - 120		
1,2,4-Trimethylbenzene			0.0500	0.0471		mg/Kg		94	71 - 121		
Naphthalene			50.0	47.3		ug/Kg		95	73 - 120		
Ethylbenzene			0.0500	0.0464		mg/Kg		93	75 - 120		
1,3,5-Trimethylbenzene			0.0500	0.0479		mg/Kg		96	73 - 121		
Toluene			0.0500	0.0462		mg/Kg		92	72 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*116*		*80 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*

Lab Sample ID: LCSD 280-683728/3-A
Matrix: Solid
Analysis Batch: 683732

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 683728

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.0500	0.0490		mg/Kg		98	76 - 120	7	20
1,2,4-Trimethylbenzene			0.0500	0.0511		mg/Kg		102	71 - 121	8	20
Naphthalene			50.0	54.2		ug/Kg		108	73 - 120	13	20
Ethylbenzene			0.0500	0.0493		mg/Kg		99	75 - 120	6	20
1,3,5-Trimethylbenzene			0.0500	0.0524		mg/Kg		105	73 - 121	9	20
Toluene			0.0500	0.0482		mg/Kg		96	72 - 120	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*115*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 280-683728/3-A
Matrix: Solid
Analysis Batch: 683732

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 683728

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 280-683840/1-A
Matrix: Solid
Analysis Batch: 683968

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683840

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Benzo[a]anthracene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Benzo[a]pyrene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Benzo[b]fluoranthene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Benzo[k]fluoranthene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Chrysene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Dibenz(a,h)anthracene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Fluoranthene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Fluorene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
2-Methylnaphthalene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Acenaphthene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Indeno[1,2,3-cd]pyrene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Naphthalene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
Pyrene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1
1-Methylnaphthalene	ND		0.010	0.0020	mg/Kg		02/06/25 09:47	02/07/25 10:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 115*	*02/06/25 09:47*	*02/07/25 10:24*	*1*
Nitrobenzene-d5	*51*		*22 - 120*	*02/06/25 09:47*	*02/07/25 10:24*	*1*
Terphenyl-d14	*82*		*46 - 122*	*02/06/25 09:47*	*02/07/25 10:24*	*1*
2-methylnaphthalene-d10	*55*		*24 - 150*	*02/06/25 09:47*	*02/07/25 10:24*	*1*
Fluoranthene-d10	*71*		*45 - 121*	*02/06/25 09:47*	*02/07/25 10:24*	*1*

Lab Sample ID: LCS 280-683840/2-A
Matrix: Solid
Analysis Batch: 683968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683840

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Anthracene	0.0600	0.0407		mg/Kg		68	34 - 120
Benzo[a]anthracene	0.0600	0.0408		mg/Kg		68	43 - 120
Benzo[a]pyrene	0.0600	0.0415		mg/Kg		69	29 - 129
Benzo[b]fluoranthene	0.0600	0.0419		mg/Kg		70	41 - 127
Benzo[k]fluoranthene	0.0600	0.0428		mg/Kg		71	41 - 126
Chrysene	0.0600	0.0449		mg/Kg		75	43 - 122
Dibenz(a,h)anthracene	0.0600	0.0396		mg/Kg		66	34 - 135
Fluoranthene	0.0600	0.0398		mg/Kg		66	43 - 120
Fluorene	0.0600	0.0415		mg/Kg		69	36 - 120
2-Methylnaphthalene	0.0600	0.0396		mg/Kg		66	24 - 120

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 280-683840/2-A
Matrix: Solid
Analysis Batch: 683968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683840

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			0.0600	0.0389		mg/Kg		65	29 - 120		
Indeno[1,2,3-cd]pyrene			0.0600	0.0388		mg/Kg		65	33 - 133		
Naphthalene			0.0600	0.0353		mg/Kg		59	23 - 120		
Pyrene			0.0600	0.0397		mg/Kg		66	43 - 121		
1-Methylnaphthalene			0.0600	0.0394		mg/Kg		66	25 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*46 - 115*
Nitrobenzene-d5	*61*		*22 - 120*
Terphenyl-d14	*67*		*46 - 122*
2-methylnaphthalene-d10	*66*		*24 - 150*
Fluoranthene-d10	*65*		*45 - 121*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 280-683935/3-A
Matrix: Solid
Analysis Batch: 683934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683935

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		2.0	0.75	mg/Kg		02/06/25 16:46	02/06/25 20:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*	*02/06/25 16:46*	*02/06/25 20:14*	*1*

Lab Sample ID: LCS 280-683935/1-A
Matrix: Solid
Analysis Batch: 683934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683935

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
GRO (C6-C10)			9.99	8.86		mg/Kg		89	70 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*

Lab Sample ID: LCSD 280-683935/2-A
Matrix: Solid
Analysis Batch: 683934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 683935

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
GRO (C6-C10)			9.99	8.48		mg/Kg		85	70 - 120	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 280-683961/1-A
Matrix: Solid
Analysis Batch: 684157

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683961

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28)	ND		10	4.0	mg/Kg		02/07/25 09:51	02/11/25 01:50	1
ORO (C20-C38)	ND		10	4.0	mg/Kg		02/07/25 09:51	02/11/25 01:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*90*		*48 - 139*	*02/07/25 09:51*	*02/11/25 01:50*	*1*
n-Octacosane (Surr)	*90*		*33 - 136*	*02/07/25 09:51*	*02/11/25 01:50*	*1*

Lab Sample ID: LCS 280-683961/2-A
Matrix: Solid
Analysis Batch: 684157

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683961

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
DRO (C10-C28)	133	126		mg/Kg		95	46 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl (Surr)	*86*		*48 - 139*
n-Octacosane (Surr)	*88*		*33 - 136*

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 280-683485/1-A
Matrix: Solid
Analysis Batch: 683854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683485

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		10	5.0	mg/Kg		02/04/25 15:00	02/05/25 16:01	1

Lab Sample ID: LCS 280-683485/2-A
Matrix: Solid
Analysis Batch: 683854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683485

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	200	195		mg/Kg		97	85 - 115

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-683485/1-A
Matrix: Solid
Analysis Batch: 683829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683485

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.10	0.025	mg/Kg		02/04/25 15:00	02/05/25 15:00	1
Arsenic	ND		0.20	0.050	mg/Kg		02/04/25 15:00	02/05/25 15:00	1
Barium	ND		0.40	0.15	mg/Kg		02/04/25 15:00	02/05/25 15:00	1
Cadmium	ND		0.10	0.025	mg/Kg		02/04/25 15:00	02/05/25 15:00	1
Chromium	ND		0.60	0.25	mg/Kg		02/04/25 15:00	02/05/25 15:00	1
Copper	0.407	J	0.60	0.30	mg/Kg		02/04/25 15:00	02/05/25 15:00	1
Nickel	ND		0.60	0.25	mg/Kg		02/04/25 15:00	02/05/25 15:00	1
Lead	ND		0.40	0.15	mg/Kg		02/04/25 15:00	02/05/25 15:00	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-683485/1-A
Matrix: Solid
Analysis Batch: 683829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683485

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.20	0.050	mg/Kg		02/04/25 15:00	02/05/25 15:00	1
Zinc	ND		2.0	1.0	mg/Kg		02/04/25 15:00	02/05/25 15:00	1

Lab Sample ID: LCS 280-683485/23-A
Matrix: Solid
Analysis Batch: 683829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683485

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	20.0	19.8		mg/Kg		99	85 - 115
Arsenic	20.0	19.1		mg/Kg		96	85 - 115
Barium	20.0	19.8		mg/Kg		99	85 - 115
Cadmium	20.0	20.4		mg/Kg		102	85 - 115
Chromium	20.0	19.4		mg/Kg		97	85 - 115
Copper	20.0	20.1		mg/Kg		100	85 - 115
Nickel	20.0	19.9		mg/Kg		99	85 - 115
Lead	20.0	19.8		mg/Kg		99	85 - 115
Selenium	20.0	19.9		mg/Kg		99	85 - 115
Zinc	20.0	19.7		mg/Kg		99	85 - 115

Method: 29B_EC - Conductivity, Electrical

Lab Sample ID: MB 860-216935/2
Matrix: Solid
Analysis Batch: 216935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		10	10	umho/cm			02/16/25 09:56	1
Electrical Conductivity	ND		10	10	umho/cm			02/16/25 09:56	1

Lab Sample ID: LCS 860-216935/3
Matrix: Solid
Analysis Batch: 216935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	1410	1420		umho/cm		100	90 - 110
Electrical Conductivity	1410	1420		umho/cm		100	90 - 110

Lab Sample ID: LCSD 860-216935/4
Matrix: Solid
Analysis Batch: 216935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Specific Conductance	1410	1410		umho/cm		100	90 - 110	0	20
Electrical Conductivity	1410	1410		umho/cm		100	90 - 110	0	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 860-215115/3-A
Matrix: Solid
Analysis Batch: 216024

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 215115

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.40	0.12	mg/Kg		02/06/25 13:20	02/11/25 14:40	1

Lab Sample ID: LCS 860-215115/4-A
Matrix: Solid
Analysis Batch: 216024

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 215115

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chromium, hexavalent			20.0	19.6		mg/Kg		98	80 - 120		

Lab Sample ID: LCSD 860-215115/5-A
Matrix: Solid
Analysis Batch: 216024

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 215115

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent			20.0	19.4		mg/Kg		97	80 - 120	1	20

QC Association Summary

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

GC/MS VOA

Prep Batch: 683728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	5035	
280-202469-2	RR113-BG01	Total/NA	Solid	5035	
MB 280-683728/1-A	Method Blank	Total/NA	Solid	5035	
LCS 280-683728/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 280-683728/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 683732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	8260D	683728
280-202469-2	RR113-BG01	Total/NA	Solid	8260D	683728
MB 280-683728/1-A	Method Blank	Total/NA	Solid	8260D	683728
LCS 280-683728/2-A	Lab Control Sample	Total/NA	Solid	8260D	683728
LCSD 280-683728/3-A	Lab Control Sample Dup	Total/NA	Solid	8260D	683728

GC/MS Semi VOA

Prep Batch: 683840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	3546	
280-202469-2	RR113-BG01	Total/NA	Solid	3546	
MB 280-683840/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-683840/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 683968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	8270E SIM	683840
280-202469-2	RR113-BG01	Total/NA	Solid	8270E SIM	683840
MB 280-683840/1-A	Method Blank	Total/NA	Solid	8270E SIM	683840
LCS 280-683840/2-A	Lab Control Sample	Total/NA	Solid	8270E SIM	683840

GC VOA

Analysis Batch: 683934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	8015D	683935
280-202469-2	RR113-BG01	Total/NA	Solid	8015D	683935
MB 280-683935/3-A	Method Blank	Total/NA	Solid	8015D	683935
LCS 280-683935/1-A	Lab Control Sample	Total/NA	Solid	8015D	683935
LCSD 280-683935/2-A	Lab Control Sample Dup	Total/NA	Solid	8015D	683935

Prep Batch: 683935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	5030A	
280-202469-2	RR113-BG01	Total/NA	Solid	5030A	
MB 280-683935/3-A	Method Blank	Total/NA	Solid	5030A	
LCS 280-683935/1-A	Lab Control Sample	Total/NA	Solid	5030A	
LCSD 280-683935/2-A	Lab Control Sample Dup	Total/NA	Solid	5030A	

QC Association Summary

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

GC Semi VOA

Prep Batch: 683961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	3546	
280-202469-1 - RA	RR113-SA01	Total/NA	Solid	3546	
280-202469-2	RR113-BG01	Total/NA	Solid	3546	
MB 280-683961/1-A	Method Blank	Total/NA	Solid	3546	
LCS 280-683961/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 684157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	8015D	683961
280-202469-2	RR113-BG01	Total/NA	Solid	8015D	683961
MB 280-683961/1-A	Method Blank	Total/NA	Solid	8015D	683961
LCS 280-683961/2-A	Lab Control Sample	Total/NA	Solid	8015D	683961

Analysis Batch: 684474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1 - RA	RR113-SA01	Total/NA	Solid	8015D	683961

Metals

Prep Batch: 214912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Soluble	Solid	29B	
280-202469-2	RR113-BG01	Soluble	Solid	29B	

Analysis Batch: 216588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Soluble	Solid	29B SAR	214912
280-202469-2	RR113-BG01	Soluble	Solid	29B SAR	214912

Prep Batch: 683485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	3050B	
280-202469-2	RR113-BG01	Total/NA	Solid	3050B	
MB 280-683485/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 280-683485/23-A	Lab Control Sample	Total/NA	Solid	3050B	
LCS 280-683485/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 683829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	6020B	683485
280-202469-2	RR113-BG01	Total/NA	Solid	6020B	683485
MB 280-683485/1-A	Method Blank	Total/NA	Solid	6020B	683485
LCS 280-683485/23-A	Lab Control Sample	Total/NA	Solid	6020B	683485

Analysis Batch: 683854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	6010D	683485
280-202469-2	RR113-BG01	Total/NA	Solid	6010D	683485
MB 280-683485/1-A	Method Blank	Total/NA	Solid	6010D	683485
LCS 280-683485/2-A	Lab Control Sample	Total/NA	Solid	6010D	683485

QC Association Summary

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

General Chemistry

Prep Batch: 215115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	3060A	
280-202469-2	RR113-BG01	Total/NA	Solid	3060A	
MB 860-215115/3-A	Method Blank	Total/NA	Solid	3060A	
LCS 860-215115/4-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSD 860-215115/5-A	Lab Control Sample Dup	Total/NA	Solid	3060A	

Analysis Batch: 216024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	7196A	215115
280-202469-2	RR113-BG01	Total/NA	Solid	7196A	215115
MB 860-215115/3-A	Method Blank	Total/NA	Solid	7196A	215115
LCS 860-215115/4-A	Lab Control Sample	Total/NA	Solid	7196A	215115
LCSD 860-215115/5-A	Lab Control Sample Dup	Total/NA	Solid	7196A	215115

Prep Batch: 216043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	29B	
280-202469-2	RR113-BG01	Total/NA	Solid	29B	

Prep Batch: 216344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	Sat Paste Ext	216043
280-202469-2	RR113-BG01	Total/NA	Solid	Sat Paste Ext	216043

Analysis Batch: 216935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	29B_EC	216344
280-202469-2	RR113-BG01	Total/NA	Solid	29B_EC	216344
MB 860-216935/2	Method Blank	Total/NA	Solid	29B_EC	
LCS 860-216935/3	Lab Control Sample	Total/NA	Solid	29B_EC	
LCSD 860-216935/4	Lab Control Sample Dup	Total/NA	Solid	29B_EC	

Analysis Batch: 216936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	29B_pH	216344
280-202469-2	RR113-BG01	Total/NA	Solid	29B_pH	216344

Analysis Batch: 683339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-202469-1	RR113-SA01	Total/NA	Solid	D 2216	
280-202469-2	RR113-BG01	Total/NA	Solid	D 2216	

Lab Chronicle

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

Client Sample ID: RR113-SA01

Lab Sample ID: 280-202469-1

Date Collected: 01/30/25 07:15

Matrix: Solid

Date Received: 01/31/25 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	29B			30 g	30 mL	214912	02/05/25 16:42	PB	EET HOU
Soluble	Analysis	29B SAR		1			216588	02/13/25 15:10	DP	EET HOU
Total/NA	Prep	29B			137.47 g	121.19 g	216043	02/11/25 15:07	CT	EET HOU
Total/NA	Prep	Sat Paste Ext			59.98 g	1.0 mL	216344	02/12/25 16:10	CT	EET HOU
Total/NA	Analysis	29B_EC		1			216935	02/16/25 09:56	MR	EET HOU
Total/NA	Prep	29B			137.47 g	121.19 g	216043	02/11/25 15:07	CT	EET HOU
Total/NA	Prep	Sat Paste Ext			59.98 g	1.0 mL	216344	02/12/25 16:10	CT	EET HOU
Total/NA	Analysis	29B_pH		1			216936	02/16/25 09:59	MR	EET HOU
Total/NA	Analysis	D 2216		1			683339	01/31/25 15:54	JRR	EET DEN

Client Sample ID: RR113-SA01

Lab Sample ID: 280-202469-1

Date Collected: 01/30/25 07:15

Matrix: Solid

Date Received: 01/31/25 12:15

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.325 g	5 mL	683728	01/30/25 07:15	JLS	EET DEN
Total/NA	Analysis	8260D		1	5 g	5 mL	683732	02/05/25 14:28	JLS	EET DEN
Total/NA	Prep	3546			5.8 g	1 mL	683840	02/06/25 09:47	JC	EET DEN
Total/NA	Analysis	8270E SIM		1	200 uL	200 uL	683968	02/07/25 16:40	RJC	EET DEN
Total/NA	Prep	5030A			6.14 g	5 mL	683935	01/30/25 07:15	CCF	EET DEN
Total/NA	Analysis	8015D		1	0.1 mL	5 mL	683934	02/07/25 00:55	CCF	EET DEN
Total/NA	Prep	3546			5.8 g	1 mL	683961	02/07/25 09:51	CAR	EET DEN
Total/NA	Analysis	8015D		1			684157	02/11/25 10:46	MKW	EET DEN
Total/NA	Prep	3546	RA		5.8 g	1 mL	683961	02/07/25 09:51	CAR	EET DEN
Total/NA	Analysis	8015D	RA	1			684474	02/13/25 00:29	LKB	EET DEN
Total/NA	Prep	3050B			1.227 g	100 mL	683485	02/04/25 15:00	AMH	EET DEN
Total/NA	Analysis	6010D		1			683854	02/05/25 16:32	NKC	EET DEN
Total/NA	Prep	3050B			1.227 g	100 mL	683485	02/04/25 15:00	AMH	EET DEN
Total/NA	Analysis	6020B		1			683829	02/05/25 15:36	LMT	EET DEN
Total/NA	Prep	3060A			2.51 g	100 mL	215115	02/06/25 13:20	SCI	EET HOU
Total/NA	Analysis	7196A		1	25 mL	25 mL	216024	02/11/25 14:40	SCI	EET HOU

Client Sample ID: RR113-BG01

Lab Sample ID: 280-202469-2

Date Collected: 01/30/25 07:41

Matrix: Solid

Date Received: 01/31/25 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	29B			30 g	30 mL	214912	02/05/25 16:42	PB	EET HOU
Soluble	Analysis	29B SAR		1			216588	02/13/25 15:10	DP	EET HOU
Total/NA	Prep	29B			152.76 g	129.91 g	216043	02/11/25 15:07	CT	EET HOU
Total/NA	Prep	Sat Paste Ext			59.95 g	1.0 mL	216344	02/12/25 16:10	CT	EET HOU
Total/NA	Analysis	29B_EC		1			216935	02/16/25 09:56	MR	EET HOU
Total/NA	Prep	29B			152.76 g	129.91 g	216043	02/11/25 15:07	CT	EET HOU
Total/NA	Prep	Sat Paste Ext			59.95 g	1.0 mL	216344	02/12/25 16:10	CT	EET HOU
Total/NA	Analysis	29B_pH		1			216936	02/16/25 09:59	MR	EET HOU

Lab Chronicle

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

Client Sample ID: RR113-BG01
Date Collected: 01/30/25 07:41
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1			683339	01/31/25 15:54	JRR	EET DEN

Client Sample ID: RR113-BG01
Date Collected: 01/30/25 07:41
Date Received: 01/31/25 12:15

Lab Sample ID: 280-202469-2
Matrix: Solid
Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.505 g	5 mL	683728	01/30/25 07:41	JLS	EET DEN
Total/NA	Analysis	8260D		1	5 g	5 mL	683732	02/05/25 14:48	JLS	EET DEN
Total/NA	Prep	3546			5.5 g	1 mL	683840	02/06/25 09:47	JC	EET DEN
Total/NA	Analysis	8270E SIM		1	200 uL	200 uL	683968	02/07/25 17:07	RJC	EET DEN
Total/NA	Prep	5030A			6.252 g	5 mL	683935	01/30/25 07:41	CCF	EET DEN
Total/NA	Analysis	8015D		1	0.1 mL	5 mL	683934	02/07/25 01:16	CCF	EET DEN
Total/NA	Prep	3546			5.5 g	1 mL	683961	02/07/25 09:51	CAR	EET DEN
Total/NA	Analysis	8015D		1			684157	02/11/25 11:05	MKW	EET DEN
Total/NA	Prep	3050B			1.236 g	100 mL	683485	02/04/25 15:00	AMH	EET DEN
Total/NA	Analysis	6010D		1			683854	02/05/25 16:35	NKC	EET DEN
Total/NA	Prep	3050B			1.236 g	100 mL	683485	02/04/25 15:00	AMH	EET DEN
Total/NA	Analysis	6020B		1			683829	02/05/25 15:40	LMT	EET DEN
Total/NA	Prep	3060A			2.50 g	100 mL	215115	02/06/25 13:20	SCI	EET HOU
Total/NA	Analysis	7196A		1	25 mL	25 mL	216024	02/11/25 14:40	SCI	EET HOU

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Accreditation/Certification Summary

Client: Topographic
Project/Site: DEO Red Rocks, Colorado

Job ID: 280-202469-1

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-26
A2LA	ISO/IEC 17025	2907.01	10-31-26
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	11-30-25
Arizona	State	AZ0713	12-20-25
Arkansas DEQ	State	88-00687	04-02-25
California	State	2513	02-13-25
Colorado	Petroleum Storage Tank Program	2907.01 (A2LA)	10-31-26
Colorado	State	CO00026	06-30-25
Connecticut	State	PH-0686	09-30-26
Florida	NELAP	E87667	02-23-25
Georgia	State	4025	01-08-26
Illinois	NELAP	200017	05-31-25
Iowa	State	370	12-01-26
Kansas	NELAP	E-10166	03-06-25
Kentucky (WW)	State	KY98047	12-31-25
Louisiana	NELAP	30785	06-30-14 *
Louisiana (All)	NELAP	30785	06-30-25
Minnesota	NELAP	1788752	04-03-25
Nevada	State	CO00026	07-31-25
New Hampshire	NELAP	2053	04-28-25
New Jersey	NELAP	230001	03-30-25
New York	NELAP	11964	03-31-25
North Dakota	State	R-034	01-08-25 *
Oklahoma	NELAP	8614	08-31-25
Oregon	NELAP	4025	03-05-25
Pennsylvania	NELAP	013	07-31-25
South Carolina	State	72002001	01-18-25 *
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183	09-30-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO00026	07-31-25
Virginia	NELAP	460232	06-14-25
Washington	State	C583	04-06-25
West Virginia DEP	State	354	11-30-25
Wisconsin	State	999615430	08-31-25
Wyoming (UST)	A2LA	2907.01	10-31-26

Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-04-25
Florida	NELAP	E871002	03-06-25
Louisiana (All)	NELAP	03054	12-20-25
Oklahoma	NELAP	1306	02-23-25
Texas	NELAP	T104704215	07-01-26
Texas	TCEQ Water Supply	T104704215	12-28-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Topographic
Job ID: 280-202469-1
Project/Site: DEO Red Rocks, Colorado

Laboratory: Eurofins Houston (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
USDA	US Federal Programs	525-23-79-79507	03-20-26

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Phone (303) 431-7171

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: A. Lindsay	Lab PM: Servas, Cassie	Carrier Tracking No(s):	COC No: 280-147075-40066.1
Client Contact: Austin Lindsay	Phone: 405.229.6082	E-Mail: Cassie.Servas@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Topographic	PWSID:			Job #:
Address: 1900 NW Expressway, Ste. 1500	Due Date Requested:			
City: Oklahoma City	TAT Requested (days): 2 business days 10 - 4 cal			
State, Zip: OK, 73118	Compliance Project: ☒ Yes ☐ No			
Phone: 405-843-4847(Tel)	PO #: Advance Payment Required			
Email: Austin.Lindsay@topographic.com	WO #			
Project Name: DEO Red Rocks, Colorado	Project #: 28027900			
Site: Red Rocks 1-13	SSOW#			

Analysis Requested

Preservation Codes:
N - None
F - MeOH
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015D-GRO	8015D-DRO	8260D-BTEX, Naphthalene & TMBs	8270E-PAH	6020B-Total Metals, 10 Specific Analytes	6010D -Total Boron	29B_SAR_Calc-Sodium Absorption 7196A-Hexavalent Chromium	29B_EC - Electrical Conductivity	29B_pH	Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	F	N	N	N	N	N	N	N		
~~Red RocksA1~~				Solid														
RR113-SA01	1/30/25	7:15	G	Solid	N		•	•	•	•	•	•	•	•	•	•		1-1## sgc
RR113-BG01	"	7:41	G	Solid	N		•	•	•	•	•	•	•	•	•	•		"
				Solid														
				Solid														
				Solid														
				Solid														
				Solid														
				Solid														
				Solid														
				Solid														
				Solid														

280-202469 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by	Date/Time	Company
A. Lindsay	1/31/25 12:15			1/31/25 12:15	ET DEN
Relinquished by:	Date/Time:	Company	Received by	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.1, 0.4, 0.6 IR PAB CF 0.2

Ver: 05/06/2024

Login Sample Receipt Checklist

Client: Topographic

Job Number: 280-202469-1

Login Number: 202469
List Number: 1
Creator: Roehsner, Karen P

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	False	Refer to Job Narrative for details.
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Topographic

Job Number: 280-202469-1

Login Number: 202469
List Number: 2
Creator: Baker, Jeremiah

List Source: Eurofins Houston
List Creation: 02/04/25 02:06 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	