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25 October 2022

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 10/06/22 09:40. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jeremy D. Allen', is written in a cursive style.

Jeremy D Allen
Laboratory Director

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. TNI Certificate Number: T104704514-22-15

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. TNI Certificate Number: T104704398-22-15



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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS01	2210059-01	Solid	10/05/22 08:55	10/06/22 09:40	
SS02	2210059-02	Solid	10/05/22 09:00	10/06/22 09:40	
SS03	2210059-03	Solid	10/05/22 09:05	10/06/22 09:40	
SS04	2210059-04	Solid	10/05/22 09:10	10/06/22 09:40	
SS05	2210059-05	Solid	10/05/22 09:15	10/06/22 09:40	
SS06	2210059-06	Solid	10/05/22 09:20	10/06/22 09:40	
SS07	2210059-07	Solid	10/05/22 09:25	10/06/22 09:40	
SS08	2210059-08	Solid	10/05/22 09:30	10/06/22 09:40	

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Jeremy D Allen, Laboratory Director

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Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS01

2210059-01 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Hexavalent Chromium	0.298	0.250	0.128	mg/kg dry	25	10/19/22 09:57	3060A/3500-Cr B		HTB
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Saturated Paste Extraction

Calcium	129	0.500	0.289	mg/L	5	10/24/22 14:03	EPA200.7		AES
Conductivity	950			umho/cm@25 C	1	10/19/22 14:15	ASA#9 10-3.3		AWG
Magnesium	24.8	0.500	0.327	mg/L	5	10/24/22 14:04	EPA200.7		AES
pH	7.35			pH Units	1	10/19/22 14:15	ASA#9 10-3.2		AWG
SAR	0.78			No Unit	1	10/24/22 14:03	Calculation		AES
Sodium	36.7	5.00	0.396	mg/L	5	10/24/22 14:03	EPA200.7		AES

Total Metals by ICP

Barium	97.9	5.00	1.10	mg/kg dry	100	10/18/22 14:10	6010B		AES
Cadmium	<5.00	5.00	2.54	mg/kg dry	100	10/18/22 14:10	6010B		AES
Chromium	15.4	5.00	1.58	mg/kg dry	100	10/18/22 14:10	6010B		AES
Copper	8.03	5.00	2.83	mg/kg dry	100	10/18/22 14:10	6010B		AES
Lead	12.0	10.0	4.02	mg/kg dry	100	10/18/22 14:10	6010B		AES
Nickel	7.75	5.00	2.41	mg/kg dry	100	10/18/22 14:10	6010B		AES
Selenium	<20.0	20.0	5.39	mg/kg dry	100	10/18/22 14:10	6010B		AES
Silver	<1.00	1.00	0.518	mg/kg dry	100	10/18/22 14:10	6010B		AES
Zinc	35.6	10.0	2.18	mg/kg dry	100	10/18/22 14:10	6010B		AES

Total Metals by ICPMS

Arsenic	3.15	1.00	0.158	mg/kg dry	1000	10/17/22 16:52	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	10/20/22 12:13	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	10/10/22 23:31	8015B		MS
DRO >C10-C28*	824	10.0	4.26	mg/kg	1	10/10/22 23:31	8015B		MS
EXT DRO >C28-C36	685	10.0	4.26	mg/kg	1	10/10/22 23:31	8015B		MS

Surrogate: 1-Chlorooctane	82.8 %	45.3-161	10/10/22 23:31	8015B	MS
Surrogate: 1-Chlorooctadecane	90.2 %	46.3-178	10/10/22 23:31	8015B	MS

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Jeremy D Allen, Laboratory Director

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Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS01

2210059-01 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	10/11/22 13:57	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	10/11/22 13:57	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	10/11/22 13:57	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	10/11/22 13:57	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	10/11/22 13:57	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0256	mg/kg	50	10/11/22 13:57	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	10/11/22 13:57	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	10/11/22 13:57	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	10/11/22 13:57	8260B		MS

Surrogate: Dibromofluoromethane 97.1 % 84.6-114 10/11/22 13:57 8260B MS

Surrogate: Toluene-d8 99.7 % 90.4-109 10/11/22 13:57 8260B MS

Surrogate: 4-Bromofluorobenzene 99.0 % 82.5-117 10/11/22 13:57 8260B MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	10/12/22 13:42	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 13:42	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	10/12/22 13:42	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	10/12/22 13:42	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	10/12/22 13:42	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 13:42	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 13:42	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	10/12/22 13:42	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 13:42	8270C		MS
Chrysene	<0.017	0.040	0.017	mg/kg	40	10/12/22 13:42	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 13:42	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	10/12/22 13:42	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	10/12/22 13:42	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 13:42	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 13:42	8270C		MS

Surrogate: Nitrobenzene-d5 71.4 % 39.6-121 10/12/22 13:42 8270C MS

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Jeremy D Allen, Laboratory Director

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PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS01

2210059-01 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Surrogate: 2-Fluorobiphenyl	94.0 %	39.8-134	10/12/22 13:42	8270C	MS
Surrogate: Terphenyl-dl4	78.5 %	33.3-136	10/12/22 13:42	8270C	MS

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Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS02

2210059-02 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Hexavalent Chromium	<0.250	0.250	0.128	mg/kg dry	25	10/19/22 09:57	3060A/3500-Cr B		HTB
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Saturated Paste Extraction

Calcium	38.2	0.100	0.058	mg/L	1	10/24/22 14:05	EPA200.7		AES
Conductivity	362			umho/cm@25 C	1	10/19/22 14:15	ASA#9 10-3.3		AWG
Magnesium	12.3	0.100	0.065	mg/L	1	10/24/22 14:05	EPA200.7		AES
pH	7.79			pH Units	1	10/19/22 14:15	ASA#9 10-3.2		AWG
SAR	0.64			No Unit	1	10/24/22 14:05	Calculation		AES
Sodium	17.7	1.00	0.079	mg/L	1	10/24/22 14:05	EPA200.7		AES

Total Metals by ICP

Barium	78.2	5.00	1.10	mg/kg dry	100	10/18/22 14:14	6010B		AES
Cadmium	<5.00	5.00	2.54	mg/kg dry	100	10/18/22 14:14	6010B		AES
Chromium	8.78	5.00	1.58	mg/kg dry	100	10/18/22 14:14	6010B		AES
Copper	<5.00	5.00	2.83	mg/kg dry	100	10/18/22 14:14	6010B		AES
Lead	<10.0	10.0	4.02	mg/kg dry	100	10/18/22 14:14	6010B		AES
Nickel	<5.00	5.00	2.41	mg/kg dry	100	10/18/22 14:14	6010B		AES
Selenium	<20.0	20.0	5.39	mg/kg dry	100	10/18/22 14:14	6010B		AES
Silver	<1.00	1.00	0.518	mg/kg dry	100	10/18/22 14:14	6010B		AES
Zinc	23.7	10.0	2.18	mg/kg dry	100	10/18/22 14:14	6010B		AES

Total Metals by ICPMS

Arsenic	2.47	1.00	0.158	mg/kg dry	1000	10/17/22 16:53	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	10/20/22 12:18	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	10/10/22 23:52	8015B		MS
DRO >C10-C28*	<10.0	10.0	4.26	mg/kg	1	10/10/22 23:52	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	10/10/22 23:52	8015B		MS

Surrogate: 1-Chlorooctane	79.8 %	45.3-161	10/10/22 23:52	8015B	MS
Surrogate: 1-Chlorooctadecane	90.8 %	46.3-178	10/10/22 23:52	8015B	MS

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Jeremy D Allen, Laboratory Director

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Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS02

2210059-02 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	10/11/22 14:20	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	10/11/22 14:20	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	10/11/22 14:20	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	10/11/22 14:20	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	10/11/22 14:20	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0256	mg/kg	50	10/11/22 14:20	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	10/11/22 14:20	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	10/11/22 14:20	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	10/11/22 14:20	8260B		MS

Surrogate: Dibromofluoromethane 95.6 % 84.6-114 10/11/22 14:20 8260B MS

Surrogate: Toluene-d8 100 % 90.4-109 10/11/22 14:20 8260B MS

Surrogate: 4-Bromofluorobenzene 102 % 82.5-117 10/11/22 14:20 8260B MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	10/15/22 02:08	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	10/15/22 02:08	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	10/15/22 02:08	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	10/15/22 02:08	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	10/15/22 02:08	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	10/15/22 02:08	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/15/22 02:08	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	10/15/22 02:08	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	10/15/22 02:08	8270C		MS
Chrysene	<0.017	0.040	0.017	mg/kg	40	10/15/22 02:08	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/15/22 02:08	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	10/15/22 02:08	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	10/15/22 02:08	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	10/15/22 02:08	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	10/15/22 02:08	8270C		MS

Surrogate: Nitrobenzene-d5 67.6 % 39.6-121 10/15/22 02:08 8270C MS

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Jeremy D Allen, Laboratory Director

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Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS02

2210059-02 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Surrogate: 2-Fluorobiphenyl	74.4 %	39.8-134				10/15/22 02:08	8270C		MS
Surrogate: Terphenyl-dl4	64.4 %	33.3-136				10/15/22 02:08	8270C		MS

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS03

2210059-03 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Hexavalent Chromium	<0.250	0.250	0.128	mg/kg dry	25	10/19/22 09:57	3060A/3500-Cr B		HTB
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Saturated Paste Extraction

Calcium	123	0.100	0.058	mg/L	1	10/24/22 14:08	EPA200.7		AES
Conductivity	850			umho/cm@25 C	1	10/19/22 14:15	ASA#9 10-3.3		AWG
Magnesium	10.2	0.100	0.065	mg/L	1	10/24/22 14:08	EPA200.7		AES
pH	7.77			pH Units	1	10/19/22 14:15	ASA#9 10-3.2		AWG
SAR	0.48			No Unit	1	10/24/22 14:08	Calculation		AES
Sodium	20.7	1.00	0.079	mg/L	1	10/24/22 14:08	EPA200.7		AES

Total Metals by ICP

Barium	81.1	5.00	1.10	mg/kg dry	100	10/18/22 14:19	6010B		AES
Cadmium	<5.00	5.00	2.54	mg/kg dry	100	10/18/22 14:19	6010B		AES
Chromium	10.3	5.00	1.58	mg/kg dry	100	10/18/22 14:19	6010B		AES
Copper	6.12	5.00	2.83	mg/kg dry	100	10/18/22 14:19	6010B		AES
Lead	<10.0	10.0	4.02	mg/kg dry	100	10/18/22 14:19	6010B		AES
Nickel	<5.00	5.00	2.41	mg/kg dry	100	10/18/22 14:19	6010B		AES
Selenium	<20.0	20.0	5.39	mg/kg dry	100	10/18/22 14:18	6010B		AES
Silver	<1.00	1.00	0.518	mg/kg dry	100	10/18/22 14:18	6010B		AES
Zinc	41.2	10.0	2.18	mg/kg dry	100	10/18/22 14:19	6010B		AES

Total Metals by ICPMS

Arsenic	2.54	1.00	0.158	mg/kg dry	1000	10/17/22 16:55	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	10/20/22 12:20	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	10/11/22 00:12	8015B		MS
DRO >C10-C28*	<10.0	10.0	4.26	mg/kg	1	10/11/22 00:12	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	10/11/22 00:12	8015B		MS

Surrogate: 1-Chlorooctane	80.6 %	45.3-161	10/11/22 00:12	8015B	MS
Surrogate: 1-Chlorooctadecane	92.9 %	46.3-178	10/11/22 00:12	8015B	MS

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS03

2210059-03 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	10/11/22 14:43	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	10/11/22 14:43	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	10/11/22 14:43	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	10/11/22 14:43	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	10/11/22 14:43	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0256	mg/kg	50	10/11/22 14:43	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	10/11/22 14:43	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	10/11/22 14:43	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	10/11/22 14:43	8260B		MS

Surrogate: Dibromofluoromethane 96.1 % 84.6-114 10/11/22 14:43 8260B MS

Surrogate: Toluene-d8 98.8 % 90.4-109 10/11/22 14:43 8260B MS

Surrogate: 4-Bromofluorobenzene 99.2 % 82.5-117 10/11/22 14:43 8260B MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	10/12/22 14:41	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 14:41	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	10/12/22 14:41	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	10/12/22 14:41	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	10/12/22 14:41	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 14:41	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 14:41	8270C		MS
Pyrene*	0.014	0.040	0.013	mg/kg	40	10/12/22 14:41	8270C	J	MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 14:41	8270C		MS
Chrysene	<0.017	0.040	0.017	mg/kg	40	10/12/22 14:41	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 14:41	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	10/12/22 14:41	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	10/12/22 14:41	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 14:41	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 14:41	8270C		MS

Surrogate: Nitrobenzene-d5 72.3 % 39.6-121 10/12/22 14:41 8270C MS

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Jeremy D Allen, Laboratory Director

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Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS03

2210059-03 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Surrogate: 2-Fluorobiphenyl	89.1 %	39.8-134	10/12/22 14:41	8270C	MS
Surrogate: Terphenyl-dl4	94.6 %	33.3-136	10/12/22 14:41	8270C	MS

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Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS04

2210059-04 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Hexavalent Chromium	<0.250	0.250	0.128	mg/kg dry	25	10/19/22 09:57	3060A/3500-Cr B		HTB
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Saturated Paste Extraction

Calcium	134	0.100	0.058	mg/L	1	10/24/22 14:12	EPA200.7		AES
Conductivity	823			umho/cm@25 C	1	10/19/22 14:15	ASA#9 10-3.3		AWG
Magnesium	9.21	0.100	0.065	mg/L	1	10/24/22 14:12	EPA200.7		AES
pH	8.93			pH Units	1	10/19/22 14:15	ASA#9 10-3.2		AWG
SAR	0.28			No Unit	1	10/24/22 14:12	Calculation		AES
Sodium	12.6	1.00	0.079	mg/L	1	10/24/22 14:12	EPA200.7		AES

Total Metals by ICP

Barium	142	5.00	1.10	mg/kg dry	100	10/18/22 14:23	6010B		AES
Cadmium	<5.00	5.00	2.54	mg/kg dry	100	10/18/22 14:23	6010B		AES
Chromium	18.8	5.00	1.58	mg/kg dry	100	10/18/22 14:23	6010B		AES
Copper	7.88	5.00	2.83	mg/kg dry	100	10/18/22 14:23	6010B		AES
Lead	<10.0	10.0	4.02	mg/kg dry	100	10/18/22 14:23	6010B		AES
Nickel	8.24	5.00	2.41	mg/kg dry	100	10/18/22 14:23	6010B		AES
Selenium	<20.0	20.0	5.39	mg/kg dry	100	10/18/22 14:22	6010B		AES
Silver	<1.00	1.00	0.518	mg/kg dry	100	10/18/22 14:22	6010B		AES
Zinc	36.3	10.0	2.18	mg/kg dry	100	10/18/22 14:23	6010B		AES

Total Metals by ICPMS

Arsenic	3.23	1.00	0.158	mg/kg dry	1000	10/17/22 16:57	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	10/20/22 12:22	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	10/11/22 00:34	8015B		MS
DRO >C10-C28*	<10.0	10.0	4.26	mg/kg	1	10/11/22 00:34	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	10/11/22 00:34	8015B		MS

Surrogate: 1-Chlorooctane 82.9 % 45.3-161 10/11/22 00:34 8015B MS

Surrogate: 1-Chlorooctadecane 96.1 % 46.3-178 10/11/22 00:34 8015B MS

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Jeremy D Allen, Laboratory Director

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Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS04

2210059-04 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	10/11/22 15:06	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	10/11/22 15:06	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	10/11/22 15:06	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	10/11/22 15:06	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	10/11/22 15:06	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0256	mg/kg	50	10/11/22 15:06	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	10/11/22 15:06	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	10/11/22 15:06	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	10/11/22 15:06	8260B		MS

Surrogate: Dibromofluoromethane 95.1 % 84.6-114 10/11/22 15:06 8260B MS

Surrogate: Toluene-d8 99.9 % 90.4-109 10/11/22 15:06 8260B MS

Surrogate: 4-Bromofluorobenzene 99.1 % 82.5-117 10/11/22 15:06 8260B MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	10/12/22 15:11	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 15:11	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	10/12/22 15:11	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	10/12/22 15:11	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	10/12/22 15:11	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 15:11	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 15:11	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	10/12/22 15:11	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 15:11	8270C		MS
Chrysene	<0.017	0.040	0.017	mg/kg	40	10/12/22 15:11	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 15:11	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	10/12/22 15:11	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	10/12/22 15:11	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 15:11	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 15:11	8270C		MS

Surrogate: Nitrobenzene-d5 65.6 % 39.6-121 10/12/22 15:11 8270C MS

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Jeremy D Allen, Laboratory Director

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PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS04

2210059-04 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Surrogate: 2-Fluorobiphenyl	80.3 %	39.8-134				10/12/22 15:11	8270C		MS
Surrogate: Terphenyl-dl4	84.0 %	33.3-136				10/12/22 15:11	8270C		MS

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS05**2210059-05 (Soil)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Hexavalent Chromium	0.360	0.250	0.128	mg/kg dry	25	10/19/22 09:57	3060A/3500-Cr B		HTB
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Saturated Paste Extraction

Calcium	45.5	0.100	0.058	mg/L	1	10/24/22 14:16	EPA200.7		AES
Conductivity	810			umho/cm@25 C	1	10/19/22 14:15	ASA#9 10-3.3		AWG
Magnesium	8.34	0.100	0.065	mg/L	1	10/24/22 14:16	EPA200.7		AES
pH	7.57			pH Units	1	10/19/22 14:15	ASA#9 10-3.2		AWG
SAR	0.31			No Unit	1	10/24/22 14:16	Calculation		AES
Sodium	8.58	1.00	0.079	mg/L	1	10/24/22 14:16	EPA200.7		AES

Total Metals by ICP

Barium	119	5.00	1.10	mg/kg dry	100	10/18/22 14:27	6010B		AES
Cadmium	<5.00	5.00	2.54	mg/kg dry	100	10/18/22 14:27	6010B		AES
Chromium	16.0	5.00	1.58	mg/kg dry	100	10/18/22 14:27	6010B		AES
Copper	5.39	5.00	2.83	mg/kg dry	100	10/18/22 14:27	6010B		AES
Lead	<10.0	10.0	4.02	mg/kg dry	100	10/18/22 14:27	6010B		AES
Nickel	8.66	5.00	2.41	mg/kg dry	100	10/18/22 14:27	6010B		AES
Selenium	<20.0	20.0	5.39	mg/kg dry	100	10/18/22 14:27	6010B		AES
Silver	<1.00	1.00	0.518	mg/kg dry	100	10/18/22 14:27	6010B		AES
Zinc	36.0	10.0	2.18	mg/kg dry	100	10/18/22 14:27	6010B		AES

Total Metals by ICPMS

Arsenic	5.52	1.00	0.158	mg/kg dry	1000	10/17/22 16:58	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	10/20/22 12:29	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	10/11/22 00:56	8015B		MS
DRO >C10-C28*	<10.0	10.0	4.26	mg/kg	1	10/11/22 00:56	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	10/11/22 00:56	8015B		MS

Surrogate: 1-Chlorooctane 79.4 % 45.3-161 10/11/22 00:56 8015B MS

Surrogate: 1-Chlorooctadecane 90.8 % 46.3-178 10/11/22 00:56 8015B MS

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Jeremy D Allen, Laboratory Director

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Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS05

2210059-05 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	10/11/22 15:29	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	10/11/22 15:29	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	10/11/22 15:29	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	10/11/22 15:29	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	10/11/22 15:29	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0256	mg/kg	50	10/11/22 15:29	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	10/11/22 15:29	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	10/11/22 15:29	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	10/11/22 15:29	8260B		MS

Surrogate: Dibromofluoromethane 94.8 % 84.6-114 10/11/22 15:29 8260B MS

Surrogate: Toluene-d8 100 % 90.4-109 10/11/22 15:29 8260B MS

Surrogate: 4-Bromofluorobenzene 100 % 82.5-117 10/11/22 15:29 8260B MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	10/12/22 15:40	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 15:40	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	10/12/22 15:40	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	10/12/22 15:40	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	10/12/22 15:40	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 15:40	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 15:40	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	10/12/22 15:40	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 15:40	8270C		MS
Chrysene	<0.017	0.040	0.017	mg/kg	40	10/12/22 15:40	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 15:40	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	10/12/22 15:40	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	10/12/22 15:40	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 15:40	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 15:40	8270C		MS

Surrogate: Nitrobenzene-d5 70.0 % 39.6-121 10/12/22 15:40 8270C MS

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS05

2210059-05 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Surrogate: 2-Fluorobiphenyl	87.0 %	39.8-134				10/12/22 15:40	8270C		MS
Surrogate: Terphenyl-dl4	87.1 %	33.3-136				10/12/22 15:40	8270C		MS

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Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS06

2210059-06 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Hexavalent Chromium	<0.250	0.250	0.128	mg/kg dry	25	10/19/22 09:57	3060A/3500-Cr B		HTB
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Saturated Paste Extraction

Calcium	78.0	0.100	0.058	mg/L	1	10/24/22 14:18	EPA200.7		AES
Conductivity	566			umho/cm@25 C	1	10/19/22 14:15	ASA#9 10-3.3		AWG
Magnesium	13.1	0.100	0.065	mg/L	1	10/24/22 14:18	EPA200.7		AES
pH	7.45			pH Units	1	10/19/22 14:15	ASA#9 10-3.2		AWG
SAR	0.17			No Unit	1	10/24/22 14:18	Calculation		AES
Sodium	6.16	1.00	0.079	mg/L	1	10/24/22 14:18	EPA200.7		AES

Total Metals by ICP

Barium	86.0	5.00	1.10	mg/kg dry	100	10/18/22 14:31	6010B		AES
Cadmium	<5.00	5.00	2.54	mg/kg dry	100	10/18/22 14:31	6010B		AES
Chromium	10.7	5.00	1.58	mg/kg dry	100	10/18/22 14:31	6010B		AES
Copper	<5.00	5.00	2.83	mg/kg dry	100	10/18/22 14:31	6010B		AES
Lead	<10.0	10.0	4.02	mg/kg dry	100	10/18/22 14:31	6010B		AES
Nickel	5.22	5.00	2.41	mg/kg dry	100	10/18/22 14:31	6010B		AES
Selenium	<20.0	20.0	5.39	mg/kg dry	100	10/18/22 14:31	6010B		AES
Silver	<1.00	1.00	0.518	mg/kg dry	100	10/18/22 14:31	6010B		AES
Zinc	27.7	10.0	2.18	mg/kg dry	100	10/18/22 14:31	6010B		AES

Total Metals by ICPMS

Arsenic	2.77	1.00	0.158	mg/kg dry	1000	10/17/22 17:00	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	10/20/22 12:31	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	10/11/22 01:17	8015B		MS
DRO >C10-C28*	<10.0	10.0	4.26	mg/kg	1	10/11/22 01:17	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	10/11/22 01:17	8015B		MS

Surrogate: 1-Chlorooctane	80.5 %	45.3-161	10/11/22 01:17	8015B	MS
Surrogate: 1-Chlorooctadecane	91.6 %	46.3-178	10/11/22 01:17	8015B	MS

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Jeremy D Allen, Laboratory Director

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Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS06

2210059-06 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	10/11/22 15:51	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	10/11/22 15:51	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	10/11/22 15:51	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	10/11/22 15:51	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	10/11/22 15:51	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0256	mg/kg	50	10/11/22 15:51	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	10/11/22 15:51	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	10/11/22 15:51	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	10/11/22 15:51	8260B		MS

Surrogate: Dibromofluoromethane 94.4 % 84.6-114 10/11/22 15:51 8260B MS

Surrogate: Toluene-d8 100 % 90.4-109 10/11/22 15:51 8260B MS

Surrogate: 4-Bromofluorobenzene 99.8 % 82.5-117 10/11/22 15:51 8260B MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	10/12/22 16:10	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 16:10	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	10/12/22 16:10	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	10/12/22 16:10	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	10/12/22 16:10	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 16:10	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 16:10	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	10/12/22 16:10	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 16:10	8270C		MS
Chrysene	<0.017	0.040	0.017	mg/kg	40	10/12/22 16:10	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 16:10	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	10/12/22 16:10	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	10/12/22 16:10	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 16:10	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 16:10	8270C		MS

Surrogate: Nitrobenzene-d5 73.8 % 39.6-121 10/12/22 16:10 8270C MS

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Jeremy D Allen, Laboratory Director

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS06

2210059-06 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Surrogate: 2-Fluorobiphenyl	94.2 %	39.8-134	10/12/22 16:10	8270C	MS
Surrogate: Terphenyl-dl4	88.4 %	33.3-136	10/12/22 16:10	8270C	MS

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PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS07

2210059-07 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Hexavalent Chromium	0.670	0.250	0.128	mg/kg dry	25	10/19/22 09:57	3060A/3500-Cr B		HTB
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Saturated Paste Extraction

Calcium	321	0.500	0.289	mg/L	5	10/24/22 14:25	EPA200.7		AES
Conductivity	2080			umho/cm@25 C	1	10/19/22 14:15	ASA#9 10-3.3		AWG
Magnesium	40.3	0.500	0.327	mg/L	5	10/24/22 14:25	EPA200.7		AES
pH	6.46			pH Units	1	10/19/22 14:15	ASA#9 10-3.2		AWG
SAR	0.37			No Unit	1	10/24/22 14:25	Calculation		AES
Sodium	26.1	5.00	0.396	mg/L	5	10/24/22 14:25	EPA200.7		AES

Total Metals by ICP

Barium	54.9	5.00	1.10	mg/kg dry	100	10/18/22 14:36	6010B		AES
Cadmium	<5.00	5.00	2.54	mg/kg dry	100	10/18/22 14:36	6010B		AES
Chromium	6.99	5.00	1.58	mg/kg dry	100	10/18/22 14:36	6010B		AES
Copper	<5.00	5.00	2.83	mg/kg dry	100	10/18/22 14:36	6010B		AES
Lead	<10.0	10.0	4.02	mg/kg dry	100	10/18/22 14:36	6010B		AES
Nickel	<5.00	5.00	2.41	mg/kg dry	100	10/18/22 14:36	6010B		AES
Selenium	<20.0	20.0	5.39	mg/kg dry	100	10/18/22 14:35	6010B		AES
Silver	<1.00	1.00	0.518	mg/kg dry	100	10/18/22 14:35	6010B		AES
Zinc	20.2	10.0	2.18	mg/kg dry	100	10/18/22 14:36	6010B		AES

Total Metals by ICPMS

Arsenic	2.13	1.00	0.158	mg/kg dry	1000	10/17/22 17:01	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	10/20/22 12:34	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	10/11/22 01:38	8015B		MS
DRO >C10-C28*	68.9	10.0	4.26	mg/kg	1	10/11/22 01:38	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	10/11/22 01:38	8015B		MS

Surrogate: 1-Chlorooctane 88.2 % 45.3-161 10/11/22 01:38 8015B MS

Surrogate: 1-Chlorooctadecane 97.0 % 46.3-178 10/11/22 01:38 8015B MS

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Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS07

2210059-07 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	10/11/22 16:14	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	10/11/22 16:14	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	10/11/22 16:14	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	10/11/22 16:14	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	10/11/22 16:14	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0256	mg/kg	50	10/11/22 16:14	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	10/11/22 16:14	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	10/11/22 16:14	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	10/11/22 16:14	8260B		MS

Surrogate: Dibromofluoromethane 96.1 % 84.6-114 10/11/22 16:14 8260B MS

Surrogate: Toluene-d8 100 % 90.4-109 10/11/22 16:14 8260B MS

Surrogate: 4-Bromofluorobenzene 99.4 % 82.5-117 10/11/22 16:14 8260B MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	10/12/22 16:40	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 16:40	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	10/12/22 16:40	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	10/12/22 16:40	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	10/12/22 16:40	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 16:40	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 16:40	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	10/12/22 16:40	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 16:40	8270C		MS
Chrysene	<0.017	0.040	0.017	mg/kg	40	10/12/22 16:40	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 16:40	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	10/12/22 16:40	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	10/12/22 16:40	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 16:40	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 16:40	8270C		MS

Surrogate: Nitrobenzene-d5 70.9 % 39.6-121 10/12/22 16:40 8270C MS

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Jeremy D Allen, Laboratory Director

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Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS07

2210059-07 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Surrogate: 2-Fluorobiphenyl	91.7 %	39.8-134				10/12/22 16:40	8270C		MS
Surrogate: Terphenyl-dl4	90.6 %	33.3-136				10/12/22 16:40	8270C		MS

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS08**2210059-08 (Soil)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Hexavalent Chromium	0.298	0.250	0.128	mg/kg dry	25	10/19/22 09:57	3060A/3500-Cr B		HTB
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Saturated Paste Extraction

Calcium	46.8	0.100	0.058	mg/L	1	10/24/22 14:27	EPA200.7		AES
Conductivity	339			umho/cm@25 C	1	10/19/22 14:15	ASA#9 10-3.3		AWG
Magnesium	8.16	0.100	0.065	mg/L	1	10/24/22 14:28	EPA200.7		AES
pH	7.19			pH Units	1	10/19/22 14:15	ASA#9 10-3.2		AWG
SAR	0.24			No Unit	1	10/24/22 14:27	Calculation		AES
Sodium	6.81	1.00	0.079	mg/L	1	10/24/22 14:27	EPA200.7		AES

Total Metals by ICP

Barium	68.7	5.00	1.10	mg/kg dry	100	10/18/22 14:38	6010B		AES
Cadmium	<5.00	5.00	2.54	mg/kg dry	100	10/18/22 14:38	6010B		AES
Chromium	9.08	5.00	1.58	mg/kg dry	100	10/18/22 14:38	6010B		AES
Copper	<5.00	5.00	2.83	mg/kg dry	100	10/18/22 14:38	6010B		AES
Lead	<10.0	10.0	4.02	mg/kg dry	100	10/18/22 14:38	6010B		AES
Nickel	<5.00	5.00	2.41	mg/kg dry	100	10/18/22 14:38	6010B		AES
Selenium	<20.0	20.0	5.39	mg/kg dry	100	10/18/22 14:37	6010B		AES
Silver	<1.00	1.00	0.518	mg/kg dry	100	10/18/22 14:37	6010B		AES
Zinc	24.5	10.0	2.18	mg/kg dry	100	10/18/22 14:38	6010B		AES

Total Metals by ICPMS

Arsenic	2.55	1.00	0.158	mg/kg dry	1000	10/17/22 17:03	6020A		AES
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Hot Water Extractable

Boron	<1.20	1.20	0.568	mg/L	4	10/20/22 12:36	EPA200.7		AES
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0	10.0	6.25	mg/kg	1	10/11/22 01:58	8015B		MS
DRO >C10-C28*	20.2	10.0	4.26	mg/kg	1	10/11/22 01:58	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	4.26	mg/kg	1	10/11/22 01:58	8015B		MS

Surrogate: 1-Chlorooctane 84.5 % 45.3-161 10/11/22 01:58 8015B MS

Surrogate: 1-Chlorooctadecane 100 % 46.3-178 10/11/22 01:58 8015B MS

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS08

2210059-08 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Benzene*	<0.0250	0.0250	0.00885	mg/kg	50	10/11/22 16:37	8260B		MS
Toluene*	<0.0250	0.0250	0.00670	mg/kg	50	10/11/22 16:37	8260B		MS
Ethylbenzene*	<0.0250	0.0250	0.00405	mg/kg	50	10/11/22 16:37	8260B		MS
m+p - Xylene*	<0.0500	0.0500	0.0186	mg/kg	50	10/11/22 16:37	8260B		MS
o-Xylene*	<0.0250	0.0250	0.00700	mg/kg	50	10/11/22 16:37	8260B		MS
Total Xylenes*	<0.0750	0.0750	0.0256	mg/kg	50	10/11/22 16:37	8260B		MS
1,3,5-Trimethylbenzene	<0.0250	0.0250	0.00450	mg/kg	50	10/11/22 16:37	8260B		MS
1,2,4-Trimethylbenzene	<0.0250	0.0250	0.00650	mg/kg	50	10/11/22 16:37	8260B		MS
Naphthalene*	<0.0250	0.0250	0.00500	mg/kg	50	10/11/22 16:37	8260B		MS

Surrogate: Dibromofluoromethane 97.6 % 84.6-114 10/11/22 16:37 8260B MS

Surrogate: Toluene-d8 102 % 90.4-109 10/11/22 16:37 8260B MS

Surrogate: 4-Bromofluorobenzene 104 % 82.5-117 10/11/22 16:37 8260B MS

Polynuclear Aromatic Compounds by GC/MS

Naphthalene*	<0.015	0.040	0.015	mg/kg	40	10/12/22 17:10	8270C		MS
2-Methylnaphthalene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 17:10	8270C		MS
1-Methylnaphthalene	<0.016	0.040	0.016	mg/kg	40	10/12/22 17:10	8270C		MS
Acenaphthene*	<0.024	0.040	0.024	mg/kg	40	10/12/22 17:10	8270C		MS
Fluorene*	<0.014	0.040	0.014	mg/kg	40	10/12/22 17:10	8270C		MS
Anthracene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 17:10	8270C		MS
Fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 17:10	8270C		MS
Pyrene*	<0.013	0.040	0.013	mg/kg	40	10/12/22 17:10	8270C		MS
Benzo[a]anthracene*	<0.023	0.040	0.023	mg/kg	40	10/12/22 17:10	8270C		MS
Chrysene	<0.017	0.040	0.017	mg/kg	40	10/12/22 17:10	8270C		MS
Benzo[b]fluoranthene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 17:10	8270C		MS
Benzo[k]fluoranthene*	<0.016	0.040	0.016	mg/kg	40	10/12/22 17:10	8270C		MS
Benzo[a]pyrene*	<0.018	0.040	0.018	mg/kg	40	10/12/22 17:10	8270C		MS
Indeno[1,2,3-cd]pyrene*	<0.017	0.040	0.017	mg/kg	40	10/12/22 17:10	8270C		MS
Dibenz[a,h]anthracene*	<0.019	0.040	0.019	mg/kg	40	10/12/22 17:10	8270C		MS

Surrogate: Nitrobenzene-d5 51.7 % 39.6-121 10/12/22 17:10 8270C MS

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

SS08

2210059-08 (Soil)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

Polynuclear Aromatic Compounds by GC/MS

Surrogate: 2-Fluorobiphenyl	74.2 %	39.8-134				10/12/22 17:10	8270C		MS
Surrogate: Terphenyl-dl4	79.0 %	33.3-136				10/12/22 17:10	8270C		MS

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Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B222822 - General Prep - Wet Chem

Blank (B222822-BLK1)

Prepared: 10/18/22 Analyzed: 10/19/22

Hexavalent Chromium	ND	0.250	mg/kg dry
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LCS (B222822-BS1)

Prepared: 10/18/22 Analyzed: 10/19/22

Hexavalent Chromium	2.41	0.250	mg/kg dry	2.50	96.4	85-115
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Saturated Paste Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B222884 - Paste Extract

Blank (B222884-BLK1)

Prepared: 10/18/22 Analyzed: 10/24/22

Calcium	ND	0.100	mg/L
Magnesium	ND	0.100	mg/L
SAR	0.00	No Unit	
Sodium	ND	1.00	mg/L

Reference (B222884-SRM1)

Prepared: 10/18/22 Analyzed: 10/24/22

SAR	10.4	No Unit	10.5	99.2	90-110
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Batch B222885 - Paste Extract

Reference (B222885-SRM1)

Prepared: 10/18/22 Analyzed: 10/19/22

pH	6.82	pH Units	6.93	98.4	92-108
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Batch B222886 - Paste Extract

Reference (B222886-SRM1)

Prepared: 10/18/22 Analyzed: 10/19/22

Conductivity	8420	umho/cm@2 5C	8340	101	90-110
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Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

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 B222842 - EPA 3050

Blank (B222842-BLK1)

Prepared: 10/13/22 Analyzed: 10/18/22

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 (B222842-BS1)

Prepared: 10/13/22 Analyzed: 10/18/22

Barium	194	5.00	mg/kg dry	200	97.2	80-120
Cadmium	179	5.00	mg/kg dry	200	89.7	80-120
Chromium	197	5.00	mg/kg dry	200	98.5	80-120
Copper	393	5.00	mg/kg dry	400	98.1	80-120
Lead	185	10.0	mg/kg dry	200	92.3	80-120
Nickel	182	5.00	mg/kg dry	200	91.0	80-120
Selenium	780	20.0	mg/kg dry	800	97.5	80-120
Silver	9.14	1.00	mg/kg dry	10.0	91.4	80-120
Zinc	172	10.0	mg/kg dry	200	86.2	80-120

LCS Dup (B222842-BSD1)

Prepared: 10/13/22 Analyzed: 10/18/22

Barium	191	5.00	mg/kg dry	200	95.3	80-120	1.92	20
Cadmium	176	5.00	mg/kg dry	200	87.9	80-120	2.06	20
Chromium	193	5.00	mg/kg dry	200	96.4	80-120	2.13	20
Copper	395	5.00	mg/kg dry	400	98.7	80-120	0.591	20
Lead	182	10.0	mg/kg dry	200	91.2	80-120	1.24	20
Nickel	180	5.00	mg/kg dry	200	90.2	80-120	0.929	20
Selenium	774	20.0	mg/kg dry	800	96.7	80-120	0.765	20
Silver	9.12	1.00	mg/kg dry	10.0	91.2	80-120	0.192	20
Zinc	171	10.0	mg/kg dry	200	85.3	80-120	1.10	20

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

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 B222843 - EPA 3050M

Blank (B222843-BLK1)

Prepared: 10/14/22 Analyzed: 10/17/22

Arsenic	ND	1.00	mg/kg dry							
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LCS (B222843-BS1)

Prepared: 10/14/22 Analyzed: 10/17/22

Arsenic	4.80	1.00	mg/kg dry	5.00		96.1	80-120			
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LCS Dup (B222843-BSD1)

Prepared: 10/14/22 Analyzed: 10/17/22

Arsenic	5.05	1.00	mg/kg dry	5.00		101	80-120	5.05	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 B222874 - Hot Water Soluble Metals Extract

Blank (B222874-BLK1)

Prepared: 10/17/22 Analyzed: 10/18/22

Boron	ND	1.20	mg/L							
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Cottonwood Consulting
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Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

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 2100748 - General Prep - Organics

Blank (2100748-BLK1)

Prepared: 10/07/22 Analyzed: 10/10/22

Surrogate: 1-Chlorooctadecane	45.7		mg/kg	50.0		91.4	46.3-178			
Surrogate: 1-Chlorooctane	38.6		mg/kg	50.0		77.3	45.3-161			
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 (2100748-BS1)

Prepared: 10/07/22 Analyzed: 10/10/22

Surrogate: 1-Chlorooctadecane	56.1		mg/kg	50.0		112	46.3-178			
Surrogate: 1-Chlorooctane	44.6		mg/kg	50.0		89.1	45.3-161			
DRO >C10-C28	221	10.0	mg/kg	200		110	74.9-127			
GRO C6-C10	216	10.0	mg/kg	200		108	76.8-124			
Total TPH C6-C28	436	10.0	mg/kg	400		109	77.5-124			

LCS Dup (2100748-BSD1)

Prepared: 10/07/22 Analyzed: 10/10/22

Surrogate: 1-Chlorooctadecane	63.0		mg/kg	50.0		126	46.3-178			
Surrogate: 1-Chlorooctane	49.5		mg/kg	50.0		98.9	45.3-161			
DRO >C10-C28	221	10.0	mg/kg	200		111	74.9-127	0.278	18.6	
GRO C6-C10	216	10.0	mg/kg	200		108	76.8-124	0.0431	17.2	
Total TPH C6-C28	437	10.0	mg/kg	400		109	77.5-124	0.162	17.6	

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PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

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 2100732 - Volatiles**Blank (2100732-BLK1)**

Prepared: 10/07/22 Analyzed: 10/11/22

1,2,4-Trimethylbenzene	ND	0.0250	mg/kg							
1,3,5-Trimethylbenzene	ND	0.0250	mg/kg							
Surrogate: 4-Bromofluorobenzene	1.23		mg/kg	1.25		98.5	82.5-117			
Benzene	ND	0.0250	mg/kg							
Surrogate: Dibromofluoromethane	1.21		mg/kg	1.25		96.4	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							
Surrogate: Toluene-d8	1.23		mg/kg	1.25		98.6	90.4-109			
Total Xylenes	ND	0.0750	mg/kg							

LCS (2100732-BS1)

Prepared: 10/07/22 Analyzed: 10/11/22

1,2,4-Trimethylbenzene	0.538	0.0250	mg/kg	0.500		108	62.4-140			
1,3,5-Trimethylbenzene	0.539	0.0250	mg/kg	0.500		108	64.4-138			
Surrogate: 4-Bromofluorobenzene	1.29		mg/kg	1.25		103	82.5-117			
Benzene	0.473	0.0250	mg/kg	0.500		94.6	73-130			
Surrogate: Dibromofluoromethane	1.22		mg/kg	1.25		97.7	84.6-114			
Ethylbenzene	0.494	0.0250	mg/kg	0.500		98.9	75.4-127			
m+p - Xylene	0.978	0.0500	mg/kg	1.00		97.8	71.8-133			
Naphthalene	0.572	0.0250	mg/kg	0.500		114	28.7-158			
o-Xylene	0.499	0.0250	mg/kg	0.500		99.7	78.6-125			
Toluene	0.472	0.0250	mg/kg	0.500		94.3	79-122			
Surrogate: Toluene-d8	1.22		mg/kg	1.25		97.8	90.4-109			
Total Xylenes	1.48	0.0750	mg/kg	1.50		98.5	74.6-130			

LCS Dup (2100732-BS1)

Prepared: 10/07/22 Analyzed: 10/11/22

1,2,4-Trimethylbenzene	0.505	0.0250	mg/kg	0.500		101	62.4-140	6.32	38.2	
1,3,5-Trimethylbenzene	0.500	0.0250	mg/kg	0.500		100	64.4-138	7.59	39.1	
Surrogate: 4-Bromofluorobenzene	1.28		mg/kg	1.25		103	82.5-117			
Benzene	0.471	0.0250	mg/kg	0.500		94.2	73-130	0.409	17.1	
Surrogate: Dibromofluoromethane	1.21		mg/kg	1.25		97.1	84.6-114			
Ethylbenzene	0.490	0.0250	mg/kg	0.500		98.1	75.4-127	0.800	16.5	
m+p - Xylene	0.965	0.0500	mg/kg	1.00		96.5	71.8-133	1.35	19.1	
Naphthalene	0.534	0.0250	mg/kg	0.500		107	28.7-158	6.91	64	
o-Xylene	0.489	0.0250	mg/kg	0.500		97.8	78.6-125	1.91	13.2	
Toluene	0.472	0.0250	mg/kg	0.500		94.3	79-122	0.0106	18.3	

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

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 2100732 - Volatiles (Continued)

LCS Dup (2100732-BSD1) (Continued)

Prepared: 10/07/22 Analyzed: 10/11/22

Surrogate: Toluene-d8	1.23		mg/kg	1.25		98.8	90.4-109			
Total Xylenes	1.45	0.0750	mg/kg	1.50		96.9	74.6-130	1.54	16.5	

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

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 2100733 - SW846-3510

Blank (2100733-BLK1)

Prepared: 10/07/22 Analyzed: 10/12/22

1-Methylnaphthalene	ND	0.040	mg/kg							
Surrogate: 2-Fluorobiphenyl	1.64		mg/kg	2.00		82.0	39.8-134			
2-Methylnaphthalene	ND	0.040	mg/kg							
Acenaphthene	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]fluoranthene	ND	0.040	mg/kg							
Benzo[k]fluoranthene	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							
Surrogate: Nitrobenzene-d5	1.35		mg/kg	2.00		67.6	39.6-121			
Pyrene	ND	0.040	mg/kg							
Surrogate: Terphenyl-d14	1.53		mg/kg	2.00		76.5	33.3-136			

LCS (2100733-BS1)

Prepared: 10/07/22 Analyzed: 10/12/22

1-Methylnaphthalene	0.324	0.040	mg/kg	0.400		81.1	57.6-108			
Surrogate: 2-Fluorobiphenyl	1.47		mg/kg	2.00		73.7	39.8-134			
2-Methylnaphthalene	0.328	0.040	mg/kg	0.400		81.9	59-106			
Acenaphthene	0.329	0.040	mg/kg	0.400		82.4	60.9-105			
Acenaphthylene	0.325	0.040	mg/kg	0.400		81.2	57.4-107			
Anthracene	0.334	0.040	mg/kg	0.400		83.4	60.8-105			
Benzo[a]anthracene	0.356	0.040	mg/kg	0.400		89.0	56.1-121			
Benzo[a]pyrene	0.565	0.040	mg/kg	0.400		141	56.7-115			BS1
Benzo[b]fluoranthene	0.307	0.040	mg/kg	0.400		76.7	45.4-128			
Benzo[g,h,i]perylene	0.346	0.040	mg/kg	0.400		86.6	56.5-107			
Benzo[k]fluoranthene	0.326	0.040	mg/kg	0.400		81.6	49.6-119			
Carbazole	0.340	0.040	mg/kg	0.400		85.1	59.7-107			
Chrysene	0.346	0.040	mg/kg	0.400		86.5	12.2-190			
Dibenz[a,h]anthracene	0.323	0.040	mg/kg	0.400		80.7	59.1-111			
Fluoranthene	0.344	0.040	mg/kg	0.400		86.0	60.6-111			
Fluorene	0.333	0.040	mg/kg	0.400		83.2	59.3-108			
Indeno[1,2,3-cd]pyrene	0.336	0.040	mg/kg	0.400		84.1	53.4-116			
Naphthalene	0.316	0.040	mg/kg	0.400		78.9	56.5-106			

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Jeremy D Allen, Laboratory Director

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

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 2100733 - SW846-3510 (Continued)

LCS (2100733-BS1) (Continued)

Prepared: 10/07/22 Analyzed: 10/12/22

Surrogate: Nitrobenzene-d5	1.33		mg/kg	2.00		66.4	39.6-121			
Phenanthrene	0.338	0.040	mg/kg	0.400		84.4	59.9-107			
Pyrene	0.345	0.040	mg/kg	0.400		86.3	51.5-122			
Surrogate: Terphenyl-d14	1.48		mg/kg	2.00		74.1	33.3-136			

LCS Dup (2100733-BS1)

Prepared: 10/07/22 Analyzed: 10/12/22

1-Methylnaphthalene	0.337	0.040	mg/kg	0.400		84.2	57.6-108	3.72	6.22	
Surrogate: 2-Fluorobiphenyl	1.53		mg/kg	2.00		76.6	39.8-134			
2-Methylnaphthalene	0.346	0.040	mg/kg	0.400		86.6	59-106	5.58	6.23	
Acenaphthene	0.337	0.040	mg/kg	0.400		84.1	60.9-105	2.14	8.18	
Acenaphthylene	0.335	0.040	mg/kg	0.400		83.7	57.4-107	2.98	5	
Anthracene	0.333	0.040	mg/kg	0.400		83.3	60.8-105	0.108	3.68	
Benzo[a]anthracene	0.355	0.040	mg/kg	0.400		88.7	56.1-121	0.408	9.01	
Benzo[a]pyrene	0.565	0.040	mg/kg	0.400		141	56.7-115	0.106	4.92	BS1
Benzo[b]fluoranthene	0.311	0.040	mg/kg	0.400		77.8	45.4-128	1.39	7.63	
Benzo[g,h,i]perylene	0.340	0.040	mg/kg	0.400		85.1	56.5-107	1.72	12.5	
Benzo[k]fluoranthene	0.326	0.040	mg/kg	0.400		81.5	49.6-119	0.196	10.6	
Carbazole	0.347	0.040	mg/kg	0.400		86.9	59.7-107	2.03	8.65	
Chrysene	0.345	0.040	mg/kg	0.400		86.4	12.2-190	0.133	21.8	
Dibenz[a,h]anthracene	0.326	0.040	mg/kg	0.400		81.6	59.1-111	1.08	11.6	
Fluoranthene	0.338	0.040	mg/kg	0.400		84.5	60.6-111	1.66	7.54	
Fluorene	0.336	0.040	mg/kg	0.400		84.0	59.3-108	0.987	5.49	
Indeno[1,2,3-cd]pyrene	0.332	0.040	mg/kg	0.400		83.0	53.4-116	1.23	22.3	
Naphthalene	0.331	0.040	mg/kg	0.400		82.8	56.5-106	4.75	4.56	QR-04
Surrogate: Nitrobenzene-d5	1.33		mg/kg	2.00		66.7	39.6-121			
Phenanthrene	0.343	0.040	mg/kg	0.400		85.8	59.9-107	1.69	5.21	
Pyrene	0.345	0.040	mg/kg	0.400		86.1	51.5-122	0.174	10.6	
Surrogate: Terphenyl-d14	1.50		mg/kg	2.00		74.8	33.3-136			

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Jeremy D Allen, Laboratory Director

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Project: COGCC Table 915-1
Project Name / Number: Box Elder J#1
Project Manager: Jake Harter

Reported:
10/25/22 14:02

Notes and Definitions

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

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

BS1 Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.

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

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(970) 247-4220 service@greenanalytical.com or dzulell@greenanalytical.com
Fax: (970) 247-4227 75 Suttle St Durango, CO 81303

Company Name: Cottonwood Consulting LLC

Project Manager: Jacob Harter

Address: PO Box 1653

City: Durango

State: CO Zip: 81302

Phone #: 970-946-3761

Email: jharter@cottonwoodconsulting.com

Additional Report To:

Project Name: Box Elder J #1

Project Number:

Sample Name (Print): Jacob Harter Emma Miller

FOR LAB USE ONLY

Lab I.D.

2210-059

Sample Name or Location	Collected	Date	Time	Matrix (check one)					# of containers					ANALYSIS REQUEST				
				GROUNDWATER	SURFACEWATER	WASTEWATER	PRODUCEDWATER	SOIL	OTHER :	No preservation (general)	HNO ³	HCl	H ₂ SO ₄	Other:	Other:	COGCC Table 915		
01 SSO1		10/5/22	0855					X								X		
02 SSO2			0900					X								X		
03 SSO3			0905					X								X		
04 SSO4			0910					X								X		
05 SSO5			0915					X								X		
06 SSO6			0920					X								X		
07 SSO7			0925					X								X		
08 SSO8			0930					X								X		

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Relinquished By:

Date: 10/6/22

Received By:

ADDITIONAL REMARKS:

Report to State? (Circle)

Cottonwood EOD

Yes

No

Relinquished By:

Date: 0940

Received By:

Relinquished By:

Date:

Received By:

Delivered By: (Circle One)

Temperature at receipt:

CHECKED BY:

Sampler: UPS - FedEx - Kangaroo - Other:

41°C

VSW

Laser #2 on ice

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