



FIGURES

Figure 1: Topographic Site Location Map

Figure 2: Aerial Site Location Map

Figure 3: Soil Analytical Map

Figure 4: Polycyclic Aromatic Hydrocarbons Map

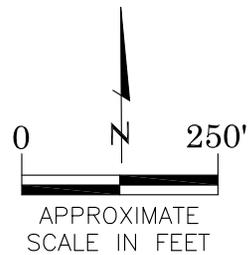
Figure 5: Metals in Soil Map

Figure 6: Background Sample Location Map



LEGEND

-  APPROXIMATE BOOMSLANG FEDERAL TANK BATTERY BOUNDARIES
-  APPROXIMATE RELEASE LOCATION



AERIAL SITE LOCATION MAP
BOOMSLANG FEDERAL 8-60-14B
SURFACE RELEASE
40.659098 / -104.049339
SE $\frac{1}{4}$ SE $\frac{1}{4}$ SEC.14 T8N R60W 6PM
WELD COUNTY, COLORADO
LOCATION ID 455519
SPILL ID 483493

FIGURE NO.

2

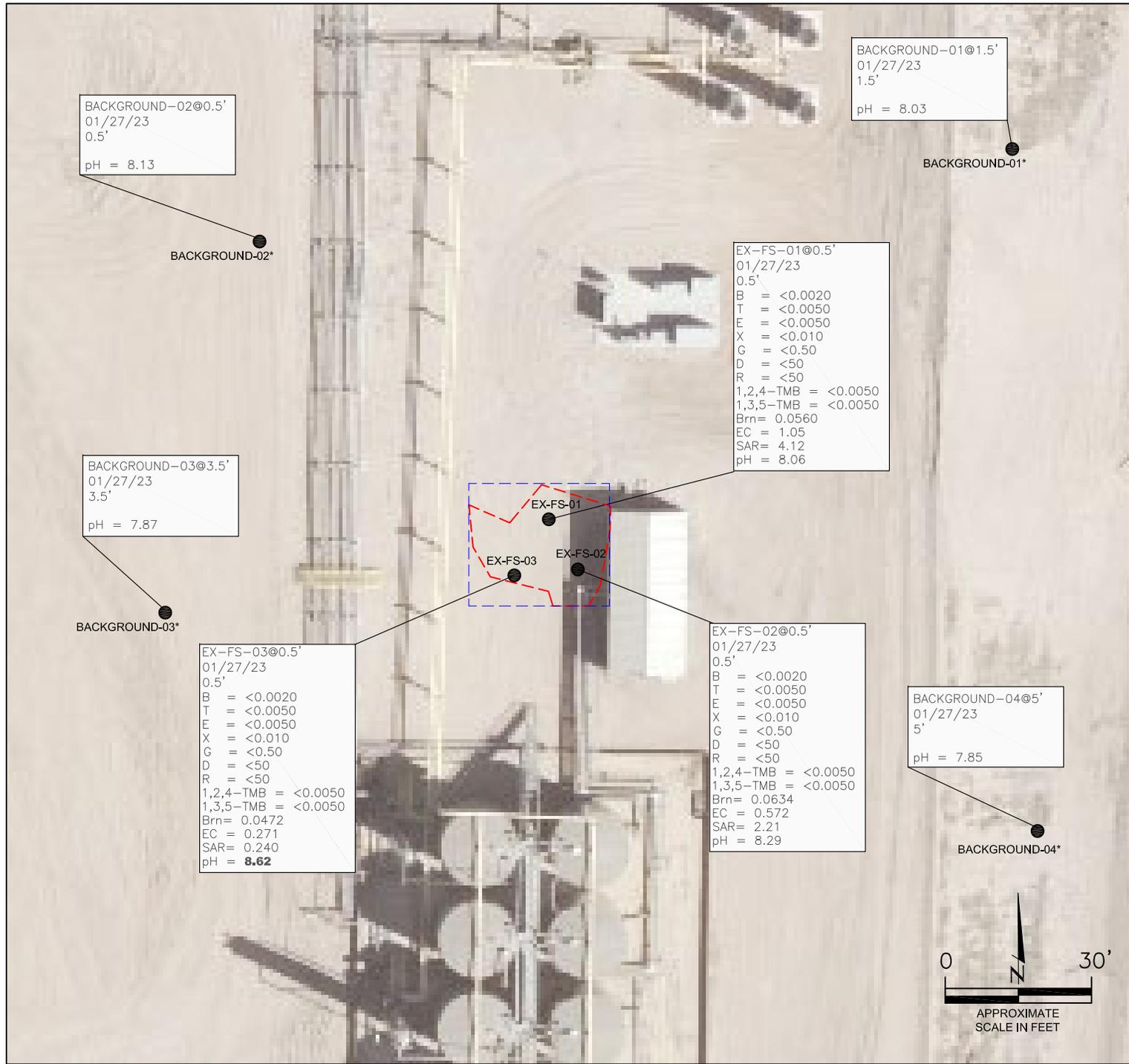
DRAWN BY:

GEC



EAGLE
ENVIRONMENTAL
CONSULTING, LLC

8000 W 44th Ave, Wheat Ridge, CO 80033
Ph: 303-433-0479 • F: 303-325-5449



LEGEND

- INITIAL RELEASE BOUNDARIES
- APPROXIMATE EXCAVATION EXTENTS
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

BACKGROUND SAMPLES COLLECTED OFF-PAD - DISPLAYED FOR ANALYTICAL COMPARISON, ONLY

PARAMETERS

SAMPLE LOCATION
 DATE
 DEPTH (FEET)
 B = BENZENE (mg/kg)
 T = TOLUENE (mg/kg)
 E = ETHYLBENZENE (mg/kg)
 X = TOTAL XYLENES (mg/kg)
 G = TPH-GRO (mg/kg)
 D = TPH-DRO (mg/kg)
 R = TPH-RRO (mg/kg)
 1,2,4-TMB = 1,2,4 TRIMETHYLBENZENE (mg/kg)
 1,3,5-TMB = 1,3,5 TRIMETHYLBENZENE (mg/kg)
 Brn= BORON (mg/L)
 EC = SPECIFIC CONDUCTANCE (mmhos/cm)
 SAR= SODIUM ADSORPTION RATIO
 pH = pH (pH UNITS)

mg/kg = MILLIGRAMS PER KILOGRAM
 mg/L = MILLIGRAMS PER LITER
 mmhos/cm = MILLIMHOS PER CENTIMETER

TPH-GRO = TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE ORGANICS
 TPH-DRO = TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE ORGANICS
 TPH-RRO = TOTAL PETROLEUM HYDROCARBONS - RESIDUAL RANGE ORGANICS

NOTES:
 VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT OR ABOVE LABORATORY DETECTION LIMITS.

VALUES PRESENTED IN **BOLD** EXCEED COGCC TABLE 915-1 REGULATORY LIMITS.

COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION

SOIL ANALYTICAL MAP
 BOOMSLANG FEDERAL 8-60-14B
 SURFACE RELEASE
 40.659098 / -104.049339
 SE¼ SE¼ SEC.14 T8N R60W 6PM
 WELD COUNTY, COLORADO
 LOCATION ID 455519
 SPILL ID 483493

FIGURE NO.
 3
 DRAWN BY:
 AMN



BACKGROUND-02@0.5'
 01/27/23
 0.5'
 pH = 8.13

BACKGROUND-01@1.5'
 01/27/23
 1.5'
 pH = 8.03

EX-FS-01@0.5'
 01/27/23
 0.5'
 B = <0.0020
 T = <0.0050
 E = <0.0050
 X = <0.010
 G = <0.50
 D = <50
 R = <50
 1,2,4-TMB = <0.0050
 1,3,5-TMB = <0.0050
 Brn= 0.0560
 EC = 1.05
 SAR= 4.12
 pH = 8.06

BACKGROUND-03@3.5'
 01/27/23
 3.5'
 pH = 7.87

EX-FS-03@0.5'
 01/27/23
 0.5'
 B = <0.0020
 T = <0.0050
 E = <0.0050
 X = <0.010
 G = <0.50
 D = <50
 R = <50
 1,2,4-TMB = <0.0050
 1,3,5-TMB = <0.0050
 Brn= 0.0472
 EC = 0.271
 SAR= 0.240
 pH = **8.62**

EX-FS-02@0.5'
 01/27/23
 0.5'
 B = <0.0020
 T = <0.0050
 E = <0.0050
 X = <0.010
 G = <0.50
 D = <50
 R = <50
 1,2,4-TMB = <0.0050
 1,3,5-TMB = <0.0050
 Brn= 0.0634
 EC = 0.572
 SAR= 2.21
 pH = 8.29

BACKGROUND-04@5'
 01/27/23
 5'
 pH = 7.85

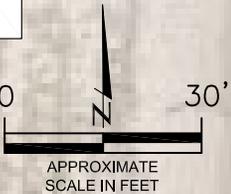




EX-FS-01@0.5'
 01/27/23
 0.5'
 1-Methylnaphthalene = <0.00500
 2-Methylnaphthalene = <0.00500
 Acenaphthene = <0.00500
 Anthracene = <0.00500
 Benzo(a)anthracene = <0.00500
 Benzo(a)pyrene = <0.00500
 Benzo(b)fluoranthene = <0.00500
 Benzo(k)fluoranthene = <0.00500
 Chrysene = <0.00500
 Dibenzo(a,h)anthracene = <0.00500
 Fluoranthene = <0.00500
 Fluorene = <0.00500
 Indeno(1,2,3-CD)pyrene = <0.00500
 Naphthalene = <0.0038
 Pyrene = <0.00500

EX-FS-03@0.5'
 01/27/23
 0.5'
 1-Methylnaphthalene = <0.00500
 2-Methylnaphthalene = <0.00500
 Acenaphthene = <0.00500
 Anthracene = <0.00500
 Benzo(a)anthracene = <0.00500
 Benzo(a)pyrene = <0.00500
 Benzo(b)fluoranthene = <0.00500
 Benzo(k)fluoranthene = <0.00500
 Chrysene = <0.00500
 Dibenzo(a,h)anthracene = <0.00500
 Fluoranthene = <0.00500
 Fluorene = <0.00500
 Indeno(1,2,3-CD)pyrene = <0.00500
 Naphthalene = <0.0038
 Pyrene = <0.00500

EX-FS-02@0.5'
 01/27/23
 0.5'
 1-Methylnaphthalene = <0.00500
 2-Methylnaphthalene = <0.00500
 Acenaphthene = <0.00500
 Anthracene = <0.00500
 Benzo(a)anthracene = <0.00500
 Benzo(a)pyrene = <0.00500
 Benzo(b)fluoranthene = <0.00500
 Benzo(k)fluoranthene = <0.00500
 Chrysene = <0.00500
 Dibenzo(a,h)anthracene = <0.00500
 Fluoranthene = <0.00500
 Fluorene = <0.00500
 Indeno(1,2,3-CD)pyrene = <0.00500
 Naphthalene = <0.0038
 Pyrene = <0.00500



LEGEND

- INITIAL RELEASE BOUNDARIES
- APPROXIMATE EXCAVATION EXTENTS
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

PARAMETERS

SAMPLE LOCATION
 DATE SAMPLE COLLECTED
 APPROXIMATE DEPTH
 POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) (mg/kg)

mg/kg = MILLIGRAMS PER KILOGRAM

NOTES:
 VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT OR ABOVE LABORATORY DETECTION LIMITS.

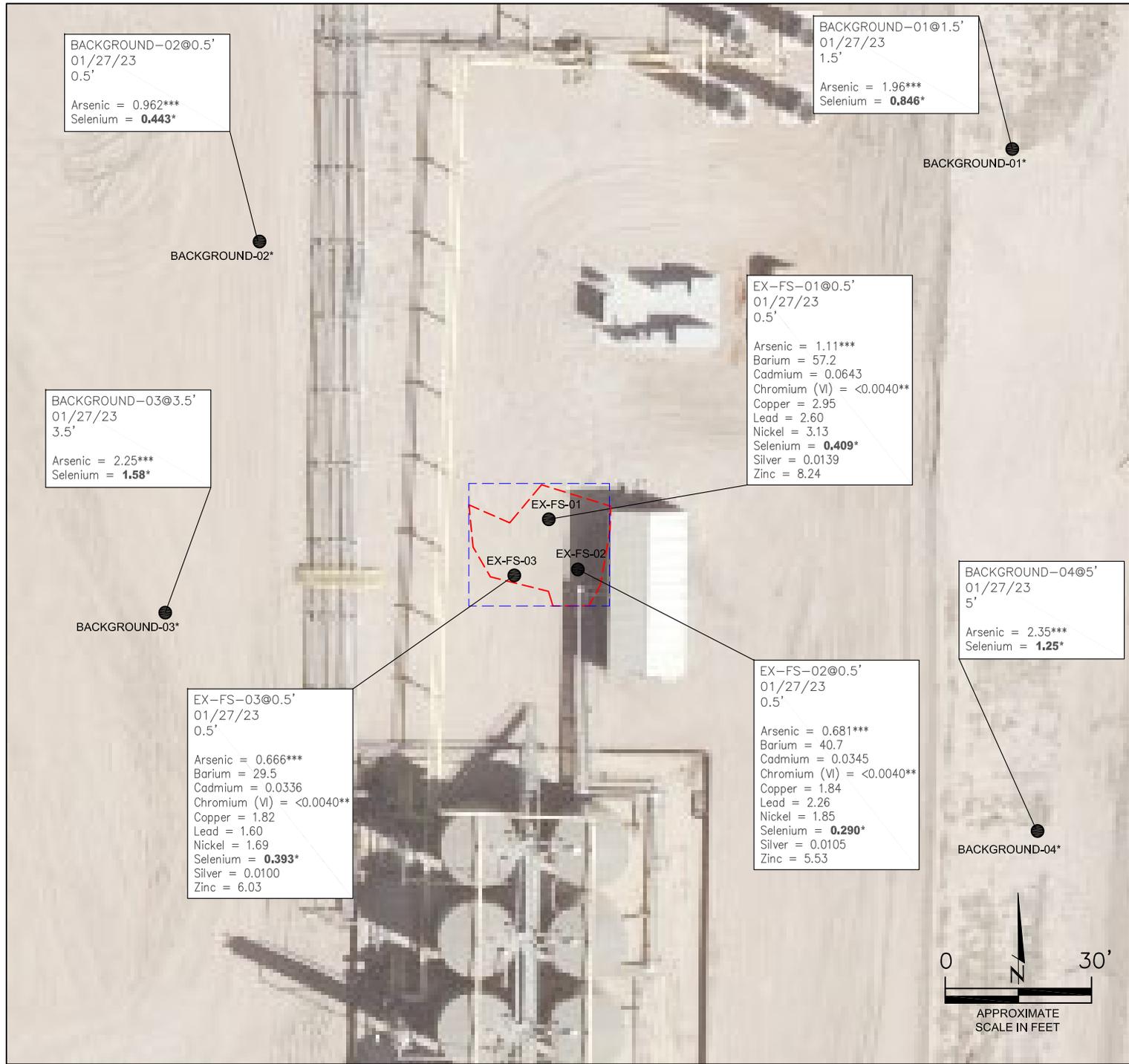
VALUES PRESENTED IN **BOLD** CONTAIN CONCENTRATIONS EXCEEDING COGCC TABLE 915-1 REGULATORY LIMITS.

COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION

POLYCYCLIC AROMATIC HYDROCARBONS MAP
 BOOMSLANG FEDERAL 8-60-14B
 SURFACE RELEASE
 40.659098 / -104.049339
 SE¼ SE¼ SEC.14 T8N R60W 6PM
 WELD COUNTY, COLORADO
 LOCATION ID 455519
 SPILL ID 483493

FIGURE NO.
 4
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BACKGROUND-02@0.5'
01/27/23
0.5'
Arsenic = 0.962***
Selenium = **0.443***

BACKGROUND-01@1.5'
01/27/23
1.5'
Arsenic = 1.96***
Selenium = **0.846***

EX-FS-01@0.5'
01/27/23
0.5'
Arsenic = 1.11***
Barium = 57.2
Cadmium = 0.0643
Chromium (VI) = <0.0040**
Copper = 2.95
Lead = 2.60
Nickel = 3.13
Selenium = **0.409***
Silver = 0.0139
Zinc = 8.24

BACKGROUND-03@3.5'
01/27/23
3.5'
Arsenic = 2.25***
Selenium = **1.58***

BACKGROUND-04@5'
01/27/23
5'
Arsenic = 2.35***
Selenium = **1.25***

EX-FS-03@0.5'
01/27/23
0.5'
Arsenic = 0.666***
Barium = 29.5
Cadmium = 0.0336
Chromium (VI) = <0.0040**
Copper = 1.82
Lead = 1.60
Nickel = 1.69
Selenium = **0.393***
Silver = 0.0100
Zinc = 6.03

EX-FS-02@0.5'
01/27/23
0.5'
Arsenic = 0.681***
Barium = 40.7
Cadmium = 0.0345
Chromium (VI) = <0.0040**
Copper = 1.84
Lead = 2.26
Nickel = 1.85
Selenium = **0.290***
Silver = 0.0105
Zinc = 5.53

LEGEND

- INITIAL RELEASE BOUNDARIES
- APPROXIMATE EXCAVATION EXTENTS
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

BACKGROUND SAMPLES COLLECTED OFF-PAD - DISPLAYED FOR ANALYTICAL COMPARISON, ONLY

PARAMETERS

SAMPLE LOCATION	DATE SAMPLE COLLECTED	APPROXIMATE DEPTH
Arsenic = (mg/kg)		
Barium = (mg/kg)		
Cadmium = (mg/kg)		
Chromium (VI) = (mg/kg)		
Copper = (mg/kg)		
Lead = (mg/kg)		
Nickel = (mg/kg)		
Selenium = (mg/kg)		
Silver = (mg/kg)		
Zinc = (mg/kg)		

mg/kg = MILLIGRAMS PER KILOGRAM

NOTES:

VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT/OR ABOVE LABORATORY REPORTING LIMITS AND/OR MINIMUM DETECTION LIMITS.

VALUES PRESENTED IN **BOLD** EXCEED COGCC TABLE 915-1 REGULATORY LIMITS.

VALUES PRESENTED WITH ASTERISK (*) EXCEED COGCC TABLE 915-1 PROTECTION OF GROUNDWATER SOIL SCREENING LEVELS.

**ACHIEVABLE PRACTICAL QUANTITATIVE LIMITS FOR HEXAVALENT CHROMIUM (Cr VI) IN SOILS IS IN THE RANGE OF 0.1 TO 1 mg/kg.

***ARSENIC LOCAL CLEAN-UP LEVEL (2.35 mg/kg) IS 1.25*BACKGROUND AVERAGE (1.88 mg/kg).

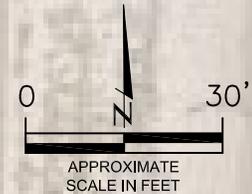
COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION

METALS IN SOIL MAP
BOOMSLANG FEDERAL 8-60-14B
SURFACE RELEASE
40.659098 / -104.049339
SE¼ SEC.14 T8N R60W 6PM
WELD COUNTY, COLORADO
LOCATION ID 455519
SPILL ID 483493

FIGURE NO.
5

DRAWN BY:
AMN

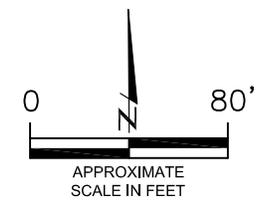
EAGLE ENVIRONMENTAL CONSULTING, LLC
8000 W 44th Ave, Wheat Ridge, CO 80033
Ph: 303-433-0479 • F: 303-325-5449





LEGEND

- - - - INITIAL RELEASE BOUNDARIES
- - - - APPROXIMATE EXCAVATION EXTENTS
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS



BACKGROUND SAMPLE LOCATION MAP
 BOOMSLANG FEDERAL 8-60-14B
 SURFACE RELEASE
 40.659098 / -104.049339
 SE¼ SE¼ SEC.14 T8N R60W 6PM
 WELD COUNTY, COLORADO
 LOCATION ID 455519
 SPILL ID 483493

FIGURE NO.
 6
 DRAWN BY:
 AMN

EAGLE
 ENVIRONMENTAL
 CONSULTING, LLC
 8000 W 44th Ave, Wheat Ridge, CO 80033
 Ph: 303-433-0479 • F: 303-325-5449



TABLES

Table 1: Photoionization Detector Reading Summary

Table 2: Soil Analytical Results Summary

TABLE 1
PHOTOIONIZATION DETECTOR READING SUMMARY
BOOMSLANG FEDERAL 8-60-14B
SURFACE RELEASE
40.659098 / -104.049339
SE1/4 SE1/4 SEC.14 T8N R60W 6PM
WELD COUNTY, COLORADO
LOCATION ID 455519
SPILL ID 483493

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Lab Submission (Y/N)
EX-FS-01 @ 0.5' (40.659111 / -104.049334)	01/27/23	0.5	10.8	Y
EX-FS-02 @ 0.5' (40.659082 / -104.049315)	01/27/23	0.5	6.6	Y
EX-FS-03 @ 0.5' (40.659079 / -104.049352)	01/27/23	0.5	5.9	Y
Background-01 @ 1.5' (40.659794 / -104.049152)	01/27/23	1.5	7.0	Y
Background-02 @ 0.5' (40.659544 / -104.050234)	01/27/23	0.5	0.5	Y
Background-03 @ 3.5' (40.659142 / -104.050317)	01/27/23	3.5	1.7	Y
Background-04 @ 5' (40.658483 / -104.049188)	01/27/23	5	7.7	Y
(Y/N) = Yes or No ppm-v = parts per million by volume PID = Photoionization Detector				



TABLE 2
SOIL ANALYTICAL RESULTS SUMMARY
BOOMSLANG FEDERAL 8-60-14B
SURFACE RELEASE
40.659098 / -104.049339
SE1/4 SE1/4 SEC. 14 T8N R60W 6PM
WELD COUNTY, COLORADO
LOCATION ID 455519
SPILL ID 483493

Sample Location (Latitude / Longitude)		EX-FS-01 @ 0.5'	EX-FS-02 @ 0.5'	EX-FS-03 @ 0.5'	Background-01 @ 1.5'	Background-02 @ 0.5'	Background-03 @ 3.5'	Background-04 @ 5'
		(40.659111 / -104.049334)	(40.659082 / -104.049315)	(40.659079 / -104.049352)	(40.659794 / -104.049152)	(40.659544 / -104.050234)	(40.659142 / -104.050317)	(40.658483 / -104.049188)
Sample Date		1/27/2023	1/27/2023	1/27/2023	1/27/2023	1/27/2023	1/27/2023	1/27/2023
Sample Depth		0.5	0.5	0.5	0.5	0.5	0.5	0.5
PID Reading (ppm-v)		10.8	6.6	5.9	7	0.5	1.7	7.7
Regulatory Limits		COGCC Table 915-1 RSSLs	COGCC Table 915-1 GSSLs	Local Clean-Up Level				
Chemical of Concern								
VOCs								
Benzene	mg/kg	1.2	0.0026	--	<0.0020	<0.0020	<0.0020	NA
Toluene	mg/kg	490	0.69	--	<0.0050	<0.0050	<0.0050	NA
Ethylbenzene	mg/kg	5.8	0.78	--	<0.0050	<0.0050	<0.0050	NA
Total Xylenes	mg/kg	58	9.9	--	<0.010	<0.010	<0.010	NA
1,2,4-Trimethylbenzene	mg/kg	30	0.0081	--	<0.0050	<0.0050	<0.0050	NA
1,3,5-Trimethylbenzene	mg/kg	27	0.0087	--	<0.0050	<0.0050	<0.0050	NA
Total Petroleum Hydrocarbons								
TPH-GRO	mg/kg	500	--	--	<50	<50	<50	NA
TPH-DRO	mg/kg	500	--	--	<50	<50	<50	NA
TPH-RRO	mg/kg	500	--	--	<50	<50	<50	NA
Polycyclic Aromatics Hydrocarbons								
1-Methyl-naphthalene	mg/kg	18	0.006	--	<0.00500	<0.00500	<0.00500	NA
2-Methyl-naphthalene	mg/kg	24	0.019	--	<0.00500	<0.00500	<0.00500	NA
Acenaphthene	mg/kg	380	0.55	--	<0.00500	<0.00500	<0.00500	NA
Anthracene	mg/kg	1800	5.8	--	<0.00500	<0.00500	<0.00500	NA
Benzo(a)anthracene	mg/kg	1.1	0.011	--	<0.00500	<0.00500	<0.00500	NA
Benzo(a)pyrene	mg/kg	0.11	0.24	--	<0.00500	<0.00500	<0.00500	NA
Benzo(b)fluoranthene	mg/kg	1.1	0.3	--	<0.00500	<0.00500	<0.00500	NA
Benzo(k)fluoranthene	mg/kg	11	2.9	--	<0.00500	<0.00500	<0.00500	NA
Chrysene	mg/kg	110	9	--	<0.00500	<0.00500	<0.00500	NA
Dibenzo(a,h)anthracene	mg/kg	0.11	0.096	--	<0.00500	<0.00500	<0.00500	NA
Fluoranthene	mg/kg	240	8.9	--	<0.00500	<0.00500	<0.00500	NA
Fluorene	mg/kg	240	0.54	--	<0.00500	<0.00500	<0.00500	NA
Indeno(1,2,3-cd)-pyrene	mg/kg	1.1	0.98	--	<0.00500	<0.00500	<0.00500	NA
Naphthalene	mg/kg	2	0.0038	--	<0.0038	<0.0038	<0.0038	NA
Pyrene	mg/kg	180	1.3	--	<0.00500	<0.00500	<0.00500	NA
Soil Suitability (Inorganics)								
Boron	mg/L	2	--	--	0.0580	0.0634	0.0472	NA
pH	standard unit	6-8.3	--	--	8.06	8.29	8.62	8.03
Sodium Adsorption Ratio (SAR)	--	<6	--	--	4.12	2.21	0.240	7.00
Specific Conductance (EC)	mmhos/cm	<4	--	--	1.05	0.572	0.271	1.16
Metals								
Arsenic	mg/kg	0.68***	0.29***	2.35***	1.11***	0.681***	0.666***	1.96***
Barium	mg/kg	15000	82	--	57.2	40.7	29.5	210*
Cadmium	mg/kg	71	0.0643	--	0.0643	0.0345	0.0336	NA
Copper	mg/kg	3100	46	--	2.95	1.84	1.82	NA
Lead	mg/kg	400	14	--	2.60	2.26	1.60	8.59
Nickel	mg/kg	1500	26	--	3.13	1.85	1.69	NA
Selenium	mg/kg	390	0.26	--	0.409*	0.290*	0.393*	0.846*
Silver	mg/kg	390	0.8	--	0.0139	0.0105	0.0100	NA
Zinc	mg/kg	23000	370	--	8.24	5.53	6.03	NA
Hexavalent Chromium	mg/kg	0.3**	0.00067**	0.1 to 1.0**	<0.30**	<0.30**	<0.30**	NA
COGCC = Colorado Oil and Gas Conservation Commission mg/kg = milligrams per kilogram mmhos/cm = millimhos per centimeter PID = Photolization Detector ppm-v = parts per million by volume mg/L = milligrams per liter SAR = Sodium Adsorption Ratio Notes: Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit and/or minimum detection limit Values presented in BOLD exceed COGCC Table 915-1 Regulatory Limits. Values presented with asterisk (*) exceed COGCC Table 915-1 GSSLs **Achievable practical quantitative limits for Hexavalent Chromium in soils is in the range of 0.1 to 1 mg/kg. ***Local clean-up level (2.35 mg/kg) is 1.25*Background Average (1.88 mg/kg).								



ATTACHMENT A

Photo Log

Boomslang Federal 8-60-14B

Location ID 455519

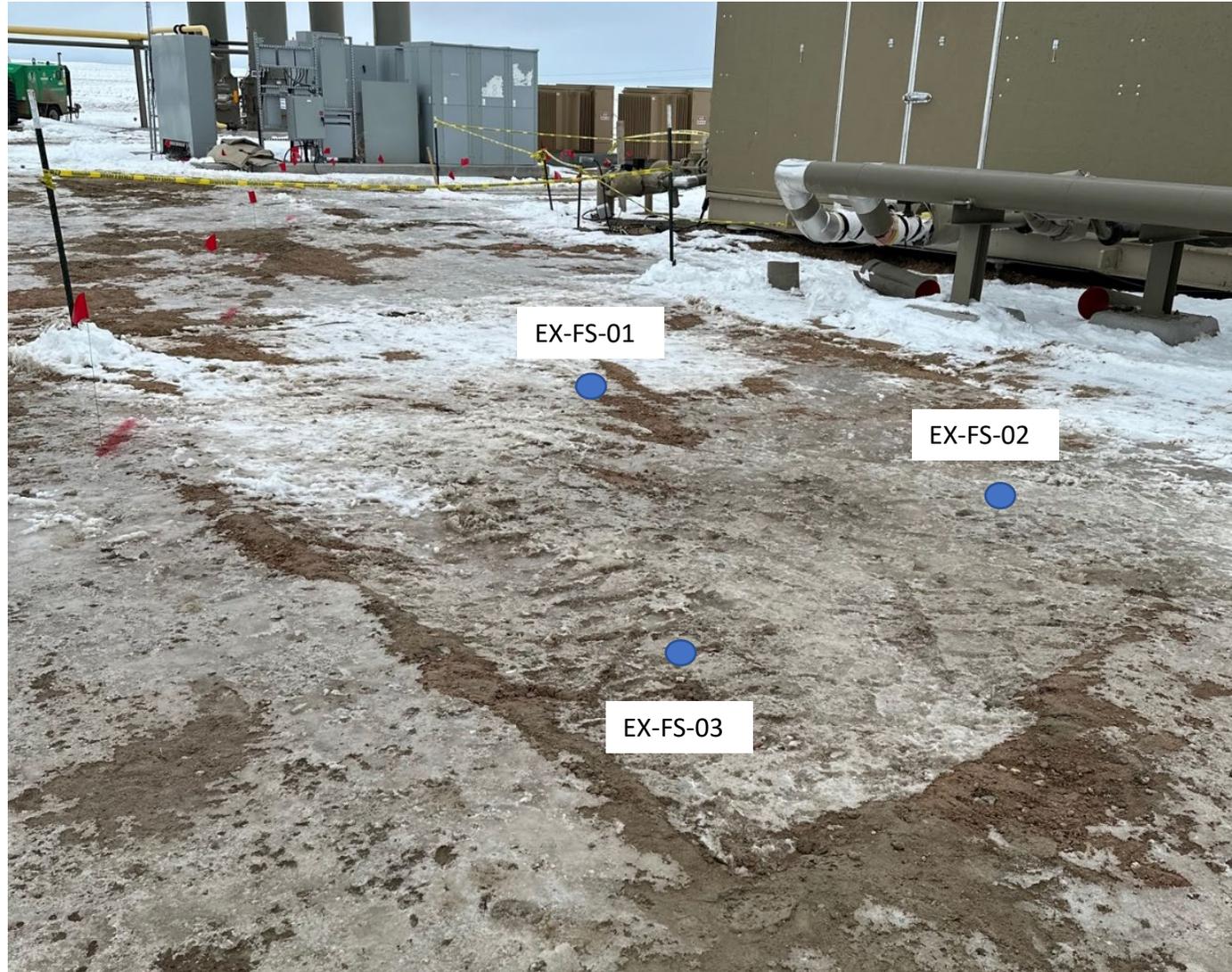
Spill ID 483493

Surface Release

January 2023



Initial Cleanup/Confirmation Sampling – 01/27/23



Looking northeast

Confirmation soil samples collected following soil removal

No residual petroleum hydrocarbon staining or odor observed

PID readings:

EX-FS-01 @ 0.5' – 10.8 ppm-v

EX-FS-02 @ 0.5' – 6.6 ppm-v

EX-FS-03 @ 0.5' – 5.9 ppm-v



ATTACHMENT B

Laboratory Analytical Reports

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

February 06, 2023

Martin Eckert III

Civitas Resources

650 Southgate Drive

Windsor, CO 80550

RE: Boomslang Federal 8-60-14B

Work Order # 2301493

Enclosed are the results of analyses for samples received by Summit Scientific on 01/27/23 15:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Scott Sheely For Paul Shrewsbury

President



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EX-FS-01@0.5'	2301493-01	Soil	01/27/23 12:50	01/27/23 15:45
EX-FS-02@0.5'	2301493-02	Soil	01/27/23 12:53	01/27/23 15:45
EX-FS-03@0.5'	2301493-03	Soil	01/27/23 12:55	01/27/23 15:45

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SUMMIT SCIENTIFIC

4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

2301493

Lab ID	Page 1 of 1
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Client: <u>Eagle Environmental Consulting/Civitas</u>		Send Data To: Project Manager: <u>Martin Eckert III</u>		Send Invoice To: Company: <u>Civitas / Bill to Corp</u>	
Address: <u>8000 W 4th Ave</u>		E-Mail: <u>mce3@eagle-enviro.com</u>		Project Name/Location:	
City/State/Zip: <u>Wheat Ridge CO 80033</u>		Project Name: <u>Boomslang Federal S-60-14B</u>		AFE#:	
Phone: <u>303-433-0479</u>		Project Number: _____		PO/Billing Codes:	
Sampler Name: <u>km</u>		Project Number: _____		Contact:	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Analysis Requested						Special Instructions
					HCl	HNO3	None	Other	Water	Soil		Other	G.BTEX, NAPHA, TMS) - 5260D	DRO/PARO - 8010	EC, SAR, pH - 9010	PERON - 8010/SARACOL	Table 915 method - 6020B	
1	EX-F5-01 @ 0.5'	1/27/23	1250	2			X					X	X	X	X	X		MDAs method
2	EX-F5-02 @ 0.5'	↓	1253	↓			↓					↓	↓	↓	↓	↓		
3	EX-F5-03 @ 0.5'	↓	1255	↓			↓					↓	↓	↓	↓	↓		EC, SAR, pH - soil test for prep
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		

Relinquished by: <u>Keel</u>	Date/Time: <u>1/27/23 15:45</u>	Received by: <u>JALCL</u>	Date/Time: <u>1/27/23 15:45</u>	TAT Business Days	Field DO	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input checked="" type="checkbox"/>	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day <input type="checkbox"/>	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days <input type="checkbox"/>	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days <input type="checkbox"/>	Field Temp.	
Temperature Upon Receipt: <u>5.8</u>	Corrected Temperature: <u>5.8</u>	IR gun #: <u>2</u>	HNO3 lot #:	Standard <input type="checkbox"/>	Field Turb.	

S₂

Sample Receipt Checklist

S2 Work Order# 2301493

Client: Eagle Environmental Client Project ID: Boonlang Federal 8-60-1413

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #: _____

Matrix (Check all that apply) Air Soil/Solid Water Other

Temp (°C) Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
If custody seals are present, are they intact? ⁽¹⁾	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	same day
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Jmo
Custodian Printed Name

1/27/23
Date/Time



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-01@0.5'
2301493-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BGA0697	01/27/23	01/28/23	EPA 8260B	
Toluene	ND	0.0050	0.00025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	0.00021	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	0.00044	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	0.00024	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	0.00024	"	"	"	"	"	"	
Naphthalene	ND	0.0038	0.00036	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		108 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		97.6 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		113 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BGA0698	01/27/23	01/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		93.2 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-01@0.5'
2301493-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BGA0711	01/30/23	01/31/23	EPA 8270D SIM	
Anthracene	ND	0.00500	0.000308	"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500	0.000363	"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500	0.000234	"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500	0.000433	"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500	0.000423	"	"	"	"	"	"	"
Chrysene	ND	0.00500	0.000237	"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500	0.00167	"	"	"	"	"	"	"
Fluoranthene	ND	0.00500	0.000373	"	"	"	"	"	"	"
Fluorene	ND	0.00500	0.000477	"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	0.00118	"	"	"	"	"	"	"
Pyrene	ND	0.00500	0.000317	"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500	0.00185	"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500	0.00189	"	"	"	"	"	"	"

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		49.0 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		77.5 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0560	0.0100	0.00690	mg/L	1	BGA0663	01/27/23	01/30/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-01@0.5'
2301493-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.11	0.262	0.220	mg/kg dry	1	BGA0699	01/27/23	01/31/23	EPA 6020B	
Barium	57.2	0.523	0.413	"	"	"	"	"	"	
Cadmium	0.0643	0.262	0.00942	"	"	"	"	"	"	
Copper	2.95	0.523	0.0273	"	"	"	"	"	"	
Lead	2.60	0.262	0.0719	"	"	"	"	"	"	
Nickel	3.13	0.523	0.0798	"	"	"	"	"	"	
Selenium	0.409	0.260	0.175	"	"	"	"	"	"	
Silver	0.0139	0.0262	0.00349	"	"	"	"	"	"	
Zinc	8.24	0.523	0.348	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.0040	mg/kg dry	1	BGA0708	01/29/23	01/30/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	69.8	0.0654		mg/L dry	1	BGA0700	01/28/23	01/30/23	EPA 6020B	
Magnesium	11.6	0.0654		"	"	"	"	"	"	
Sodium	141	0.0654		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.12	0.00100		units	1	BGA0769	01/31/23	01/31/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-01@0.5'
2301493-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	76.4			%	1	BGA0728	01/30/23	01/30/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	1.05	0.0100	0.00100	mmhos/cm	1	BGA0706	01/29/23	01/29/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/27/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.06			pH Units	1	BGA0705	01/29/23	01/29/23	EPA 9045D	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-02@0.5'
2301493-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/27/23 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BGA0697	01/27/23	01/28/23	EPA 8260B	
Toluene	ND	0.0050	0.00025	"	"	"	"	"	"	"
Ethylbenzene	ND	0.0050	0.00021	"	"	"	"	"	"	"
Xylenes (total)	ND	0.010	0.00044	"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	0.0050	0.00024	"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	0.0050	0.00024	"	"	"	"	"	"	"
Naphthalene	ND	0.0038	0.00036	"	"	"	"	"	"	"
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	"

Date Sampled: **01/27/23 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		107 %		50-150		"	"	"	"	"
Surrogate: Toluene-d8		98.4 %		50-150		"	"	"	"	"
Surrogate: 4-Bromofluorobenzene		109 %		50-150		"	"	"	"	"

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/27/23 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BGA0698	01/27/23	01/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **01/27/23 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		96.1 %		30-150		"	"	"	"	"

PAH by EPA Method 8270D SIM

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-02@0.5'
2301493-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/27/23 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BGA0711	01/30/23	01/31/23	EPA 8270D SIM	
Anthracene	ND	0.00500	0.000308	"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500	0.000363	"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500	0.000234	"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500	0.000433	"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500	0.000423	"	"	"	"	"	"	"
Chrysene	ND	0.00500	0.000237	"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500	0.00167	"	"	"	"	"	"	"
Fluoranthene	ND	0.00500	0.000373	"	"	"	"	"	"	"
Fluorene	ND	0.00500	0.000477	"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	0.00118	"	"	"	"	"	"	"
Pyrene	ND	0.00500	0.000317	"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500	0.00185	"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500	0.00189	"	"	"	"	"	"	"

Date Sampled: **01/27/23 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		49.8 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		70.5 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/27/23 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0634	0.0100	0.00690	mg/L	1	BGA0663	01/27/23	01/30/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/27/23 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-02@0.5'
2301493-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.681	0.226	0.191	mg/kg dry	1	BGA0699	01/27/23	01/31/23	EPA 6020B	
Barium	40.7	0.452	0.357	"	"	"	"	"	"	
Cadmium	0.0345	0.226	0.00814	"	"	"	"	"	"	
Copper	1.84	0.452	0.0236	"	"	"	"	"	"	
Lead	2.26	0.226	0.0621	"	"	"	"	"	"	
Nickel	1.85	0.452	0.0690	"	"	"	"	"	"	
Selenium	0.290	0.260	0.175	"	"	"	"	"	"	
Silver	0.0105	0.0226	0.00302	"	"	"	"	"	"	
Zinc	5.53	0.452	0.301	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 01/27/23 12:53

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.0040	mg/kg dry	1	BGA0708	01/29/23	01/30/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: 01/27/23 12:53

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	29.0	0.0565		mg/L dry	1	BGA0700	01/28/23	01/30/23	EPA 6020B	
Magnesium	4.52	0.0565		"	"	"	"	"	"	
Sodium	48.5	0.0565		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 01/27/23 12:53

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.21	0.00100		units	1	BGA0769	01/31/23	01/31/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-02@0.5'
2301493-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/27/23 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	88.4			%	1	BGA0728	01/30/23	01/30/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/27/23 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.572	0.0100	0.00100	mmhos/cm	1	BGA0706	01/29/23	01/29/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/27/23 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.29			pH Units	1	BGA0705	01/29/23	01/29/23	EPA 9045D	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-03@0.5'
2301493-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/27/23 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BGA0697	01/27/23	01/28/23	EPA 8260B	
Toluene	ND	0.0050	0.00025	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	0.00021	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	0.00044	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	0.00024	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	0.00024	"	"	"	"	"	"	
Naphthalene	ND	0.0038	0.00036	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **01/27/23 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		100 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		94.7 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/27/23 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BGA0698	01/27/23	01/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **01/27/23 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		94.0 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-03@0.5'
2301493-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/27/23 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BGA0711	01/30/23	01/31/23	EPA 8270D SIM	
Anthracene	ND	0.00500	0.000308	"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500	0.000363	"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500	0.000234	"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500	0.000433	"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500	0.000423	"	"	"	"	"	"	"
Chrysene	ND	0.00500	0.000237	"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500	0.00167	"	"	"	"	"	"	"
Fluoranthene	ND	0.00500	0.000373	"	"	"	"	"	"	"
Fluorene	ND	0.00500	0.000477	"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	0.00118	"	"	"	"	"	"	"
Pyrene	ND	0.00500	0.000317	"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500	0.00185	"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500	0.00189	"	"	"	"	"	"	"

Date Sampled: **01/27/23 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		47.0 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		86.4 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/27/23 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0472	0.0100	0.00690	mg/L	1	BGA0663	01/27/23	01/30/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/27/23 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-03@0.5'
2301493-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.666	0.229	0.193	mg/kg dry	1	BGA0699	01/27/23	01/31/23	EPA 6020B	
Barium	29.5	0.459	0.362	"	"	"	"	"	"	
Cadmium	0.0336	0.229	0.00826	"	"	"	"	"	"	
Copper	1.82	0.459	0.0240	"	"	"	"	"	"	
Lead	1.60	0.229	0.0630	"	"	"	"	"	"	
Nickel	1.69	0.459	0.0699	"	"	"	"	"	"	
Selenium	0.393	0.260	0.175	"	"	"	"	"	"	
Silver	0.0100	0.0229	0.00306	"	"	"	"	"	"	
Zinc	6.03	0.459	0.305	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 01/27/23 12:55

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.0040	mg/kg dry	1	BGA0708	01/29/23	01/30/23	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: 01/27/23 12:55

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	763	0.0573		mg/L dry	1	BGA0700	01/28/23	01/30/23	EPA 6020B	
Magnesium	35.4	0.0573		"	"	"	"	"	"	
Sodium	25.0	0.0573		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 01/27/23 12:55

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.240	0.00100		units	1	BGA0769	01/31/23	01/31/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

EX-FS-03@0.5'
2301493-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/27/23 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	87.2			%	1	BGA0728	01/30/23	01/30/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/27/23 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.271	0.0100	0.00100	mmhos/cm	1	BGA0706	01/29/23	01/29/23	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/27/23 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.62			pH Units	1	BGA0705	01/29/23	01/29/23	EPA 9045D	

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BGA0697 - EPA 5030 Soil MS

Blank (BGA0697-BLK1)

Prepared: 01/27/23 Analyzed: 01/28/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0588		"	0.0400		147	50-150			
Surrogate: Toluene-d8	0.0384		"	0.0400		95.9	50-150			
Surrogate: 4-Bromofluorobenzene	0.0343		"	0.0400		85.6	50-150			

LCS (BGA0697-BS1)

Prepared: 01/27/23 Analyzed: 01/28/23

Benzene	0.0871	0.0020	mg/kg	0.100		87.1	70-130			
Toluene	0.102	0.0050	"	0.100		102	70-130			
Ethylbenzene	0.101	0.0050	"	0.100		101	70-130			
m,p-Xylene	0.237	0.010	"	0.200		119	70-130			
o-Xylene	0.111	0.0050	"	0.100		111	70-130			
1,2,4-Trimethylbenzene	0.0953	0.0050	"	0.100		95.3	70-130			
1,3,5-Trimethylbenzene	0.0992	0.0050	"	0.100		99.2	70-130			
Naphthalene	0.0942	0.0038	"	0.100		94.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0526		"	0.0400		131	50-150			
Surrogate: Toluene-d8	0.0584		"	0.0400		146	50-150			
Surrogate: 4-Bromofluorobenzene	0.0479		"	0.0400		120	50-150			

Matrix Spike (BGA0697-MS1)

Source: 2301492-01

Prepared: 01/27/23 Analyzed: 01/28/23

Benzene	0.0827	0.0020	mg/kg	0.100	ND	82.7	70-130			
Toluene	0.0898	0.0050	"	0.100	ND	89.8	70-130			
Ethylbenzene	0.0976	0.0050	"	0.100	ND	97.6	70-130			
m,p-Xylene	0.202	0.010	"	0.200	ND	101	70-130			
o-Xylene	0.0961	0.0050	"	0.100	ND	96.1	70-130			
1,2,4-Trimethylbenzene	0.0941	0.0050	"	0.100	ND	94.1	70-130			
1,3,5-Trimethylbenzene	0.0975	0.0050	"	0.100	ND	97.5	70-130			
Naphthalene	0.0980	0.0038	"	0.100	ND	98.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0347		"	0.0400		86.7	50-150			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0411		"	0.0400		103	50-150			

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BGA0697 - EPA 5030 Soil MS

Matrix Spike Dup (BGA0697-MSD1)	Source: 2301492-01			Prepared: 01/27/23 Analyzed: 01/28/23						
Benzene	0.0823	0.0020	mg/kg	0.100	ND	82.3	70-130	0.509	30	
Toluene	0.0873	0.0050	"	0.100	ND	87.3	70-130	2.78	30	
Ethylbenzene	0.0967	0.0050	"	0.100	ND	96.7	70-130	0.926	30	
m,p-Xylene	0.201	0.010	"	0.200	ND	100	70-130	0.566	30	
o-Xylene	0.0961	0.0050	"	0.100	ND	96.1	70-130	0.0312	30	
1,2,4-Trimethylbenzene	0.0918	0.0050	"	0.100	ND	91.8	70-130	2.42	30	
1,3,5-Trimethylbenzene	0.0953	0.0050	"	0.100	ND	95.3	70-130	2.30	30	
Naphthalene	0.101	0.0038	"	0.100	ND	101	70-130	3.49	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0343</i>		<i>"</i>	<i>0.0400</i>		<i>85.6</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0395</i>		<i>"</i>	<i>0.0400</i>		<i>98.8</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0406</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>50-150</i>			

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BGA0698 - EPA 3550A

Blank (BGA0698-BLK1)

Prepared & Analyzed: 01/27/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	14.0		"	12.5		112	30-150				

LCS (BGA0698-BS1)

Prepared & Analyzed: 01/27/23

C10-C28 (DRO)	491	50	mg/kg	500		98.1	70-130				
Surrogate: <i>o</i> -Terphenyl	4.30		"	12.5		34.4	30-150				

Matrix Spike (BGA0698-MS1)

Source: 2301492-01

Prepared & Analyzed: 01/27/23

C10-C28 (DRO)	523	50	mg/kg	500	ND	105	70-130				
Surrogate: <i>o</i> -Terphenyl	13.0		"	12.5		104	30-150				

Matrix Spike Dup (BGA0698-MSD1)

Source: 2301492-01

Prepared & Analyzed: 01/27/23

C10-C28 (DRO)	499	50	mg/kg	500	ND	99.8	70-130	4.73	20		
Surrogate: <i>o</i> -Terphenyl	12.8		"	12.5		103	30-150				

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BGA0711 - EPA 5030 Soil MS

Blank (BGA0711-BLK1)

Prepared & Analyzed: 01/30/23

Acenaphthene	ND	0.00500	mg/kg								
Anthracene	ND	0.00500	"								
Benzo (a) anthracene	ND	0.00500	"								
Benzo (a) pyrene	ND	0.00500	"								
Benzo (b) fluoranthene	ND	0.00500	"								
Benzo (k) fluoranthene	ND	0.00500	"								
Chrysene	ND	0.00500	"								
Dibenz (a,h) anthracene	ND	0.00500	"								
Fluoranthene	ND	0.00500	"								
Fluorene	ND	0.00500	"								
Indeno (1,2,3-cd) pyrene	ND	0.00500	"								
Pyrene	ND	0.00500	"								
1-Methylnaphthalene	ND	0.00500	"								
2-Methylnaphthalene	ND	0.00500	"								
Surrogate: 2-Methylnaphthalene-d10	0.0331		"	0.0333		99.3		40-150			
Surrogate: Fluoranthene-d10	0.0327		"	0.0333		98.1		40-150			

LCS (BGA0711-BS1)

Prepared & Analyzed: 01/30/23

Acenaphthene	0.0306	0.00500	mg/kg	0.0333		91.7		31-137			
Anthracene	0.0314	0.00500	"	0.0333		94.3		30-120			
Benzo (a) anthracene	0.0331	0.00500	"	0.0333		99.4		30-120			
Benzo (a) pyrene	0.0305	0.00500	"	0.0333		91.5		30-120			
Benzo (b) fluoranthene	0.0297	0.00500	"	0.0333		89.1		30-120			
Benzo (k) fluoranthene	0.0299	0.00500	"	0.0333		89.6		30-120			
Chrysene	0.0307	0.00500	"	0.0333		92.2		30-120			
Dibenz (a,h) anthracene	0.0303	0.00500	"	0.0333		90.8		30-120			
Fluoranthene	0.0312	0.00500	"	0.0333		93.6		30-120			
Fluorene	0.0306	0.00500	"	0.0333		91.8		30-120			
Indeno (1,2,3-cd) pyrene	0.0331	0.00500	"	0.0333		99.4		30-120			
Pyrene	0.0311	0.00500	"	0.0333		93.3		35-142			
1-Methylnaphthalene	0.0275	0.00500	"	0.0333		82.5		35-142			
2-Methylnaphthalene	0.0308	0.00500	"	0.0333		92.4		35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0271		"	0.0333		81.2		40-150			
Surrogate: Fluoranthene-d10	0.0320		"	0.0333		96.1		40-150			

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

PAH by EPA Method 8270D SIM - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BGA0711 - EPA 5030 Soil MS

Matrix Spike (BGA0711-MS1)	Source: 2301484-01			Prepared & Analyzed: 01/30/23						
Acenaphthene	0.0218	0.00500	mg/kg	0.0333	ND	65.5	31-137			
Anthracene	0.0213	0.00500	"	0.0333	ND	63.8	30-120			
Benzo (a) anthracene	0.0246	0.00500	"	0.0333	ND	73.9	30-120			
Benzo (a) pyrene	0.0206	0.00500	"	0.0333	ND	61.9	30-120			
Benzo (b) fluoranthene	0.0185	0.00500	"	0.0333	ND	55.5	30-120			
Benzo (k) fluoranthene	0.0178	0.00500	"	0.0333	ND	53.5	30-120			
Chrysene	0.0203	0.00500	"	0.0333	ND	60.8	30-120			
Dibenz (a,h) anthracene	0.0347	0.00500	"	0.0333	ND	104	30-120			
Fluoranthene	0.0217	0.00500	"	0.0333	ND	65.0	30-120			
Fluorene	0.0220	0.00500	"	0.0333	ND	66.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0330	0.00500	"	0.0333	ND	99.0	30-120			
Pyrene	0.0203	0.00500	"	0.0333	ND	60.9	35-142			
1-Methylnaphthalene	0.0198	0.00500	"	0.0333	ND	59.4	15-130			
2-Methylnaphthalene	0.0224	0.00500	"	0.0333	ND	67.1	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0196</i>		<i>"</i>	<i>0.0333</i>		<i>58.7</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0223</i>		<i>"</i>	<i>0.0333</i>		<i>67.0</i>	<i>40-150</i>			

Matrix Spike Dup (BGA0711-MSD1)	Source: 2301484-01			Prepared & Analyzed: 01/30/23						
Acenaphthene	0.0169	0.00500	mg/kg	0.0333	ND	50.6	31-137	25.6	30	
Anthracene	0.0154	0.00500	"	0.0333	ND	46.2	30-120	32.0	30	QR-02
Benzo (a) anthracene	0.0174	0.00500	"	0.0333	ND	52.2	30-120	34.5	30	QR-02
Benzo (a) pyrene	0.0153	0.00500	"	0.0333	ND	45.9	30-120	29.7	30	
Benzo (b) fluoranthene	0.0135	0.00500	"	0.0333	ND	40.4	30-120	31.5	30	QR-02
Benzo (k) fluoranthene	0.0140	0.00500	"	0.0333	ND	41.9	30-120	24.2	30	
Chrysene	0.0149	0.00500	"	0.0333	ND	44.7	30-120	30.5	30	QR-02
Dibenz (a,h) anthracene	0.0212	0.00500	"	0.0333	ND	63.6	30-120	48.4	30	QR-02
Fluoranthene	0.0158	0.00500	"	0.0333	ND	47.5	30-120	31.2	30	QR-02
Fluorene	0.0165	0.00500	"	0.0333	ND	49.5	30-120	28.7	30	
Indeno (1,2,3-cd) pyrene	0.0190	0.00500	"	0.0333	ND	57.1	30-120	53.7	30	QR-02
Pyrene	0.0153	0.00500	"	0.0333	ND	45.9	35-142	28.2	30	
1-Methylnaphthalene	0.0228	0.00500	"	0.0333	ND	68.3	15-130	14.0	50	
2-Methylnaphthalene	0.0209	0.00500	"	0.0333	ND	62.8	15-130	6.71	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0143</i>		<i>"</i>	<i>0.0333</i>		<i>43.0</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0163</i>		<i>"</i>	<i>0.0333</i>		<i>49.0</i>	<i>40-150</i>			

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BGA0663 - EPA 3050B

Blank (BGA0663-BLK1)

Prepared: 01/27/23 Analyzed: 01/30/23

Boron ND 0.0100 mg/L

LCS (BGA0663-BS1)

Prepared: 01/27/23 Analyzed: 01/30/23

Boron 5.14 0.0100 mg/L 5.00 103 80-120

Duplicate (BGA0663-DUP1)

Source: 2301458-07

Prepared: 01/27/23 Analyzed: 01/30/23

Boron 0.478 0.0100 mg/L 0.535 11.3 20

Matrix Spike (BGA0663-MS1)

Source: 2301458-07

Prepared: 01/27/23 Analyzed: 01/30/23

Boron 5.06 0.0100 mg/L 5.00 0.535 90.4 75-125

Matrix Spike Dup (BGA0663-MSD1)

Source: 2301458-07

Prepared: 01/27/23 Analyzed: 01/30/23

Boron 5.01 0.0100 mg/L 5.00 0.535 89.5 75-125 0.931 25

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD		

Batch BGA0699 - EPA 3050B

Blank (BGA0699-BLK1)

Prepared: 01/27/23 Analyzed: 01/31/23

Arsenic	ND	0.200	mg/kg wet						
Barium	ND	0.400	"						
Cadmium	ND	0.200	"						
Copper	ND	0.400	"						
Lead	ND	0.200	"						
Nickel	ND	0.400	"						
Selenium	ND	0.260	"						
Silver	ND	0.0200	"						
Zinc	ND	0.400	"						

LCS (BGA0699-BS1)

Prepared: 01/27/23 Analyzed: 01/31/23

Arsenic	34.0	0.200	mg/kg wet	40.0	85.0	80-120
Barium	34.5	0.400	"	40.0	86.3	80-120
Cadmium	1.94	0.200	"	2.00	97.1	80-120
Copper	32.9	0.400	"	40.0	82.2	80-120
Lead	18.9	0.200	"	20.0	94.5	80-120
Nickel	33.2	0.400	"	40.0	82.9	80-120
Selenium	3.57	0.260	"	4.00	89.4	80-120
Silver	1.90	0.0200	"	2.00	94.8	80-120
Zinc	33.1	0.400	"	40.0	82.9	80-120

Duplicate (BGA0699-DUP1)

Source: 2301492-01

Prepared: 01/27/23 Analyzed: 01/31/23

Arsenic	2.19	0.243	mg/kg dry	4.18	62.5	20	QR-03
Barium	52.2	0.486	"	62.4	17.7	20	
Cadmium	0.297	0.243	"	0.508	52.5	20	QR-03
Copper	10.5	0.486	"	10.5	0.155	20	
Lead	16.3	0.243	"	15.0	8.67	20	
Nickel	12.3	0.486	"	11.0	11.5	20	
Selenium	1.22	0.260	"	1.32	7.89	20	
Silver	0.0340	0.0243	"	0.0516	41.0	20	QR-03
Zinc	29.8	0.486	"	25.4	16.3	20	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

Batch BGA0699 - EPA 3050B

Matrix Spike (BGA0699-MS1)

Source: 2301492-01

Prepared: 01/27/23 Analyzed: 01/31/23

Analyte	Result	Limit	Units	Spike Level	Source Result	Source %REC	Source Limits	Source RPD	RPD Limit	Notes
Arsenic	50.4	0.243	mg/kg dry	48.6	4.18	95.2	75-125			
Barium	137	0.486	"	48.6	62.4	153	75-125			QM-05
Cadmium	2.35	0.243	"	2.43	0.508	76.0	75-125			
Copper	49.4	0.486	"	48.6	10.5	80.1	75-125			
Lead	36.3	0.243	"	24.3	15.0	87.8	75-125			
Nickel	50.3	0.486	"	48.6	11.0	81.1	75-125			
Selenium	6.08	0.260	"	4.86	1.32	97.9	75-125			
Silver	2.08	0.0243	"	2.43	0.0516	83.6	75-125			
Zinc	69.5	0.486	"	48.6	25.4	90.9	75-125			

Matrix Spike Dup (BGA0699-MSD1)

Source: 2301492-01

Prepared: 01/27/23 Analyzed: 01/31/23

Analyte	Result	Limit	Units	Spike Level	Source Result	Source %REC	Source Limits	Source RPD	RPD Limit	Notes
Arsenic	51.1	0.243	mg/kg dry	48.6	4.18	96.6	75-125	1.39	25	
Barium	137	0.486	"	48.6	62.4	154	75-125	0.243	25	QM-05
Cadmium	2.39	0.243	"	2.43	0.508	77.3	75-125	1.41	25	
Copper	50.0	0.486	"	48.6	10.5	81.3	75-125	1.15	25	
Lead	36.2	0.243	"	24.3	15.0	87.5	75-125	0.169	25	
Nickel	51.1	0.486	"	48.6	11.0	82.7	75-125	1.54	25	
Selenium	5.96	0.260	"	4.86	1.32	95.6	75-125	1.88	25	
Silver	2.09	0.0243	"	2.43	0.0516	84.0	75-125	0.427	25	
Zinc	70.5	0.486	"	48.6	25.4	92.9	75-125	1.37	25	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

Batch BGA0708 - 3060A Mod

Blank (BGA0708-BLK1)

Prepared: 01/29/23 Analyzed: 01/30/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGA0708-BS1)

Prepared: 01/29/23 Analyzed: 01/30/23

Chromium, Hexavalent 25.4 0.30 mg/kg wet 25.0 102 80-120

Duplicate (BGA0708-DUP1)

Source: 2301492-01

Prepared: 01/29/23 Analyzed: 01/30/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGA0708-MS1)

Source: 2301492-01

Prepared: 01/29/23 Analyzed: 01/30/23

Chromium, Hexavalent 30.8 0.30 mg/kg dry 30.3 ND 101 75-125

Matrix Spike Dup (BGA0708-MSD1)

Source: 2301492-01

Prepared: 01/29/23 Analyzed: 01/30/23

Chromium, Hexavalent 43.2 0.30 mg/kg dry 30.3 ND 142 75-125 33.6 20 QM-05

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

Batch BGA0700 - General Preparation

Blank (BGA0700-BLK1)

Prepared: 01/28/23 Analyzed: 01/30/23

Calcium	ND	0.0500	mg/L wet						
Magnesium	ND	0.0500	"						
Sodium	ND	0.0500	"						

LCS (BGA0700-BS1)

Prepared: 01/28/23 Analyzed: 01/30/23

Calcium	6.42	0.0500	mg/L wet	5.00	128	70-130
Magnesium	5.32	0.0500	"	5.00	106	70-130
Sodium	5.38	0.0500	"	5.00	108	70-130

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 02/06/23 10:31

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike	Source		%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

Batch BGA0728 - General Preparation

Duplicate (BGA0728-DUP1)		Source: 2301492-01			Prepared & Analyzed: 01/30/23					
% Solids	82.2		%		82.4		0.274	20		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BGA0706 - General Preparation

Blank (BGA0706-BLK1)

Prepared & Analyzed: 01/29/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGA0706-BS1)

Prepared & Analyzed: 01/29/23

Specific Conductance (EC) 0.144 0.0100 mmhos/cm 0.150 96.3 95-105

Duplicate (BGA0706-DUP1)

Source: 2301492-01

Prepared & Analyzed: 01/29/23

Specific Conductance (EC) 6.19 0.0100 mmhos/cm 6.25 0.965 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BGA0705 - General Preparation

LCS (BGA0705-BS1)

Prepared & Analyzed: 01/29/23

pH	9.11	pH Units	9.18	99.2	95-105
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Duplicate (BGA0705-DUP1)

Source: 2301492-01

Prepared & Analyzed: 01/29/23

pH	7.88	pH Units	7.72	2.05	20
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 8-60-14B

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/06/23 10:31

Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- 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
- RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

February 13, 2023

Martin Eckert III

Civitas Resources

650 Southgate Drive

Windsor, CO 80550

RE: Boomslang Federal 14

Work Order # 2302165

Enclosed are the results of analyses for samples received by Summit Scientific on 02/09/23 16:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mikayla Axtell For Paul Shrewsbury

President



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/13/23 09:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Background-01@1.5'	2302165-01	Soil	01/27/23 11:40	02/09/23 16:05
Background-02@0.5'	2302165-02	Soil	01/27/23 13:00	02/09/23 16:05
Background-03@3.5'	2302165-03	Soil	01/27/23 14:22	02/09/23 16:05
Background-04@5'	2302165-04	Soil	01/27/23 14:44	02/09/23 16:05

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SUMMIT SCIENTIFIC

4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID
2302165
Page 1 of 1

Client: Eagle Environmental/Civitas		Project Manager: Martin Echeit III		Company: Bill to Cory / Civitas	
Address: 5000 W 14th Ave		E-Mail: MCEB@eagle-environ.com		Project Name/Location:	
City/State/Zip: Wheat Ridge CO 80033		Project Name: BOOMSLANG FEDERAL 14		AFE#:	
Phone: 303-433-0479		Project Number: _____		PO/Billing Codes:	
Sampler Name: km		Contact:			

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Other	Analysis Requested					Special Instructions	
					HCl	HNO3	None	Other	Water	Soil			Arsenic - 6020B	Silicium - 6020B	Lead - 6020B	Barium - 6020B	EC - 9070A		SAR - 20B
1	Background-01 @ 1.5'	1-27-23	1141	2			X						X	X	X	X			ELISAR, PH - Excluded probe
2	Background-02 @ 1.5'	↓	1300	↓			↓						X	X	X	X			mp
3	Background-03 @ 3.5'	↓	1422	↓			↓						X	X	X	X			
4	Background-04 @ 5'	↓	1144	↓			↓						X	X	X	X			MDCs manual
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: Kyle M	Date/Time: 2/9/23 1622	Received by: Santo Slachy	Date/Time: 2/9/23 1605	TAT Business Days	Field DO	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input checked="" type="checkbox"/>	Field EC	
				1 Day <input type="checkbox"/>	Field ORP	
				2 Days <input type="checkbox"/>	Field pH	
				3 Days <input type="checkbox"/>	Field Temp.	
				Standard <input type="checkbox"/>	Field Turb.	
Temperature Upon Receipt: 8.7	Corrected Temperature: _____	IR gun #: 02	HNO3 lot #: _____			

S₂

Sample Receipt Checklist

S2 Work Order# 2302165

Client: Eagle Environmental Client Project ID: Boomslang Federal 14

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #: _____

Matrix (Check all that apply) Air Soil/Solid Water Other

Temp (°C) Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>On Ice</u>
If custody seals are present, are they intact? ⁽¹⁾	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>Same day</u>
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

ST
Custodian Printed Name

2/9/23
Date/Time



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/13/23 09:49

Background-01@1.5'
2302165-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **01/27/23 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	1.96	0.200	0.168	mg/kg dry	1	BGB0280	02/09/23	02/10/23	EPA 6020B	
Barium	210	0.400	0.316	"	"	"	"	"	"	
Lead	8.59	0.200	0.0550	"	"	"	"	"	"	
Selenium	0.846	0.260	0.175	"	"	"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **01/27/23 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	43.2	0.0597		mg/L dry	1	BGB0283	02/09/23	02/11/23	EPA 6020B	
Magnesium	7.68	0.0597		"	"	"	"	"	"	
Sodium	208	0.0597		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/27/23 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	7.00	0.00100		units	1	BGB0339	02/12/23	02/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/27/23 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	83.8			%	1	BGB0310	02/10/23	02/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/27/23 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 02/13/23 09:49

Background-01@1.5'
2302165-01 (Soil)

Summit Scientific

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Specific Conductance (EC)	1.16	0.0100	0.00100	mmhos/cm	1	BGB0320	02/10/23	02/10/23	EPA 120.1
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Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/27/23 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.03			pH Units	1	BGB0321	02/10/23	02/10/23	EPA 9045D	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/13/23 09:49

Background-02@0.5'
2302165-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **01/27/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	0.962	0.200	0.168	mg/kg dry	1	BGB0280	02/09/23	02/10/23	EPA 6020B	
Selenium	0.443	0.260	0.175	"	"	"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/27/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	92.3			%	1	BGB0310	02/10/23	02/13/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/27/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.13			pH Units	1	BGB0314	02/10/23	02/10/23	EPA 9045D	I-03

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/13/23 09:49

Background-03@3.5'
2302165-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **01/27/23 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	2.25	0.200	0.168	mg/kg dry	1	BGB0280	02/09/23	02/10/23	EPA 6020B	
Barium	166	0.400	0.316	"	"	"	"	"	"	
Lead	6.54	0.200	0.0550	"	"	"	"	"	"	
Selenium	1.58	0.260	0.175	"	"	"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **01/27/23 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	207	0.0612		mg/L dry	1	BGB0283	02/09/23	02/11/23	EPA 6020B	
Magnesium	39.6	0.0612		"	"	"	"	"	"	
Sodium	1980	0.0612		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/27/23 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	29.9	0.00100		units	1	BGB0339	02/12/23	02/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/27/23 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	81.7			%	1	BGB0310	02/10/23	02/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/27/23 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	9.21	0.0100	0.00100	mmhos/cm	1	BGB0320	02/10/23	02/10/23	EPA 120.1	

Summit Scientific

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Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 02/13/23 09:49

Background-03@3.5'
2302165-03 (Soil)

Summit Scientific

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/27/23 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.87			pH Units	1	BGB0321	02/10/23	02/10/23	EPA 9045D	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/13/23 09:49

Background-04@5'
2302165-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **01/27/23 14:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	2.35	0.200	0.168	mg/kg dry	1	BGB0280	02/09/23	02/10/23	EPA 6020B	
Barium	277	0.400	0.316	"	"	"	"	"	"	
Lead	9.64	0.200	0.0550	"	"	"	"	"	"	
Selenium	1.25	0.260	0.175	"	"	"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **01/27/23 14:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	120	0.0592		mg/L dry	1	BGB0283	02/09/23	02/11/23	EPA 6020B	
Magnesium	27.7	0.0592		"	"	"	"	"	"	
Sodium	297	0.0592		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/27/23 14:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	5.83	0.00100		units	1	BGB0339	02/12/23	02/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/27/23 14:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	84.4			%	1	BGB0310	02/10/23	02/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/27/23 14:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	2.16	0.0100	0.00100	mmhos/cm	1	BGB0320	02/10/23	02/10/23	EPA 120.1	

Summit Scientific

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Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 02/13/23 09:49

Background-04@5'
2302165-04 (Soil)

Summit Scientific

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **01/27/23 14:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.85			pH Units	1	BGB0321	02/10/23	02/10/23	EPA 9045D	

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/13/23 09:49

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BGB0280 - EPA 3050B

Blank (BGB0280-BLK1)

Prepared: 02/09/23 Analyzed: 02/10/23

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Lead	ND	0.200	"							
Selenium	ND	0.260	"							

LCS (BGB0280-BS1)

Prepared: 02/09/23 Analyzed: 02/10/23

Arsenic	45.2	0.200	mg/kg wet	40.0	113	80-120				
Barium	43.0	0.400	"	40.0	107	80-120				
Lead	22.6	0.200	"	20.0	113	80-120				
Selenium	4.20	0.260	"	4.00	105	80-120				

Duplicate (BGB0280-DUP1)

Source: 2302165-01

Prepared: 02/09/23 Analyzed: 02/10/23

Arsenic	1.94	0.200	mg/kg dry	1.96			0.902	20		
Barium	227	0.400	"	210			7.63	20		
Lead	8.82	0.200	"	8.59			2.65	20		
Selenium	0.928	0.260	"	0.846			9.19	20		

Matrix Spike (BGB0280-MS1)

Source: 2302165-01

Prepared: 02/09/23 Analyzed: 02/10/23

Arsenic	50.6	0.200	mg/kg dry	47.7	1.96	102	75-125			
Barium	317	0.400	"	47.7	210	224	75-125			QM-05
Lead	31.1	0.200	"	23.9	8.59	94.3	75-125			
Selenium	5.05	0.260	"	4.77	0.846	88.1	75-125			

Matrix Spike Dup (BGB0280-MSD1)

Source: 2302165-01

Prepared: 02/09/23 Analyzed: 02/10/23

Arsenic	55.4	0.200	mg/kg dry	47.7	1.96	112	75-125	9.11	25	
Barium	354	0.400	"	47.7	210	301	75-125	11.0	25	QM-05
Lead	35.2	0.200	"	23.9	8.59	111	75-125	12.3	25	
Selenium	5.76	0.260	"	4.77	0.846	103	75-125	13.2	25	

Summit Scientific

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Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 02/13/23 09:49

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BGB0283 - General Preparation

Blank (BGB0283-BLK1)

Prepared: 02/09/23 Analyzed: 02/11/23

Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BGB0283-BS1)

Prepared: 02/09/23 Analyzed: 02/11/23

Calcium	5.19	0.0500	mg/L wet	5.00		104	70-130			
Magnesium	4.87	0.0500	"	5.00		97.4	70-130			
Sodium	4.73	0.0500	"	5.00		94.6	70-130			

Summit Scientific

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Civitas Resources
 650 Southgate Drive
 Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
 Project Manager: Martin Eckert III

Reported:
 02/13/23 09:49

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike	Source	%REC			RPD	Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BGB0310 - General Preparation

Duplicate (BGB0310-DUP1)	Source: 2302165-01	Prepared: 02/10/23	Analyzed: 02/13/23		
% Solids	83.1	%	83.8	0.876	20

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/13/23 09:49

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BGB0320 - General Preparation

Blank (BGB0320-BLK1)

Prepared & Analyzed: 02/10/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGB0320-BS1)

Prepared & Analyzed: 02/10/23

Specific Conductance (EC) 0.151 0.0100 mmhos/cm 0.150 101 95-105

Duplicate (BGB0320-DUP1)

Source: 2302161-01

Prepared & Analyzed: 02/10/23

Specific Conductance (EC) 1.55 0.0100 mmhos/cm 1.57 1.22 20

Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/13/23 09:49

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD		

Batch BGB0314 - General Preparation

LCS (BGB0314-BS1)

Prepared & Analyzed: 02/10/23

pH	9.00		pH Units	9.18		98.0	95-105		
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Duplicate (BGB0314-DUP1)

Source: 2302165-02

Prepared & Analyzed: 02/10/23

pH	8.03		pH Units		8.13			1.24	20
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Batch BGB0321 - General Preparation

LCS (BGB0321-BS1)

Prepared & Analyzed: 02/10/23

pH	9.00		pH Units	9.18		98.0	95-105		
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Duplicate (BGB0321-DUP1)

Source: 2302161-01

Prepared & Analyzed: 02/10/23

pH	7.68		pH Units		7.69			0.130	20
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Summit Scientific

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Civitas Resources
650 Southgate Drive
Windsor CO, 80550

Project: Boomslang Federal 14

Project Number: [none]
Project Manager: Martin Eckert III

Reported:
02/13/23 09:49

Notes and Definitions

- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- I-03 This sample was recieved and analyzed outside of the recommended holding time.
- 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
- RPD Relative Percent Difference