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30 July 2021

Jake Harter
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: COGCC Table 915-1

Enclosed are the results of analyses for samples received by the laboratory on 07/20/21 14:15. The data to follow was performed, in whole or in part, by a subcontract laboratory with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'.

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Haun-Delaney (OWP) #1
Project Manager: Jake Harter

Reported:
07/30/21 16:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS01	2107210-01	Solid	07/20/21 10:15	07/20/21 14:15	
SS02	2107210-02	Solid	07/20/21 10:35	07/20/21 14:15	
SS03	2107210-03	Solid	07/20/21 10:50	07/20/21 14:15	
SS04	2107210-04	Solid	07/20/21 11:10	07/20/21 14:15	

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Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: Haun-Delaney (OWP) #1 Project Manager: Jake Harter	Reported: 07/30/21 16:11
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SS01

2107210-01 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Saturated Paste Extraction

Calcium	143	0.500	0.289	mg/L	5	07/29/21 16:39	EPA200.7		AES
Conductivity	2490			umho/cm @ 25.0°C	1	07/29/21 16:34	ASA#9 10-3.3		JDA
Magnesium	16.6	0.500	0.327	mg/L	5	07/29/21 16:39	EPA200.7		AES
pH	9.83			pH Units	1	07/29/21 16:36	ASA#9 10-3.2		JDA
SAR	6.44			No Unit	1	07/29/21 16:39	Calculation		AES
Sodium	305	5.00	0.396	mg/L	5	07/29/21 16:39	EPA200.7		AES

Total Metals by ICP

Barium	319	5.00	0.390	mg/kg dry	100	07/29/21 14:39	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	07/29/21 14:39	6010B		AES
Chromium	12.5	5.00	0.400	mg/kg dry	100	07/29/21 14:39	6010B		AES
Copper	16.1	5.00	2.39	mg/kg dry	100	07/29/21 14:39	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	07/29/21 14:39	6010B		AES
Nickel	8.45	5.00	0.874	mg/kg dry	100	07/29/21 14:39	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	07/29/21 14:38	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	07/29/21 14:38	6010B		AES
Zinc	27.7	10.0	1.71	mg/kg dry	100	07/29/21 14:39	6010B		AES

Total Metals by ICPMS

Arsenic	5.65	1.00	0.0950	mg/kg dry	1000	07/29/21 13:10	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	07/29/21 17:00	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	07/25/21 11:20	8015B		MS
DRO >C10-C28*	18.3	10.0	4.26	mg/kg	1	07/25/21 11:20	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	07/25/21 11:20	8015B		MS

Surrogate: 1-Chlorooctane			102 %	44.3-133		07/25/21 11:20	8015B		MS
Surrogate: 1-Chlorooctadecane			94.9 %	38.9-142		07/25/21 11:20	8015B		MS

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Debbie Zufelt

Debbie Zufelt, Reports Manager

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SS01

2107210-01 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	07/21/21 13:56	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	07/21/21 13:56	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	07/21/21 13:56	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	07/21/21 13:56	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	07/21/21 13:56	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	07/21/21 13:56	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	07/21/21 13:56	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	07/21/21 13:56	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	07/21/21 13:56	8260B		MS
Surrogate: Dibromofluoromethane			101 %	84.6-114		07/21/21 13:56	8260B		MS
Surrogate: Toluene-d8			98.6 %	90.4-109		07/21/21 13:56	8260B		MS
Surrogate: 4-Bromofluorobenzene			94.6 %	82.5-117		07/21/21 13:56	8260B		MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	07/23/21 17:03	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	07/23/21 17:03	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	07/23/21 17:03	8270C		MS
Acenaphthylene*	<0.020	0.040	0.020	mg/kg	40	07/23/21 17:03	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	07/23/21 17:03	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	07/23/21 17:03	8270C		MS
Phenanthrene*	<0.021	0.040	0.021	mg/kg	40	07/23/21 17:03	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 17:03	8270C		MS
Carbazole*	<0.019	0.040	0.019	mg/kg	40	07/23/21 17:03	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 17:03	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	07/23/21 17:03	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	07/23/21 17:03	8270C		MS
Chrysene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 17:03	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 17:03	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	07/23/21 17:03	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	07/23/21 17:03	8270C		MS

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Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: Haun-Delaney (OWP) #1 Project Manager: Jake Harter	Reported: 07/30/21 16:11
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SS01

2107210-01 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

Polynuclear Aromatic Compounds by GC/MS

Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 17:03	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 17:03	8270C		MS
Benzo[g,h,i]perylene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 17:03	8270C		MS
Surrogate: Nitrobenzene-d5			79.8 %	39.6-121		07/23/21 17:03	8270C		MS
Surrogate: 2-Fluorobiphenyl			80.5 %	39.8-134		07/23/21 17:03	8270C		MS
Surrogate: Terphenyl-d14			83.4 %	33.3-136		07/23/21 17:03	8270C		MS

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SS02

2107210-02 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Saturated Paste Extraction

Calcium	89.0	0.100	0.058	mg/L	1	07/29/21 16:41	EPA200.7		AES
Conductivity	930			umho/cm @ 25.0°C	1	07/29/21 16:34	ASA#9 10-3.3		JDA
Magnesium	35.7	0.100	0.065	mg/L	1	07/29/21 16:41	EPA200.7		AES
pH	7.90			pH Units	1	07/29/21 16:36	ASA#9 10-3.2		JDA
SAR	0.67			No Unit	1	07/29/21 16:41	Calculation		AES
Sodium	29.6	1.00	0.079	mg/L	1	07/29/21 16:41	EPA200.7		AES

Total Metals by ICP

Barium	209	5.00	0.390	mg/kg dry	100	07/29/21 14:46	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	07/29/21 14:46	6010B		AES
Chromium	11.9	5.00	0.400	mg/kg dry	100	07/29/21 14:46	6010B		AES
Copper	15.0	5.00	2.39	mg/kg dry	100	07/29/21 14:46	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	07/29/21 14:46	6010B		AES
Nickel	8.94	5.00	0.874	mg/kg dry	100	07/29/21 14:46	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	07/29/21 14:46	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	07/29/21 14:46	6010B		AES
Zinc	29.7	10.0	1.71	mg/kg dry	100	07/29/21 14:46	6010B		AES

Total Metals by ICPMS

Arsenic	4.40	1.00	0.0950	mg/kg dry	1000	07/29/21 13:13	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	07/29/21 17:02	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	07/25/21 11:35	8015B		MS
DRO >C10-C28*	<10.0	10.0	4.26	mg/kg	1	07/25/21 11:35	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	07/25/21 11:35	8015B		MS

Surrogate: 1-Chlorooctane			88.9 %	44.3-133		07/25/21 11:35	8015B		MS
Surrogate: 1-Chlorooctadecane			81.1 %	38.9-142		07/25/21 11:35	8015B		MS

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SS02

2107210-02 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	07/21/21 14:19	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	07/21/21 14:19	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	07/21/21 14:19	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	07/21/21 14:19	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	07/21/21 14:19	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	07/21/21 14:19	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	07/21/21 14:19	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	07/21/21 14:19	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	07/21/21 14:19	8260B		MS
Surrogate: Dibromofluoromethane			101 %	84.6-114		07/21/21 14:19	8260B		MS
Surrogate: Toluene-d8			97.0 %	90.4-109		07/21/21 14:19	8260B		MS
Surrogate: 4-Bromofluorobenzene			95.2 %	82.5-117		07/21/21 14:19	8260B		MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	07/23/21 17:32	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	07/23/21 17:32	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	07/23/21 17:32	8270C		MS
Acenaphthylene*	<0.020	0.040	0.020	mg/kg	40	07/23/21 17:32	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	07/23/21 17:32	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	07/23/21 17:32	8270C		MS
Phenanthrene*	<0.021	0.040	0.021	mg/kg	40	07/23/21 17:32	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 17:32	8270C		MS
Carbazole*	<0.019	0.040	0.019	mg/kg	40	07/23/21 17:32	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 17:32	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	07/23/21 17:32	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	07/23/21 17:32	8270C		MS
Chrysene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 17:32	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 17:32	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	07/23/21 17:32	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	07/23/21 17:32	8270C		MS

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Debbie Zufelt, Reports Manager

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SS02

2107210-02 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

Polynuclear Aromatic Compounds by GC/MS

Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 17:32	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 17:32	8270C		MS
Benzo[g,h,i]perylene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 17:32	8270C		MS
Surrogate: Nitrobenzene-d5			74.4 %	39.6-121		07/23/21 17:32	8270C		MS
Surrogate: 2-Fluorobiphenyl			77.0 %	39.8-134		07/23/21 17:32	8270C		MS
Surrogate: Terphenyl-d14			77.3 %	33.3-136		07/23/21 17:32	8270C		MS

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SS03

2107210-03 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Saturated Paste Extraction

Calcium	112	0.100	0.058	mg/L	1	07/29/21 16:43	EPA200.7		AES
Conductivity	840			umho/cm @ 25.0°C	1	07/29/21 16:34	ASA#9 10-3.3		JDA
Magnesium	23.7	0.100	0.065	mg/L	1	07/29/21 16:43	EPA200.7		AES
pH	7.60			pH Units	1	07/29/21 16:36	ASA#9 10-3.2		JDA
SAR	0.28			No Unit	1	07/29/21 16:43	Calculation		AES
Sodium	12.7	1.00	0.079	mg/L	1	07/29/21 16:43	EPA200.7		AES

Total Metals by ICP

Barium	229	5.00	0.390	mg/kg dry	100	07/29/21 14:50	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	07/29/21 14:50	6010B		AES
Chromium	14.0	5.00	0.400	mg/kg dry	100	07/29/21 14:50	6010B		AES
Copper	17.6	5.00	2.39	mg/kg dry	100	07/29/21 14:50	6010B		AES
Lead	<10.0	10.0	0.906	mg/kg dry	100	07/29/21 14:50	6010B		AES
Nickel	11.9	5.00	0.874	mg/kg dry	100	07/29/21 14:50	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	07/29/21 14:50	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	07/29/21 14:50	6010B		AES
Zinc	34.4	10.0	1.71	mg/kg dry	100	07/29/21 14:50	6010B		AES

Total Metals by ICPMS

Arsenic	5.47	1.00	0.0950	mg/kg dry	1000	07/29/21 13:17	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	07/29/21 17:03	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	07/25/21 11:50	8015B		MS
DRO >C10-C28*	10.8	10.0	4.26	mg/kg	1	07/25/21 11:50	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	07/25/21 11:50	8015B		MS

Surrogate: 1-Chlorooctane	99.4 %	44.3-133				07/25/21 11:50	8015B		MS
Surrogate: 1-Chlorooctadecane	91.9 %	38.9-142				07/25/21 11:50	8015B		MS

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: Haun-Delaney (OWP) #1 Project Manager: Jake Harter	Reported: 07/30/21 16:11
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SS03

2107210-03 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	07/21/21 14:42	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	07/21/21 14:42	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	07/21/21 14:42	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	07/21/21 14:42	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	07/21/21 14:42	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	07/21/21 14:42	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	07/21/21 14:42	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	07/21/21 14:42	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	07/21/21 14:42	8260B		MS
Surrogate: Dibromofluoromethane			103 %	84.6-114		07/21/21 14:42	8260B		MS
Surrogate: Toluene-d8			98.2 %	90.4-109		07/21/21 14:42	8260B		MS
Surrogate: 4-Bromofluorobenzene			94.3 %	82.5-117		07/21/21 14:42	8260B		MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	07/23/21 18:01	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	07/23/21 18:01	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	07/23/21 18:01	8270C		MS
Acenaphthylene*	<0.020	0.040	0.020	mg/kg	40	07/23/21 18:01	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	07/23/21 18:01	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	07/23/21 18:01	8270C		MS
Phenanthrene*	<0.021	0.040	0.021	mg/kg	40	07/23/21 18:01	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 18:01	8270C		MS
Carbazole*	<0.019	0.040	0.019	mg/kg	40	07/23/21 18:01	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 18:01	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	07/23/21 18:01	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	07/23/21 18:01	8270C		MS
Chrysene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 18:01	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 18:01	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	07/23/21 18:01	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	07/23/21 18:01	8270C		MS

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Debbie Zufelt

Debbie Zufelt, Reports Manager

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: Haun-Delaney (OWP) #1 Project Manager: Jake Harter	Reported: 07/30/21 16:11
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SS03

2107210-03 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

Polynuclear Aromatic Compounds by GC/MS

Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 18:01	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 18:01	8270C		MS
Benzo[g,h,i]perylene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 18:01	8270C		MS
Surrogate: Nitrobenzene-d5			78.6 %	39.6-121		07/23/21 18:01	8270C		MS
Surrogate: 2-Fluorobiphenyl			80.4 %	39.8-134		07/23/21 18:01	8270C		MS
Surrogate: Terphenyl-d14			85.0 %	33.3-136		07/23/21 18:01	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: Haun-Delaney (OWP) #1 Project Manager: Jake Harter	Reported: 07/30/21 16:11
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SS04

2107210-04 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Saturated Paste Extraction

Calcium	109	0.200	0.116	mg/L	2	07/29/21 16:45	EPA200.7		AES
Conductivity	1760			umho/cm @ 25.0°C	1	07/29/21 16:34	ASA#9 10-3.3		JDA
Magnesium	24.1	0.200	0.131	mg/L	2	07/29/21 16:45	EPA200.7		AES
pH	7.06			pH Units	1	07/29/21 16:36	ASA#9 10-3.2		JDA
SAR	0.41			No Unit	1	07/29/21 16:45	Calculation		AES
Sodium	18.0	2.00	0.159	mg/L	2	07/29/21 16:45	EPA200.7		AES

Total Metals by ICP

Barium	186	5.00	0.390	mg/kg dry	100	07/29/21 14:54	6010B		AES
Cadmium	<5.00	5.00	1.10	mg/kg dry	100	07/29/21 14:54	6010B		AES
Chromium	12.0	5.00	0.400	mg/kg dry	100	07/29/21 14:54	6010B		AES
Copper	22.4	5.00	2.39	mg/kg dry	100	07/29/21 14:54	6010B		AES
Lead	11.6	10.0	0.906	mg/kg dry	100	07/29/21 14:54	6010B		AES
Nickel	10.0	5.00	0.874	mg/kg dry	100	07/29/21 14:54	6010B		AES
Selenium	<20.0	20.0	4.70	mg/kg dry	100	07/29/21 14:53	6010B		AES
Silver	<1.00	1.00	0.688	mg/kg dry	100	07/29/21 14:53	6010B		AES
Zinc	44.7	10.0	1.71	mg/kg dry	100	07/29/21 14:54	6010B		AES

Total Metals by ICPMS

Arsenic	4.82	1.00	0.0950	mg/kg dry	1000	07/29/21 13:27	6020A		AES
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Hot Water Extractable

Boron	1.59	1.20	0.568	mg/L	4	07/29/21 17:05	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	07/25/21 12:05	8015B		MS
DRO >C10-C28*	<10.0	10.0	4.26	mg/kg	1	07/25/21 12:05	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	07/25/21 12:05	8015B		MS

Surrogate: 1-Chlorooctane			95.3 %	44.3-133		07/25/21 12:05	8015B		MS
Surrogate: 1-Chlorooctadecane			87.8 %	38.9-142		07/25/21 12:05	8015B		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: Haun-Delaney (OWP) #1 Project Manager: Jake Harter	Reported: 07/30/21 16:11
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SS04

2107210-04 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	07/21/21 15:05	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	07/21/21 15:05	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	07/21/21 15:05	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	07/21/21 15:05	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	07/21/21 15:05	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0250	mg/kg	50	07/21/21 15:05	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	07/21/21 15:05	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	07/21/21 15:05	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	07/21/21 15:05	8260B		MS
Surrogate: Dibromofluoromethane			105 %	84.6-114		07/21/21 15:05	8260B		MS
Surrogate: Toluene-d8			97.4 %	90.4-109		07/21/21 15:05	8260B		MS
Surrogate: 4-Bromofluorobenzene			94.9 %	82.5-117		07/21/21 15:05	8260B		MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	07/23/21 18:31	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	07/23/21 18:31	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	07/23/21 18:31	8270C		MS
Acenaphthylene*	<0.020	0.040	0.020	mg/kg	40	07/23/21 18:31	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	07/23/21 18:31	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	07/23/21 18:31	8270C		MS
Phenanthrene*	<0.021	0.040	0.021	mg/kg	40	07/23/21 18:31	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 18:31	8270C		MS
Carbazole*	<0.019	0.040	0.019	mg/kg	40	07/23/21 18:31	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 18:31	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	07/23/21 18:31	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	07/23/21 18:31	8270C		MS
Chrysene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 18:31	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 18:31	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	07/23/21 18:31	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	07/23/21 18:31	8270C		MS

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: Haun-Delaney (OWP) #1 Project Manager: Jake Harter	Reported: 07/30/21 16:11
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SS04

2107210-04 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

Polynuclear Aromatic Compounds by GC/MS

Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	07/23/21 18:31	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 18:31	8270C		MS
Benzo[g,h,i]perylene*	<0.019	0.040	0.019	mg/kg	40	07/23/21 18:31	8270C		MS
<i>Surrogate: Nitrobenzene-d5</i>			77.5 %	39.6-121		07/23/21 18:31	8270C		MS
<i>Surrogate: 2-Fluorobiphenyl</i>			75.3 %	39.8-134		07/23/21 18:31	8270C		MS
<i>Surrogate: Terphenyl-d14</i>			81.7 %	33.3-136		07/23/21 18:31	8270C		MS

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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: Haun-Delaney (OWP) #1	Reported:
Durango CO, 81302	Project Manager: Jake Harter	07/30/21 16:11

Saturated Paste Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B211717 - Paste Extract										
Blank (B211717-BLK1)										
Prepared & Analyzed: 07/29/21										
Calcium	ND	0.100	mg/L							
Magnesium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							
Duplicate (B211717-DUP1)										
Source: 2107209-01 Prepared & Analyzed: 07/29/21										
Calcium	71.0	0.100	mg/L		68.1			4.08	20	
Magnesium	11.1	0.100	mg/L		10.8			2.16	20	
SAR	0.52		No Unit		0.52			0.00	20	
Sodium	17.8	1.00	mg/L		17.5			2.16	20	
Reference (B211717-SRM1)										
Prepared & Analyzed: 07/29/21										
SAR	7.32		No Unit	7.50		97.6	90-110			
Batch B211718 - Paste Extract										
Duplicate (B211718-DUP1)										
Source: 2107209-01 Prepared & Analyzed: 07/29/21										
Conductivity	525		umho/cm @ 25.0°C		505			3.88	20	
Reference (B211718-SRM1)										
Prepared & Analyzed: 07/29/21										
Conductivity	7090		umho/cm @ 25.0°C	6720		105	90-110			
Batch B211719 - Paste Extract										
Duplicate (B211719-DUP1)										
Source: 2107209-01 Prepared & Analyzed: 07/29/21										
pH	7.30		pH Units		7.36			0.819	20	
Reference (B211719-SRM1)										
Prepared & Analyzed: 07/29/21										
pH	8.71		pH Units	9.14		95.3	95-105			

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Cottonwood Consulting	Project: COGCC Table 915-1	Reported: 07/30/21 16:11
PO Box 1653	Project Name / Number: Haun-Delaney (OWP) #1	
Durango CO, 81302	Project Manager: Jake Harter	

Total Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B211672 - EPA 3050

Blank (B211672-BLK1)

Prepared: 07/26/21 Analyzed: 07/29/21

Barium	ND	5.00	mg/kg dry							
Cadmium	ND	5.00	mg/kg dry							
Chromium	ND	5.00	mg/kg dry							
Copper	ND	5.00	mg/kg dry							
Lead	ND	10.0	mg/kg dry							
Nickel	ND	5.00	mg/kg dry							
Selenium	ND	20.0	mg/kg dry							
Silver	ND	1.00	mg/kg dry							
Zinc	ND	10.0	mg/kg dry							

LCS (B211672-BS1)

Prepared: 07/26/21 Analyzed: 07/29/21

Barium	189	5.00	mg/kg dry	200		94.5	80-120			
Cadmium	175	5.00	mg/kg dry	200		87.5	80-120			
Chromium	189	5.00	mg/kg dry	200		94.4	80-120			
Copper	396	5.00	mg/kg dry	400		98.9	80-120			
Lead	186	10.0	mg/kg dry	200		92.8	80-120			
Nickel	185	5.00	mg/kg dry	200		92.4	80-120			
Selenium	789	20.0	mg/kg dry	800		98.6	80-120			
Silver	9.71	1.00	mg/kg dry	10.0		97.1	80-120			
Zinc	174	10.0	mg/kg dry	200		87.1	80-120			

LCS Dup (B211672-BSD1)

Prepared: 07/26/21 Analyzed: 07/29/21

Barium	190	5.00	mg/kg dry	200		95.2	80-120	0.750	20	
Cadmium	178	5.00	mg/kg dry	200		89.1	80-120	1.80	20	
Chromium	190	5.00	mg/kg dry	200		95.2	80-120	0.852	20	
Copper	400	5.00	mg/kg dry	400		100	80-120	1.16	20	
Lead	184	10.0	mg/kg dry	200		92.0	80-120	0.854	20	
Nickel	184	5.00	mg/kg dry	200		91.8	80-120	0.571	20	
Selenium	764	20.0	mg/kg dry	800		95.5	80-120	3.13	20	
Silver	9.80	1.00	mg/kg dry	10.0		98.0	80-120	0.925	20	
Zinc	172	10.0	mg/kg dry	200		86.2	80-120	1.02	20	

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Cottonwood Consulting PO Box 1653 Durango CO, 81302	Project: COGCC Table 915-1 Project Name / Number: Haun-Delaney (OWP) #1 Project Manager: Jake Harter	Reported: 07/30/21 16:11
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Total Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B211673 - EPA 3050M

Blank (B211673-BLK1)

Prepared: 07/26/21 Analyzed: 07/29/21

Arsenic	ND	0.100	mg/kg dry							
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LCS (B211673-BS1)

Prepared: 07/26/21 Analyzed: 07/29/21

Arsenic	4.86	0.100	mg/kg dry	5.00		97.3	80-120			
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LCS Dup (B211673-BSD1)

Prepared: 07/26/21 Analyzed: 07/29/21

Arsenic	5.63	0.100	mg/kg dry	5.00		113	80-120	14.5	20	
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Hot Water Extractable - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B211720 - Hot Water Soluble Metals Extract

Blank (B211720-BLK1)

Prepared & Analyzed: 07/29/21

Boron	ND	1.20	mg/L							
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Duplicate (B211720-DUP1)

Source: 2107209-01 Prepared & Analyzed: 07/29/21

Boron	0.603	1.20	mg/L		0.626			3.74	200	
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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: Haun-Delaney (OWP) #1	Reported:
Durango CO, 81302	Project Manager: Jake Harter	07/30/21 16:11

Petroleum Hydrocarbons by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1072301 - General Prep - Organics

Blank (1072301-BLK1)

Prepared: 07/23/21 Analyzed: 07/25/21

Surrogate: 1-Chlorooctadecane	36.6		mg/kg	50.0		73.1	38.9-142			
Surrogate: 1-Chlorooctane	38.9		mg/kg	50.0		77.8	44.3-133			
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
GRO C6-C10	ND	10.0	mg/kg							

LCS (1072301-BS1)

Prepared: 07/23/21 Analyzed: 07/25/21

Surrogate: 1-Chlorooctadecane	37.9		mg/kg	50.0		75.8	38.9-142			
Surrogate: 1-Chlorooctane	40.4		mg/kg	50.0		80.8	44.3-133			
DRO >C10-C28	192	10.0	mg/kg	200		96.1	79.3-136			
GRO C6-C10	196	10.0	mg/kg	200		97.8	83.4-129			
Total TPH C6-C28	388	10.0	mg/kg	400		97.0	85.3-130			

LCS Dup (1072301-BSD1)

Prepared: 07/23/21 Analyzed: 07/25/21

Surrogate: 1-Chlorooctadecane	37.4		mg/kg	50.0		74.8	38.9-142			
Surrogate: 1-Chlorooctane	39.9		mg/kg	50.0		79.7	44.3-133			
DRO >C10-C28	198	10.0	mg/kg	200		99.1	79.3-136	3.07	12.1	
GRO C6-C10	206	10.0	mg/kg	200		103	83.4-129	5.04	12.6	
Total TPH C6-C28	404	10.0	mg/kg	400		101	85.3-130	4.07	11.6	

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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: Haun-Delaney (OWP) #1	Reported:
Durango CO, 81302	Project Manager: Jake Harter	07/30/21 16:11

VOLATILES BY GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1072006 - Volatiles

Blank (1072006-BLK1)

Prepared & Analyzed: 07/20/21

1,2,4-Trimethylbenzene	ND	0.0250	mg/kg							
1,3,5-Trimethylbenzene	ND	0.0250	mg/kg							
<i>Surrogate: 4-Bromofluorobenzene</i>	1.15		mg/kg	1.25		92.3	82.5-117			
Benzene	ND	0.0250	mg/kg							
<i>Surrogate: Dibromofluoromethane</i>	1.30		mg/kg	1.25		104	84.6-114			
Ethylbenzene	ND	0.0250	mg/kg							
m+p - Xylene	ND	0.0500	mg/kg							
Naphthalene	ND	0.0250	mg/kg							
o-Xylene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	mg/kg							
<i>Surrogate: Toluene-d8</i>	1.21		mg/kg	1.25		96.5	90.4-109			
Total Xylenes	ND	0.0250	mg/kg							

LCS (1072006-BS1)

Prepared & Analyzed: 07/20/21

1,2,4-Trimethylbenzene	0.458	0.0250	mg/kg	0.500		91.6	62.4-140			
1,3,5-Trimethylbenzene	0.457	0.0250	mg/kg	0.500		91.4	64.4-138			
<i>Surrogate: 4-Bromofluorobenzene</i>	1.21		mg/kg	1.25		97.0	82.5-117			
Benzene	0.490	0.0250	mg/kg	0.500		97.9	73-130			
<i>Surrogate: Dibromofluoromethane</i>	1.29		mg/kg	1.25		103	84.6-114			
Ethylbenzene	0.491	0.0250	mg/kg	0.500		98.2	75.4-127			
m+p - Xylene	0.966	0.0500	mg/kg	1.00		96.6	71.8-133			
Naphthalene	0.426	0.0250	mg/kg	0.500		85.1	28.7-158			
o-Xylene	0.468	0.0250	mg/kg	0.500		93.6	78.6-125			
Toluene	0.464	0.0250	mg/kg	0.500		92.9	79-122			
<i>Surrogate: Toluene-d8</i>	1.22		mg/kg	1.25		97.6	90.4-109			
Total Xylenes	1.43	0.0250	mg/kg	1.50		95.6	74.6-130			

LCS Dup (1072006-BSD1)

Prepared & Analyzed: 07/20/21

1,2,4-Trimethylbenzene	0.496	0.0250	mg/kg	0.500		99.2	62.4-140	8.00	38.2	
1,3,5-Trimethylbenzene	0.488	0.0250	mg/kg	0.500		97.6	64.4-138	6.60	39.1	
<i>Surrogate: 4-Bromofluorobenzene</i>	1.20		mg/kg	1.25		95.8	82.5-117			
Benzene	0.502	0.0250	mg/kg	0.500		100	73-130	2.53	17.1	
<i>Surrogate: Dibromofluoromethane</i>	1.29		mg/kg	1.25		103	84.6-114			
Ethylbenzene	0.508	0.0250	mg/kg	0.500		102	75.4-127	3.50	16.5	
m+p - Xylene	1.02	0.0500	mg/kg	1.00		102	71.8-133	5.62	19.1	
Naphthalene	0.458	0.0250	mg/kg	0.500		91.5	28.7-158	7.25	64	
o-Xylene	0.481	0.0250	mg/kg	0.500		96.2	78.6-125	2.74	13.2	
Toluene	0.491	0.0250	mg/kg	0.500		98.2	79-122	5.56	18.3	

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Debbie Zufelt

Debbie Zufelt, Reports Manager

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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: Haun-Delaney (OWP) #1	Reported:
Durango CO, 81302	Project Manager: Jake Harter	07/30/21 16:11

**VOLATILES BY GC/MS - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1072006 - Volatiles (Continued)

LCS Dup (1072006-BSD1) (Continued)

Prepared & Analyzed: 07/20/21

Surrogate: Toluene-d8	1.22		mg/kg	1.25		97.3	90.4-109			
Total Xylenes	1.50	0.0250	mg/kg	1.50		100	74.6-130	4.69	16.5	

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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: Haun-Delaney (OWP) #1	Reported:
Durango CO, 81302	Project Manager: Jake Harter	07/30/21 16:11

Polynuclear Aromatic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1072106 - SW846-3510

Blank (1072106-BLK1)

Prepared: 07/21/21 Analyzed: 07/23/21

1-Methylnaphthalene	ND	0.040	mg/kg							
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.38</i>		mg/kg	<i>2.00</i>		<i>69.0</i>	<i>39.8-134</i>			
2-Methylnaphthalene	ND	0.040	mg/kg							
Acenaphthene	ND	0.040	mg/kg							
Acenaphthylene	ND	0.040	mg/kg							
Anthracene	ND	0.040	mg/kg							
Benzo[a]anthracene	ND	0.040	mg/kg							
Benzo[a]pyrene	ND	0.040	mg/kg							
Benzo[b]flouranthene	ND	0.040	mg/kg							
Benzo[g,h,i]perylene	ND	0.040	mg/kg							
Benzo[k]flouranthene	ND	0.040	mg/kg							
Carbazole	ND	0.040	mg/kg							
Chrysene	ND	0.040	mg/kg							
Dibenz[a,h]anthracene	ND	0.040	mg/kg							
Fluoranthene	ND	0.040	mg/kg							
Fluorene	ND	0.040	mg/kg							
Indeno[1,2,3-cd]pyrene	ND	0.040	mg/kg							
Naphthalene	ND	0.040	mg/kg							
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.36</i>		mg/kg	<i>2.00</i>		<i>67.9</i>	<i>39.6-121</i>			
Phenanthrene	ND	0.040	mg/kg							
Pyrene	ND	0.040	mg/kg							
<i>Surrogate: Terphenyl-d14</i>	<i>1.46</i>		mg/kg	<i>2.00</i>		<i>72.9</i>	<i>33.3-136</i>			

LCS (1072106-BS1)

Prepared: 07/21/21 Analyzed: 07/26/21

1-Methylnaphthalene	0.262	0.040	mg/kg	0.400		65.4	57.6-108			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.57</i>		mg/kg	<i>2.00</i>		<i>78.5</i>	<i>39.8-134</i>			
2-Methylnaphthalene	0.252	0.040	mg/kg	0.400		63.1	59-106			
Acenaphthene	0.270	0.040	mg/kg	0.400		67.6	60.9-105			
Acenaphthylene	0.285	0.040	mg/kg	0.400		71.2	57.4-107			
Anthracene	0.279	0.040	mg/kg	0.400		69.8	60.8-105			
Benzo[a]anthracene	0.279	0.040	mg/kg	0.400		69.9	56.1-121			
Benzo[a]pyrene	0.248	0.040	mg/kg	0.400		62.0	56.7-115			
Benzo[b]flouranthene	0.282	0.040	mg/kg	0.400		70.6	45.4-128			
Benzo[g,h,i]perylene	0.287	0.040	mg/kg	0.400		71.8	56.5-107			
Benzo[k]flouranthene	0.281	0.040	mg/kg	0.400		70.2	49.6-119			
Carbazole	0.287	0.040	mg/kg	0.400		71.8	59.7-107			
Chrysene	0.284	0.040	mg/kg	0.400		70.9	12.2-190			
Dibenz[a,h]anthracene	0.259	0.040	mg/kg	0.400		64.7	59.1-111			
Fluoranthene	0.276	0.040	mg/kg	0.400		69.1	60.6-111			

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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: Haun-Delaney (OWP) #1	Reported:
Durango CO, 81302	Project Manager: Jake Harter	07/30/21 16:11

**Polynuclear Aromatic Compounds by GC/MS - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1072106 - SW846-3510 (Continued)

LCS (1072106-BS1) (Continued)

Prepared: 07/21/21 Analyzed: 07/26/21

Fluorene	0.248	0.040	mg/kg	0.400		62.0	59.3-108			
Indeno[1,2,3-cd]pyrene	0.271	0.040	mg/kg	0.400		67.7	53.4-116			
Naphthalene	0.276	0.040	mg/kg	0.400		69.0	56.5-106			
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.57</i>		mg/kg	<i>2.00</i>		<i>78.6</i>	<i>39.6-121</i>			
Phenanthrene	0.277	0.040	mg/kg	0.400		69.2	59.9-107			
Pyrene	0.278	0.040	mg/kg	0.400		69.5	51.5-122			
<i>Surrogate: Terphenyl-d14</i>	<i>1.54</i>		mg/kg	<i>2.00</i>		<i>76.8</i>	<i>33.3-136</i>			

LCS Dup (1072106-BS1)

Prepared: 07/21/21 Analyzed: 07/26/21

1-Methylnaphthalene	0.258	0.040	mg/kg	0.400		64.6	57.6-108	1.19	6.22	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.57</i>		mg/kg	<i>2.00</i>		<i>78.7</i>	<i>39.8-134</i>			
2-Methylnaphthalene	0.274	0.040	mg/kg	0.400		68.5	59-106	8.29	6.23	QR-04
Acenaphthene	0.279	0.040	mg/kg	0.400		69.8	60.9-105	3.24	8.18	
Acenaphthylene	0.282	0.040	mg/kg	0.400		70.5	57.4-107	1.02	5	
Anthracene	0.278	0.040	mg/kg	0.400		69.4	60.8-105	0.585	3.68	
Benzo[a]anthracene	0.290	0.040	mg/kg	0.400		72.4	56.1-121	3.56	9.01	
Benzo[a]pyrene	0.241	0.040	mg/kg	0.400		60.4	56.7-115	2.71	4.92	
Benzo[b]fluoranthene	0.286	0.040	mg/kg	0.400		71.4	45.4-128	1.15	7.63	
Benzo[g,h,i]perylene	0.280	0.040	mg/kg	0.400		70.0	56.5-107	2.54	12.5	
Benzo[k]fluoranthene	0.264	0.040	mg/kg	0.400		66.1	49.6-119	6.05	10.6	
Carbazole	0.286	0.040	mg/kg	0.400		71.5	59.7-107	0.401	8.65	
Chrysene	0.279	0.040	mg/kg	0.400		69.7	12.2-190	1.75	21.8	
Dibenz[a,h]anthracene	0.254	0.040	mg/kg	0.400		63.4	59.1-111	2.09	11.6	
Fluoranthene	0.260	0.040	mg/kg	0.400		65.1	60.6-111	5.97	7.54	
Fluorene	0.268	0.040	mg/kg	0.400		67.0	59.3-108	7.76	5.49	QR-04
Indeno[1,2,3-cd]pyrene	0.268	0.040	mg/kg	0.400		67.1	53.4-116	0.920	22.3	
Naphthalene	0.269	0.040	mg/kg	0.400		67.2	56.5-106	2.71	4.56	
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.61</i>		mg/kg	<i>2.00</i>		<i>80.6</i>	<i>39.6-121</i>			
Phenanthrene	0.264	0.040	mg/kg	0.400		66.1	59.9-107	4.67	5.21	
Pyrene	0.270	0.040	mg/kg	0.400		67.5	51.5-122	2.92	10.6	
<i>Surrogate: Terphenyl-d14</i>	<i>1.57</i>		mg/kg	<i>2.00</i>		<i>78.7</i>	<i>33.3-136</i>			

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Cottonwood Consulting	Project: COGCC Table 915-1	
PO Box 1653	Project Name / Number: Haun-Delaney (OWP) #1	Reported:
Durango CO, 81302	Project Manager: Jake Harter	07/30/21 16:11

Notes and Definitions

QR-04 The RPD for the BS/BSD was outside of historical limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis
*Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(970) 247-4220
 Fax: (970) 247-4227

Service@greenanalytical.com or dzufelt@greenanalytical.com
 75 Suttle St Durango, CO 81303

Company Name: Cottonwood Consulting
 Project Manager: Jacob Harter

Address: PO Box 1653

City: Durango

Phone #: (970) 946-3761

Additional Report To:

Project Name: Hawn-Delaney (GWP) #1

Project Number:

Sampler Name (Print): Jacob Harter / Mike Danna

FOR LAB USE ONLY

Bill to (if different):

P.O. #:

Company:

Alt:

Address:

City:

State:

Phone #:

Fax or Email:

ANALYSIS REQUEST

Lab I.D.	Sample Name or Location	Collected		Matrix (check one)		# of containers												
		Date	Time	GROUNDWATER	SURFACEWATER	WASTEWATER	PRODUCEDWATER	SOIL	OTHER :	No preservation (general)	HNO ₃	HCl	H ₂ SO ₄	Other:	Other:	Other:		
2107-210-01	SS01	7/20/21	1015					X										
-02	SS02		1035					X										
-03	SS03		1050					X										
-04	SS04		1110					X										

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Relinquished By: [Signature]

Date: 7/27/21

Time: 2:15

Received By: [Signature]

Relinquished By:

Date:

Time:

Received By:

Temperature at receipt:

CHECKED BY:

20.9°C

DJ

ADDITIONAL REMARKS:

Report to State? (Circle)

Yes

No

#3 Laser On Ice

* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.