

Wellhead Closure Checklist

COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

Additional attachments (optional): <u> </u>		Pit Closure <u> </u>		Tank Battery Closure 04/26/24		Flowline Closure 04/26/24		Partially Buried Vault Closure 04/26/24	
Site Name & COGCC Facility Number: State Antelope 41-15HZ		Date: 04/05/24					Remediation Project #: 34087		
Associated Wells: 05-123-33361		Age of Site: Years					Number of Photos Attached: 2		
Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple)						40.405490, -104.302330			
Estimated Facility Size (acres):									
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.) Good condition.									
USCS Soil Type: Silty SAND (SM)				Estimated Depth to Groundwater: Approx. 20-40'					
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed.									
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed.									
Wellhead(s)									
Well API	05-123-33361								
Age	Years								
Condition of surface around wellhead	Good - Per Crew								
PID Readings	N/A - Excavated Upon Arrival								
Condition of subsurface (staining present)	Good - No odor/no staining								
PID Readings	2.7	2.7	3.3	1.1	4.3				
Sample taken? Location/Sample ID#	WH-SS-01	WH-SS-02	WH-SS-03	WH-SS-04	WH-FS-01				
Photo Number(s)	See photolog								
Other observations regarding wellheads: Well casing cut/capped prior to assessment.									
Summary									
Was impacted soil identified? <input checked="" type="checkbox"/> No Yes - less than 10 cubic yards Yes - more than 10 cubic yards									
Total number of samples field screened: 5				Total number of samples collected: 5					
Highest PID Reading: 4.3				Total number of samples submitted to lab for analysis: 1					
If more than 10 cubic yards of impacted soil were observed:									
Vertical extent:				Estimated spill volume:					
Lateral extent: N/A				Volume of soil removed:					
Is additional investigation required?									
Was groundwater encountered during the investigation? <input checked="" type="checkbox"/> No Yes - not impacted or in contact with impacted soils Yes - groundwater impacted and/or in contact with impacted soils									
Measured depth to groundwater:				Was remedial groundwater removal conducted? Yes No					
Date Groundwater was encountered:				Commencement date of removal:					
Sheen on groundwater? Yes No				Volume of groundwater removed prior to sampling:					
Free product observed? Yes No				Volume of groundwater removed post sampling:					
Total number of samples collected:				Total Volume of groundwater removed:					
Total number of samples submitted to lab for analysis:									

Flowline Closure Checklist

COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

<i>Additional Attachments:</i>		Tank Battery Closure	04/26/24	Wellhead Closure	04/05/24	Pit Closure	04/26/24	Partially Buried Vault Closure	04/26/24
<i>Site Name & COGCC Facility Number:</i>		<i>Date:</i>		<i>Remediation Project #:</i>					
State Antelope 41-15HZ		04/26/24		34087					
<i>Associated Wells:</i>		<i>Age of Site:</i>		<i>Number of Photos Attached:</i>					
05-123-33361		Years		2					
<i>Starting point: (GPS coordinates and descriptions)</i>									
40.405490, -104.302330									
<i>End point: (GPS coordinates and descriptions)</i>									
40.405783, -104.302549									
<i>USCS Soil Type: Silty SAND (SM)</i>					<i>Estimated Depth to Groundwater: Approx. 20-40'</i>				
<i>Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)</i>									
None observed.									
<i>Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)</i>									
None observed.									
Flowlines									
<i>Flowline type</i>	O.G.W								
<i>Depth</i>	Approx. 4'								
<i>Age</i>	Years								
<i>Length</i>	Approx. 121'								
<i>Construction Material</i>	Steel								
<i>Were flowlines pulled?</i>	Yes								
<i>Visual Integrity of lines</i>	Good								
<i>Visual impacts if trenched</i>	Good - no odor/staining								
<i>PID Readings if trenched</i>	6.3	4.2							
<i>Sample taken? Location/Sample ID#</i>	FL-SS-01	FL-SS-02							
<i>Photo Number(s)</i>									
<i>Other observations regarding on location flowlines:</i>									
Flowline removed prior to assessment.									
Summary									
<i>Was impacted soil identified?</i>									
<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - less than 10 cubic yards <input type="checkbox"/> Yes - more than 10 cubic yards									
<i>Total number of samples field screened:</i> 2					<i>Total number of samples collected:</i> 2				
<i>Highest PID Reading:</i> 6.3					<i>Total number of samples submitted to lab for analysis:</i> 0				
<i>If more than 10 cubic yards of impacted soil were observed:</i>									
<i>Vertical extent:</i>					<i>Estimated spill volume:</i>				
<i>Lateral extent:</i>					<i>Volume of soil removed:</i>				
<i>Is additional investigation required?</i>									
<i>Was groundwater encountered during the investigation?</i>									
<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - not impacted or in contact with impacted soils <input type="checkbox"/> Yes - groundwater impacted and/or in contact with impacted soils									
<i>Measured depth to groundwater:</i>					<i>Was remedial groundwater removal conducted? Yes</i> <input type="checkbox"/> <i>No</i> <input type="checkbox"/>				
<i>Date Groundwater was encountered:</i>					<i>Commencement date of removal:</i>				
<i>Sheen on groundwater?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No					<i>Volume of groundwater removed prior to sampling:</i>				
<i>Free product observed?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No					<i>Volume of groundwater removed post sampling:</i>				
<i>Total number of samples collected:</i>					<i>Total Volume of groundwater removed:</i>				
<i>Total number of samples submitted to lab for analysis:</i>									

Third Party									
Removal Date									
Sample taken?									
PID Readings									
Photo Number(s)									

Other Facility Equipment

Equipment type	EDC				
Equipment Condition	Good				
Age	Years				
Soil impacts	None observed				
PID Readings	5.6				
Sample taken?	TB-SS-08				
Photo Number(s)	See photolog				

Other observations regarding other facility or third party equipment:

Equipment removed prior to assessment.

Summary

Was impacted soil identified?

No

Yes - less than 10 cubic yards

Yes - more than 10 cubic yards

Total number of samples field screened: 8

Total number of samples collected: 8

Highest PID Reading: 7.3

Total number of samples submitted to lab for analysis: 7

If more than 10 cubic yards of impacted soil were observed:

Vertical extent:

Estimated spill volume:

Lateral extent:

Volume of soil removed:

Is additional investigation required?

N/A

Was groundwater encountered during the investigation?

No

Yes - not impacted or in contact with impacted soils

Yes - groundwater impacted and/or in contact with impacted soils

Measured depth to groundwater:

Was remedial groundwater removal conducted? Yes No

Date Groundwater was encountered:

Commencement date of removal:

Sheen on groundwater?

Yes

No

N/A

Volume of groundwater removed prior to sampling:

Free product observed?

Yes

No

Volume of groundwater removed post sampling:

Total number of samples collected:

Total Volume of groundwater removed:

Total number of samples submitted to lab for analysis:

Buried or Partially Buried Vessel Closure Checklist

COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

Additional attachments (optional): <u> </u>	Pit Closure <u> </u>	Wellhead Closure 04/05/24	Flowline Closure 04/26/24	Tank Battery Closure 04/26/24	
Site Name & COGCC Facility Number: Sate Antelope 41-15HZ -		Date: Location ID 422729		04/26/24	
Associated Wells: 05-123-33361		Age of Site: Years		Remediation Project #: 34087	
Location: (GPS coordinates of vault or southeastern tank berm for multiple)				40.405480, -104.302310	
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)					
Good condition.					
USCS Soil Type: Silty SAND (SM)			Estimated Depth to Groundwater: Approx. 20-40'		
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)					
None observed.					
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)					
None observed.					
Buried or Partially Buried Vessels					
Tank Contents	Produced water				
Size (barrels)	Unknown				
Age	Years				
Construction Material	Unknown				
Visual Integrity of Tank	N/A				
Condition of tank contents	Slight odor, no staining				
PID Readings					
Condition of Access Lines	Good condition.				
PID Readings	6.1	5.9	5.1	7.3	5.7
Sample taken? Location/Sample ID#	WV-SS-01	WV-SS-02	WV-SS-03	WV-SS-04	WV-FS-01
Photo Number(s)	See photolog				
Other observations regarding partially buried vessels:					
Water vault removed prior to assessment.					
Summary					
Was impacted soil identified?					
<input checked="" type="checkbox"/> No		Yes - less than 10 cubic yards		Yes - more than 10 cubic yards	
Total number of samples field screened: 5			Total number of samples collected: 5		
Highest PID Reading: 7.3			Total number of samples submitted to lab for analysis: 2		
If more than 10 cubic yards of impacted soil were observed:					
Vertical extent:			Estimated spill volume:		
Lateral extent:			Volume of soil removed:		
Is additional investigation required?			N/A		
Was groundwater encountered during the investigation?					
<input checked="" type="checkbox"/> No		Yes - not impacted or in contact with impacted soils		Yes - groundwater impacted and/or in contact with impacted soils	
Measured depth to groundwater:			Was remedial groundwater removal conducted? Yes No		
Date Groundwater was encountered:			Commencement date of removal:		
Sheen on groundwater? Yes			N/A		
Free product observed? Yes No			Volume of groundwater removed prior to sampling:		
			Volume of groundwater removed post sampling:		
Total number of samples collected:			Total Volume of groundwater removed:		
Total number of samples submitted to lab for analysis:					



FIGURES

Figure 1: Topographic Site Location Map

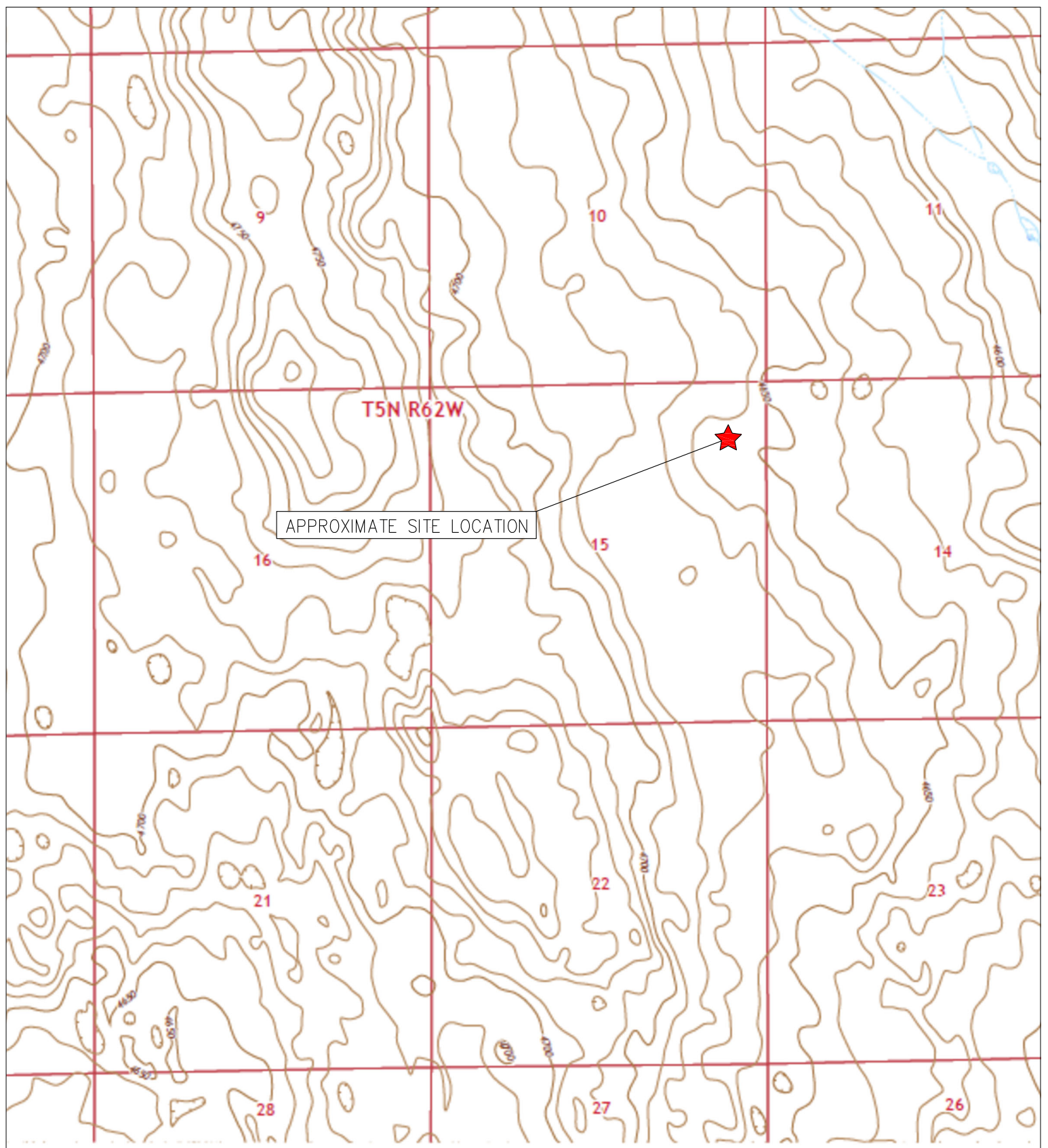
Figure 2: Aerial Site Location Map

Figure 3: Initial Soil Analytical Map

Figure 4: Initial Metals in Soil Map

Figure 5: Confirmation Soil Analytical Map

Figure 6: Confirmation Metals in Soil Map



APPROXIMATE SITE LOCATION

T5N R62W

TOPOGRAPHIC SITE LOCATION MAP
 STATE ANTELOPE 41-15HZ
 CLOSURE ASSESSMENT
 40.405490 / -104.302330
 NE¼ NE¼ SEC.15 T5N R62W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-33361
 LOCATION ID 422729
 REMEDIATION # 34087



EAGLE
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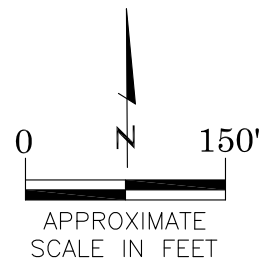
SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP,
 POINT OF ROCKS, CO QUADRANGLE 2022

FIGURE NO. 1



LEGEND

- FORMER STATE ANTELOPE 41-15HZ WELLHEAD (PLUGGED AND ABANDONED)
- ASSOCIATED SEPARATOR
- FORMER STATE ANTELOPE 41-15HZ TANK BATTERY (DECOMMISSIONED)
- SEPARATOR CONTAINMENT AREA (DECOMMISSIONED)
- WATER VAULT LOCATION (REMOVED)
- APPROXIMATE FLOWLINE LOCATION (REMOVED)



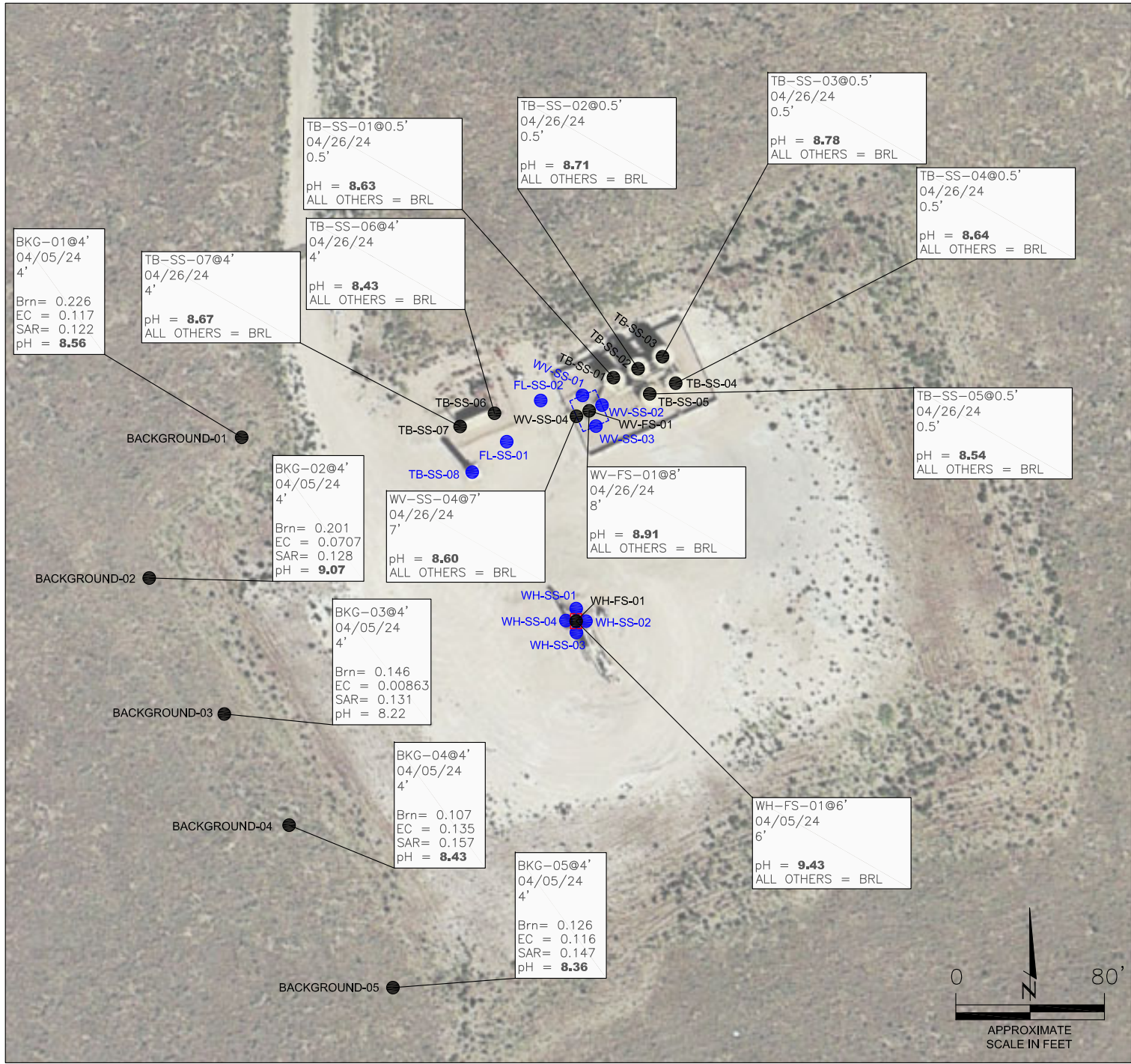
AERIAL SITE LOCATION MAP
 STATE ANTELOPE 41-15HZ
 CLOSURE ASSESSMENT
 40.405490 / -104.302330
 NE¼ NE¼ SEC.15 T5N R62W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-33361
 LOCATION ID 422729
 REMEDIATION # 34087

FIGURE NO.
2

DRAWN BY:
EL



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LEGEND

- WELLHEAD EXCAVATION BOUNDARIES
- WATER VAULT EXCAVATION BOUNDARIES
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS
- APPROXIMATE LOCATION OF SOIL SAMPLES FIELD-SCREENED WITH PHOTOIONIZATION DETECTOR

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)
PAHs = POLYCYCLIC AROMATIC HYDROCARBONS (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

BRL - BELOW REGULATORY LIMITS
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:
CONCENTRATIONS/VALUES EXCEEDING REGULATORY LIMITS, ONLY, DISPLAYED.

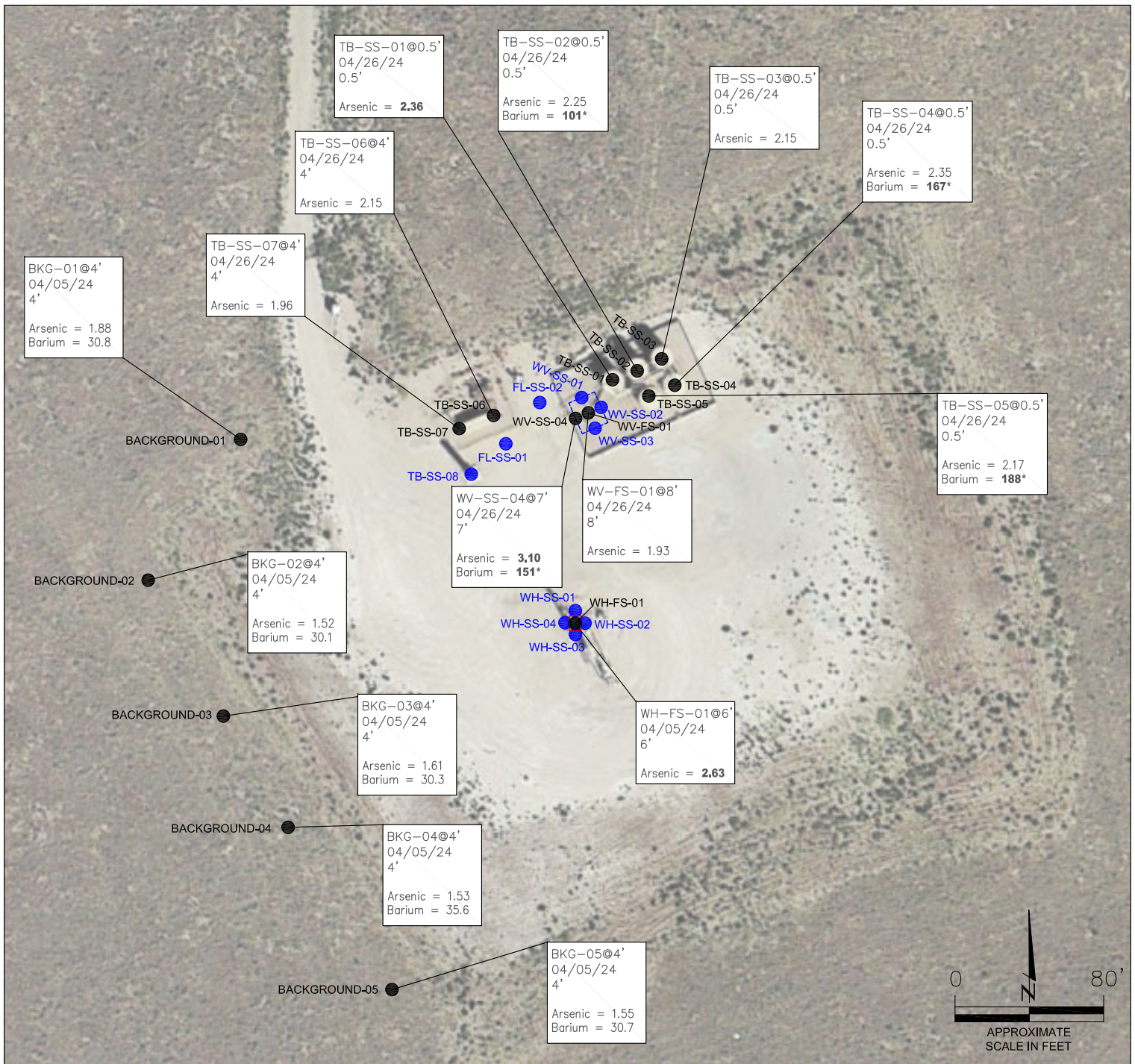
VALUES PRESENTED IN **BOLD** EXCEED ECMC TABLE 915-1 REGULATORY LIMITS.

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

SOIL ANALYTICAL MAP
STATE ANTELOPE 41-15HZ
CLOSURE ASSESSMENT
40.405490 / -104.302330
NE¼ NE¼ SEC.15 T5N R62W 6PM
WELD COUNTY, COLORADO
API # 05-123-33361
REMEDATION # 34087

DATE:
06/11/24
DRAWN BY:
GK
FIG.
NO. 3





LEGEND

- - - - - WELLHEAD EXCAVATION BOUNDARIES
- - - - - WATER VAULT EXCAVATION BOUNDARIES
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS
- APPROXIMATE LOCATION OF SOIL SAMPLES FIELD-SCREENED WITH PHOTOIONIZATION DETECTOR

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:
 CONCENTRATIONS/VALUES EXCEEDING REGULATORY LIMITS, ONLY, DISPLAYED.

VALUES PRESENTED IN **BOLD** EXCEED ECMC TABLE 915-1 REGULATORY LIMITS AND BACKGROUND COMPARISONS. VALUES PRESENTED WITH ASTERISK (*) EXCEED ECMC TABLE 915 PROTECTION OF GROUNDWATER SOIL SCREENING LEVELS FOR THAT COMPOUND.

LOCAL CLEAN-UP LEVELS FOR METALS = 1.25*BACKGROUND HIGH

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

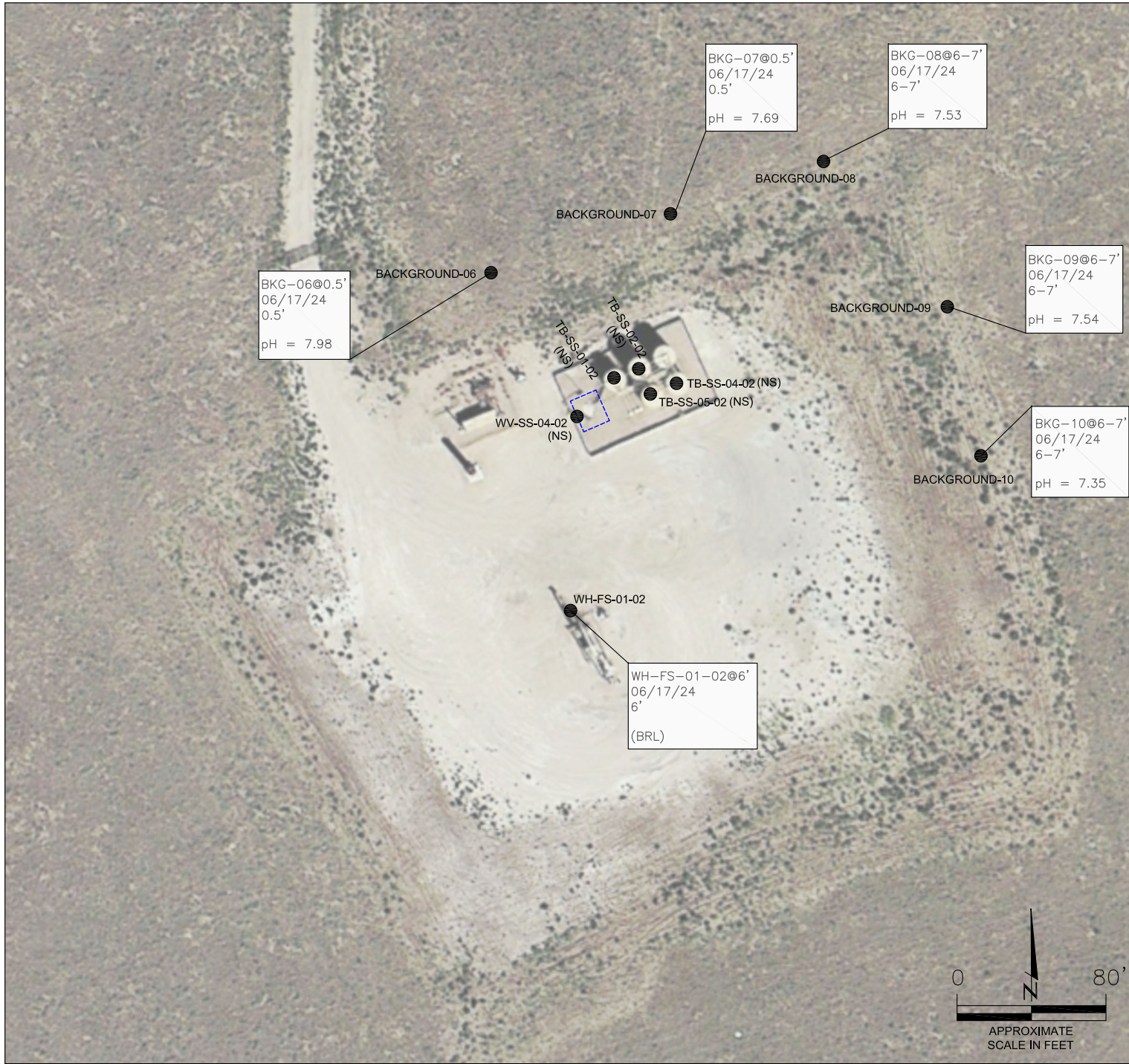
METALS IN SOIL MAP
 STATE ANTELOPE 41-15HZ
 CLOSURE ASSESSMENT
 40.405490 / -104.302330
 NE¼ NE¼ SEC.15 T5N R62W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-33361
 REMEDIATION # 34087

DATE:
06/11/24
 DRAWN BY:
GK
 FIG. NO.
4



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LEGEND

- WATER VAULT EXCAVATION BOUNDARIES
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

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)
PAHs = POLYCYCLIC AROMATIC HYDROCARBONS (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

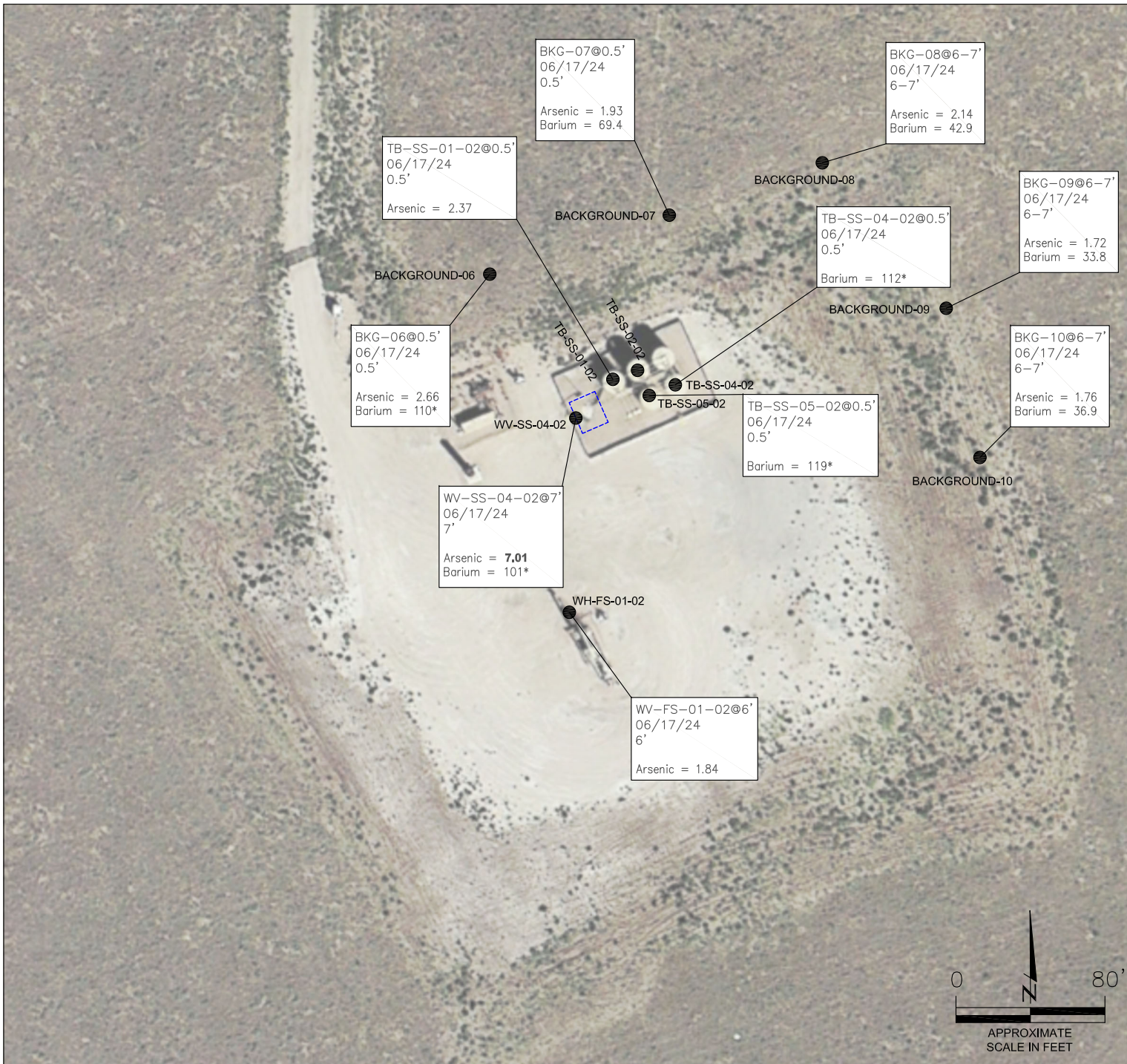
- (NS) – NOT SAMPLED
- (BRL) – ALL VALUES BELOW REGULATORY LIMITS
- TPH-GRO = TOTAL PETROLEUM HYDROCARBONS – GASOLINE RANGE ORGANICS
- TPH-DRO = TOTAL PETROLEUM HYDROCARBONS – DIESEL RANGE ORGANICS
- TPH-RRO = TOTAL PETROLEUM HYDROCARBONS – RESIDUAL RANGE ORGANICS

NOTES:
 VALUES PRESENTED IN **BOLD** EXCEED ECMC TABLE 915-1 REGULATORY LIMITS.
 ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

SOIL ANALYTICAL MAP
 STATE ANTELOPE 41-15HZ
 CONFIRMATION SAMPLING
 40.405490 / -104.302330
 NE¼ NE¼ SEC.15 T5N R62W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-33361
 LOCATION ID 422729
 REMEDIATION # 34087

DATE:	07/08/24
DRAWN BY:	EL
FIG. NO.	5

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LEGEND

- WATER VAULT EXCAVATION BOUNDARIES
- APPROXIMATE LOCATION OF SOIL SAMPLES
SS-02 SUBMITTED FOR LABORATORY ANALYSIS

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:
CONCENTRATIONS/VALUES EXCEEDING REGULATORY LIMITS, ONLY, DISPLAYED.

VALUES PRESENTED IN **BOLD** EXCEED ECMC TABLE 915-1 REGULATORY LIMITS AND BACKGROUND COMPARISONS. VALUES PRESENTED WITH ASTERISK (*) EXCEED ECMC TABLE 915 PROTECTION OF GROUNDWATER SOIL SCREENING LEVELS FOR THAT COMPOUND.

LOCAL CLEAN-UP LEVELS FOR METALS = 1.25*BACKGROUND HIGH

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

METALS IN SOIL MAP
STATE ANTELOPE 41-15HZ
CONFIRMATION SAMPLING
40.405490 / -104.302330
NE¼ NE¼ SEC.15 T5N R62W 6PM
WELD COUNTY, COLORADO
API # 05-123-33361
LOCATION ID 422729
REMIEDIATION # 34087

DATE:	07/08/24
DRAWN BY:	EL
FIG. NO.	6



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TABLES

Table 1: Photoionization Detector Reading Summary

Table 2: Soil Analytical Results Summary

Table 3: Polycyclic Aromatics Hydrocarbons Analytical Results Summary

Table 4: Metals Analytical Results Summary

TABLE 1
 PID READING SUMMARY
 STATE ANTELOPE 41-15HZ
 WELLHEAD/FACILITY DECOMMISSION
 40.405490 / -104.302330
 NE¼ NE¼ SEC.15 T5N R62W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-33361
 LOCATION ID 422729
 REMEDIATION # 34087

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Lab Submission (Y/N)	Sample Location Notes:
Background-01 @ 4' (40.405661 / -104.303044)	04/05/24	4	2.3	Y	Background comparison samples
Background-02 @ 4' (40.405545 / -104.303129)	04/05/24	4	1.9	Y	
Background-03 @ 4' (40.405342 / -104.303036)	04/05/24	4	1.7	Y	
Background-04 @ 4' (40.405183 / -104.302925)	04/05/24	4	2.0	Y	
Background-05 @ 4' (40.404928 / -104.302712)	04/05/24	4	2.1	Y	
WH-SS-01 @ 5' (40.405507 / -104.302325)	04/05/24	5	2.7	N	Initial assessment soil samples
WH-SS-02 @ 5' (40.405504 / -104.302317)	04/05/24	5	2.7	N	
WH-SS-03 @ 5' (40.405492 / -104.302319)	04/05/24	5	3.3	N	
WH-SS-04 @ 5' (40.405500 / -104.302339)	04/05/24	5	1.1	N	
WH-FS-01 @ 6' (40.405503 / -104.302326)	04/05/24	6	4.3	Y	
TB-SS-01 @ 0.5' (40.405856 / -104.302248)	04/26/24	0.5	2.8	Y	
TB-SS-02 @ 0.5' (40.405860 / -104.302209)	04/26/24	0.5	5.2	Y	
TB-SS-03 @ 0.5' (40.405862 / -104.302150)	04/26/24	0.5	5.4	Y	
TB-SS-04 @ 0.5' (40.405811 / -104.302191)	04/26/24	0.5	5.8	Y	
TB-SS-05 @ 0.5' (40.405829 / -104.302132)	04/26/24	0.5	6.5	Y	
TB-SS-06 @ 4' (40.405808 / -104.302494)	04/26/24	4	7.2	Y	
TB-SS-07 @ 4' (40.405779 / -104.302553)	04/26/24	4	7.3	Y	
TB-SS-08 @ 4' (40.405696 / -104.302535)	04/26/24	4	5.6	N	
WV-SS-01 @ 7' (40.405818 / -104.302309)	04/26/24	7	6.1	N	
WV-SS-02 @ 7' (40.405809 / -104.302296)	04/26/24	7	5.9	N	
WV-SS-03 @ 7' (40.405795 / -104.302302)	04/26/24	7	5.1	N	
WV-SS-04 @ 7' (40.405803 / -104.302328)	04/26/24	7	7.3	N	
WV-FS-01 @ 8' (40.405843 / -104.302336)	04/26/24	8	5.7	Y	
FL-SS-01 @ 4' (40.405750 / -104.302467)	04/26/24	4	6.3	N	
FL-SS-02 @ 4' (40.405813 / -104.302414)	04/26/24	4	4.2	N	
Background-06 @ 0.5' (40.406002 / -104.302510)	06/17/24	0.5	9.2	Y	Background confirmation samples
Background-07 @ 0.5' (40.406102 / -104.302141)	06/17/24	0.5	2.8	Y	
Background-08 @ 6-7' (40.406180 / -104.301805)	06/17/24	6-7'	3.4	Y	
Background-09 @ 6-7' (40.405950 / -104.301616)	06/17/24	6-7'	1.7	Y	
Background-10 @ 6-7' (40.405741 / -104.301543)	06/17/24	6-7'	2.1	Y	Confirmation soil samples
WH-FS-01-02 @ 6' (40.405503 / -104.302326)	06/17/24	6	18.1	Y	
TB-SS-01-02 @ 0.5' (40.405856 / -104.302248)	06/17/24	0.5	6.3	Y	
TB-SS-02-02 @ 0.5' (40.405860 / -104.302209)	06/17/24	0.5	5.3	Y	
TB-SS-04-02 @ 0.5' (40.405811 / -104.302191)	06/17/24	0.5	1.7	Y	
TB-SS-05-02 @ 0.5' (40.405829 / -104.302132)	06/17/24	0.5	0.8	Y	
WV-SS-04-02 @ 7' (40.405801 / -104.302326)	06/17/24	7	42.6	Y	

(Y/N) = Yes or No
 ppm-v = parts per million by volume
 PID = Photoionization Detector

TABLE 2
 SOIL ANALYTICAL RESULTS SUMMARY
 STATE ANTELOPE 41-15HZ
 WELLHEAD/FACILITY DECOMMISSION
 40.405490 / -104.302330
 NE¼ NE¼ SEC.15 T5N R62W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-33361
 LOCATION ID 422729
 REMEDIATION # 34087

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-RRO (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)	Boron (mg/L)	Specific Conductance (mmhos/cm)	pH (pH units)	SAR
ECMC Table 915-1 Residential Screening Levels				1.20	490	5.8	58	500			30	27	2	<4	6-8.3	<6
ECMC Table 915-1 Protection of Groundwater Soil Screening Levels				0.0026	0.69	0.78	9.9	--			0.0081	0.0087	--	--	--	--
Background comparison samples																
Background-01 @ 4' (40.405661 / -104.303044)	04/05/24	4	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.226	0.117	8.56	0.122
Background-02 @ 4' (40.405545 / -104.303129)	04/05/24	4	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.201	0.0707	9.07	0.128
Background-03 @ 4' (40.405342 / -104.303036)	04/05/24	4	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.146	0.00863	8.22	0.131
Background-04 @ 4' (40.405183 / -104.302925)	04/05/24	4	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.107	0.135	8.43	0.157
Background-05 @ 4' (40.404928 / -104.302712)	04/05/24	4	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.126	0.116	8.36	0.147
Initial assessment soil samples																
WH-FS-01 @ 6' (40.405503 / -104.302326)	04/05/24	6	4.3	<0.0020	<0.0050	<0.0050	<0.010	<0.50	18	9.4	<0.0050	<0.0050	0.133	0.219	9.43	0.628
TB-SS-01 @ 0.5' (40.405856 / -104.302248)	04/26/24	0.5	2.8	<0.0020	<0.0050	<0.0050	<0.010	0.25	<50	<50	<0.0050	<0.0050	0.369	0.190	8.63	0.0178
TB-SS-02 @ 0.5' (40.4045860 / -104.302209)	04/26/24	0.5	5.2	<0.0020	<0.0050	<0.0050	<0.010	0.24	<50	<50	<0.0050	<0.0050	0.254	0.218	8.71	0.0470
TB-SS-03 @ 0.5' (40.405863 / -104.302150)	04/26/24	0.5	5.4	<0.0020	<0.0050	<0.0050	<0.010	0.24	<50	<50	<0.0050	<0.0050	0.146	0.145	8.78	0.0120
TB-SS-04 @ 0.5' (40.405811 / -104.302191)	04/26/24	0.5	5.8	<0.0020	<0.0050	<0.0050	<0.010	0.23	<50	<50	<0.0050	<0.0050	0.215	0.186	8.64	0.0750
TB-SS-05 @ 0.5' (40.405829 / -104.302132)	04/26/24	0.5	6.5	<0.0020	<0.0050	<0.0050	<0.010	0.24	<50	<50	<0.0050	<0.0050	0.110	0.216	8.54	0.0714
TB-SS-06 @ 4' (40.405808 / -104.302494)	04/26/24	4	7.2	<0.0020	<0.0050	<0.0050	<0.010	0.24	<50	<50	<0.0050	<0.0050	0.0925	0.213	8.43	0.124
TB-SS-07 @ 4' (40.405779 / -104.302553)	04/26/24	4	7.3	<0.0020	<0.0050	<0.0050	<0.010	0.24	<50	<50	<0.0050	<0.0050	0.183	0.255	8.67	0.0395
WV-SS-04 @ 7' (40.405803 / -104.302328)	04/26/24	7	7.3	<0.0020	<0.0050	<0.0050	<0.010	0.25	<50	<50	<0.0050	<0.0050	0.143	0.256	8.60	0.434
WV-FS-01 @ 8' (40.405843 / -104.302336)	04/26/24	8	5.7	<0.0020	<0.0050	<0.0050	<0.010	0.24	<50	<50	<0.0050	<0.0050	0.0762	0.187	8.91	0.150
Background confirmation samples																
Background-06 @ 0.5' (40.406002 / -104.302510)	06/17/24	4	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.98	NA
Background-07 @ 0.5' (40.406102 / -104.302141)	06/17/24	4	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.69	NA
Background-08 @ 6-7' (40.406180 / -104.301805)	06/17/24	4	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.53	NA
Background-09 @ 6-7' (40.405950 / -104.301616)	06/17/24	4	2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.54	NA
Background-10 @ 6-7' (40.405741 / -104.301543)	06/17/24	4	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.35	NA
Confirmation soil samples																
WH-FS-01-02 @ 6' (40.405503 / -104.302326)	06/17/24	6	4.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.89	NA
ECMC = Energy & Carbon Management Commission mg/kg = milligrams per kilogram mmhos/cm = millimhos per centimeter PID = Photoionization Detector ppm-v = parts per million by volume mg/L = milligrams per liter SAR = Sodium Adsorption Ratio NA = Not Analyzed TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics TPH-RRO = Total Petroleum Hydrocarbons - Residual Range Organics 1,2,4-TMB = 1,2,4-Trimethylbenzene 1,3,5-TMB = 1,3,5-Trimethylbenzene MDL = Minimum Detection Limits Note: Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory MDL and/or reporting limit. Note: Values presented in highlighted BOLD contained concentrations exceeding ECMC Table 915-1 Regulatory Limits.																

TABLE 3
PAH ANALYTICAL RESULTS SUMMARY
STATE ANTELOPE 41-15HZ
WELLHEAD/FACILITY DECOMMISSION
40.405490 / -104.302330
NE¼ NE¼ SEC.15 T6N R62W 6PM
WELD COUNTY, COLORADO
API # 05-123-33361
LOCATION ID 422729
REMEDATION # 34087

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	1-Methyl- naphthalene (mg/kg)	2-Methyl- naphthalene (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)-anthracene (mg/kg)	Benzo(a)- pyrene (mg/kg)	Benzo(b)- fluoranthene (mg/kg)	Benzo(k)- fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(a,h)- anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(1,2,3- cd)-pyrene (mg/kg)	Naphthalene (mg/kg)	Pyrene (mg/kg)
ECMC Table 915-1 Residential Screening Levels				18	24	360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	2	180
ECMC Table 915-1 Protection of Groundwater Soil Screening Levels				0.006	0.019	0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	0.0038	1.3
Initial assessment soil samples																		
WH-FS-01 @ 6' (40.405503 / -104.302326)	04/05/24	6	2.1	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0038	<0.00500
TB-SS-01 @ 0.5' (40.405856 / -104.302248)	04/26/24	0.5	2.8	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0038	<0.00500
TB-SS-02 @ 0.5' (4040.405860 / -104.302209)	04/26/24	0.5	5.2	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0038	<0.00500
TB-SS-03 @ 0.5' (40.405862 / -104.302150)	04/26/24	0.5	5.4	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0038	<0.00500
TB-SS-04 @ 0.5' (40.405811 / -104.302191)	04/26/24	0.5	5.8	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0038	<0.00500
TB-SS-05 @ 0.5' (40.405829 / -104.302132)	04/26/24	0.5	6.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0038	<0.00500
TB-SS-06 @ 4' (40.405808 / -104.302494)	04/26/24	4	7.2	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0038	<0.00500
TB-SS-07 @ 4' (40.405779 / -104.302553)	04/26/24	4	7.3	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0038	<0.00500
WV-SS-04 @ 7' (40.405803 / -104.302328)	04/26/24	7	7.3	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0038	<0.00500
WV-FS-01 @ 8' (40.405843 / -104.302336)	04/26/24	8	5.9	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0038	<0.00500

ECMC = Energy & Carbon Management Commission

mg/kg = milligrams per kilogram

PID = Photoionization Detector

ppm-v = parts per million by volume

Note: Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit.

Note: Values presented in **BOLD** contained concentrations exceeding ECMC Table 915-1 Regulatory Limits.



TABLE 4
METALS ANALYTICAL RESULTS SUMMARY
STATE ANTELOPE 41-15HZ
WELLHEAD/FACILITY DECOMMISSION
40.405490 / -104.302330
NE¼ NE¼ SEC.15 T5N R62W 6PM
WELD COUNTY, COLORADO
API # 05-123-33361
LOCATION ID 422729
REMEDIATION # 34087

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Hexavalent Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Residential Screening Levels			0.68	15,000	71	0.3**	3,100	400	1,500	390	390	23,000
ECMC Table 915-1 Protection of Groundwater Soil Screening Levels			0.29	82	0.38	0.00067**	46	14	26	0.26	0.8	370
Local Cleanup Levels			3.33	137	--	0.1 to 1**	--	--	--	--	--	--
Background comparison samples												
Background-01 @ 4' (40.405661 / -104.303044)	04/05/24	4	1.88	30.8	0.0756	<0.30**	1.81	3.10	2.10	<0.236	0.0104	8.52
Background-02 @ 4' (40.405545 / -104.303129)	04/05/24	4	1.52	30.1	0.0751	<0.30**	1.79	3.14	2.06	<0.260	0.0101	8.59
Background-03 @ 4' (40.405342 / -104.303036)	04/05/24	4	1.61	30.3	0.0788	<0.30**	1.85	3.12	2.20	<0.260	0.0100	8.96
Background-04 @ 4' (40.405183 / -104.302925)	04/05/24	4	1.53	35.6	0.0781	<0.30**	1.84	3.32	2.06	<0.260	0.0103	8.76
Background-05 @ 4' (40.404928 / -104.302712)	04/05/24	4	1.55	30.7	0.0789	<0.30**	1.83	3.08	2.06	<0.260	0.0107	8.78
Initial assessment soil samples												
WH-FS-01 @ 6' (40.405503 / -104.302326)	04/05/24	6	2.63	70.2	0.107	<0.30**	2.68	3.80	2.28	<0.260	0.0128	9.98
TB-SS-01 @ 0.5' (40.405856 / -104.302248)	04/26/24	0.5	2.36	74.3	0.0936	<0.30**	1.84	4.24	2.48	<0.260	0.0122	9.53
TB-SS-02 @ 0.5' (4040.405860 / -104.302209)	04/26/24	0.5	2.25	101*	0.130	<0.30**	2.37	5.05	2.88	<0.260	0.0150	11.2
TB-SS-03 @ 0.5' (40.405862 / -104.302150)	04/26/24	0.5	2.15	44.8	0.0796	<0.30**	1.79	3.84	2.17	<0.260	0.00922	9.74
TB-SS-04 @ 0.5' (40.405811 / -104.302191)	04/26/24	0.5	2.35	167*	0.215	<0.30**	3.31	7.11	3.62	<0.236	0.0245	13.9
TB-SS-05 @ 0.5' (40.405829 / -104.302132)	04/26/24	0.5	2.17	188*	0.234	<0.30**	3.36	7.32	3.45	<0.260	0.0199	18.5
TB-SS-06 @ 4' (40.405808 / -104.302494)	04/26/24	4	2.15	53.4	0.0905	<0.30	2.04	4.13	2.58	<0.260	0.0105	10.2
TB-SS-07 @ 4' (40.405779 / -104.302553)	04/26/24	4	1.96	54.8	0.0885	<0.30**	2.01	4.47	2.49	<0.260	0.0128	10.5
WV-SS-04 @ 7' (40.405803 / -104.302328)	04/26/24	7	3.10	151*	0.0938	<0.30**	2.15	4.83	3.33	<0.260	0.0102	13.3
WV-FS-01 @ 8' (40.405843 / -104.302336)	04/26/24	8	1.93	52.0	0.0884	<0.30**	1.74	4.22	2.86	<0.260	0.0108	11.7
Background confirmation samples												
Background-06 @ 0.5' (40.406002 / -104.302510)	06/17/24	4	2.66	110*	NA	NA	NA	NA	NA	NA	NA	NA
Background-07 @ 0.5' (40.406102 / -104.302141)	06/17/24	4	1.93	69.4	NA	NA	NA	NA	NA	NA	NA	NA



TABLE 4
METALS ANALYTICAL RESULTS SUMMARY
STATE ANTELOPE 41-15HZ
WELLHEAD/FACILITY DECOMMISSION
40.405490 / -104.302330
NE¼ NE¼ SEC.15 T5N R62W 6PM
WELD COUNTY, COLORADO
API # 05-123-33361
LOCATION ID 422729
REMIEDIATION # 34087

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Hexavalent Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Residential Screening Levels			0.68	15,000	71	0.3**	3,100	400	1,500	390	390	23,000
Background-08 @ 6-7' (40.406180 / -104.301805)	06/17/24	4	2.14	42.9	NA	NA	NA	NA	NA	NA	NA	NA
Background-09 @ 6-7' (40.405950 / -104.301616)	06/17/24	4	1.72	33.8	NA	NA	NA	NA	NA	NA	NA	NA
Background-10 @ 6-7' (40.405741 / -104.301543)	06/17/24	4	1.76	36.9	NA	NA	NA	NA	NA	NA	NA	NA
Confirmation soil samples												
WH-FS-01-02 @ 6' (40.405503 / -104.302326)	06/17/24	6	1.84	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-SS-01-02 @ 0.5' (40.405856 / -104.302248)	06/17/24	0.5	2.37	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB-SS-02-02 @ 0.5' (40.405860 / -104.302209)	06/17/24	0.5	NA	74.1	NA	NA	NA	NA	NA	NA	NA	NA
TB-SS-04-02 @ 0.5' (40.405811 / -104.302191)	06/17/24	0.5	NA	112*	NA	NA	NA	NA	NA	NA	NA	NA
TB-SS-05-02 @ 0.5' (40.405829 / -104.302132)	06/17/24	0.5	NA	119*	NA	NA	NA	NA	NA	NA	NA	NA
WV-SS-04-02 @ 7' (40.405801 / -104.302326)	06/17/24	7	7.01	101*	NA	NA	NA	NA	NA	NA	NA	NA
ECMC = Energy & Carbon Management Commission			Sample utilized for background comparison									
mg/kg = milligrams per kilogram												
Notes: Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit or minimum detection levels.												
Values presented in BOLD contained concentrations exceeding ECMC Table 915-1 Regulatory Limits and backgrounds, where applicable. Values presented with asterisk (*) exceed 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 levels for metals are 1.25*background high (excluding outliers).												





ATTACHMENT A

Photolog

State Antelope 41-15HZ

API # 05-123-33361

Location ID 422729

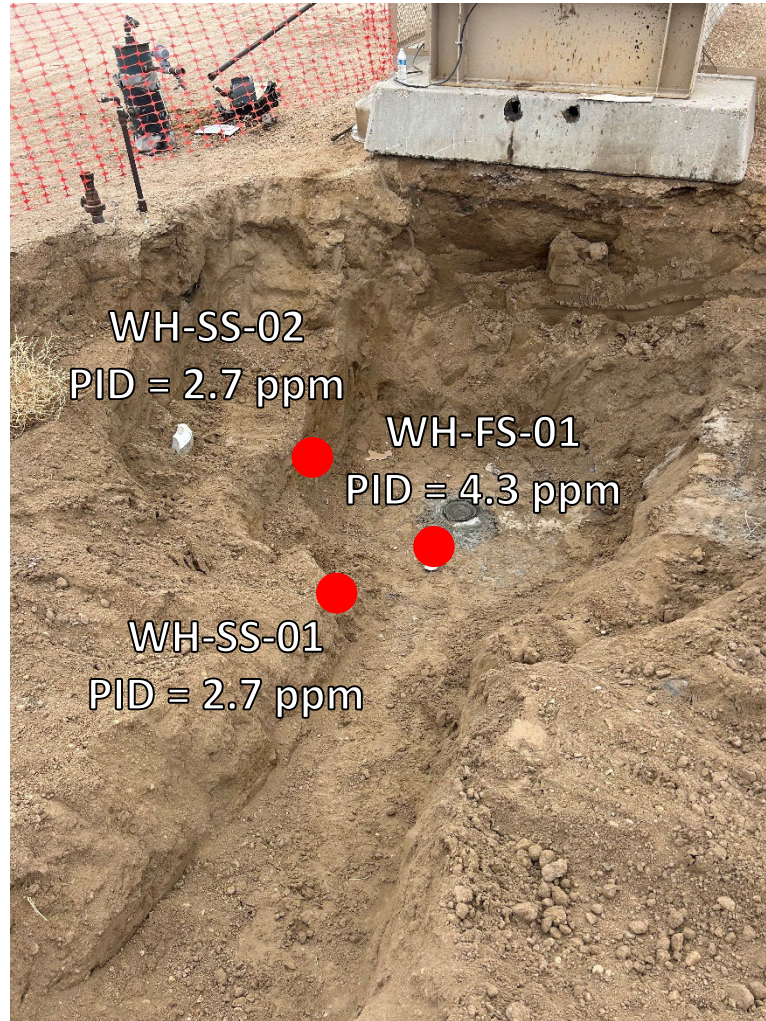
Remediation # 34087

Initial Assessment & Confirmation Sampling

April – June 2024



Wellhead Excavation – 04/05/24



Looking southeast

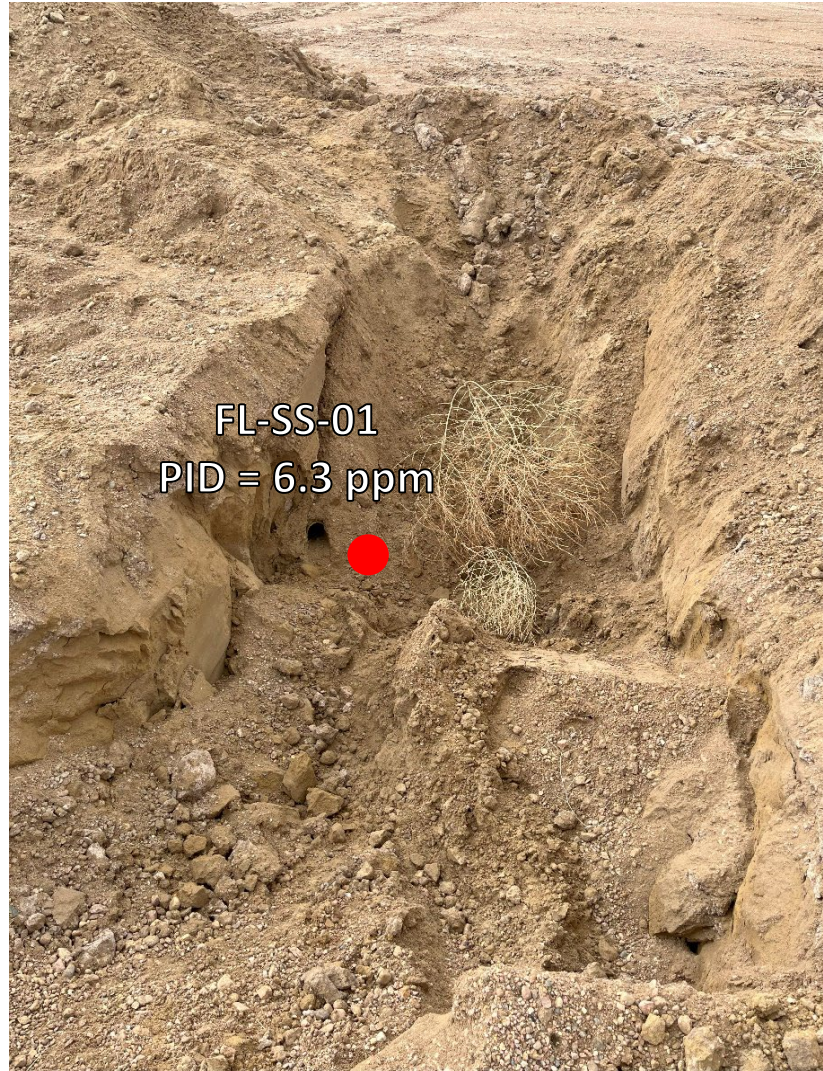
No petroleum hydrocarbon staining or odor observed



Looking southwest

No petroleum hydrocarbon staining or odor observed

Initial Tank Battery/Water Vault Decommission – 04/26/24



Looking south at bellhole/cut point for removal

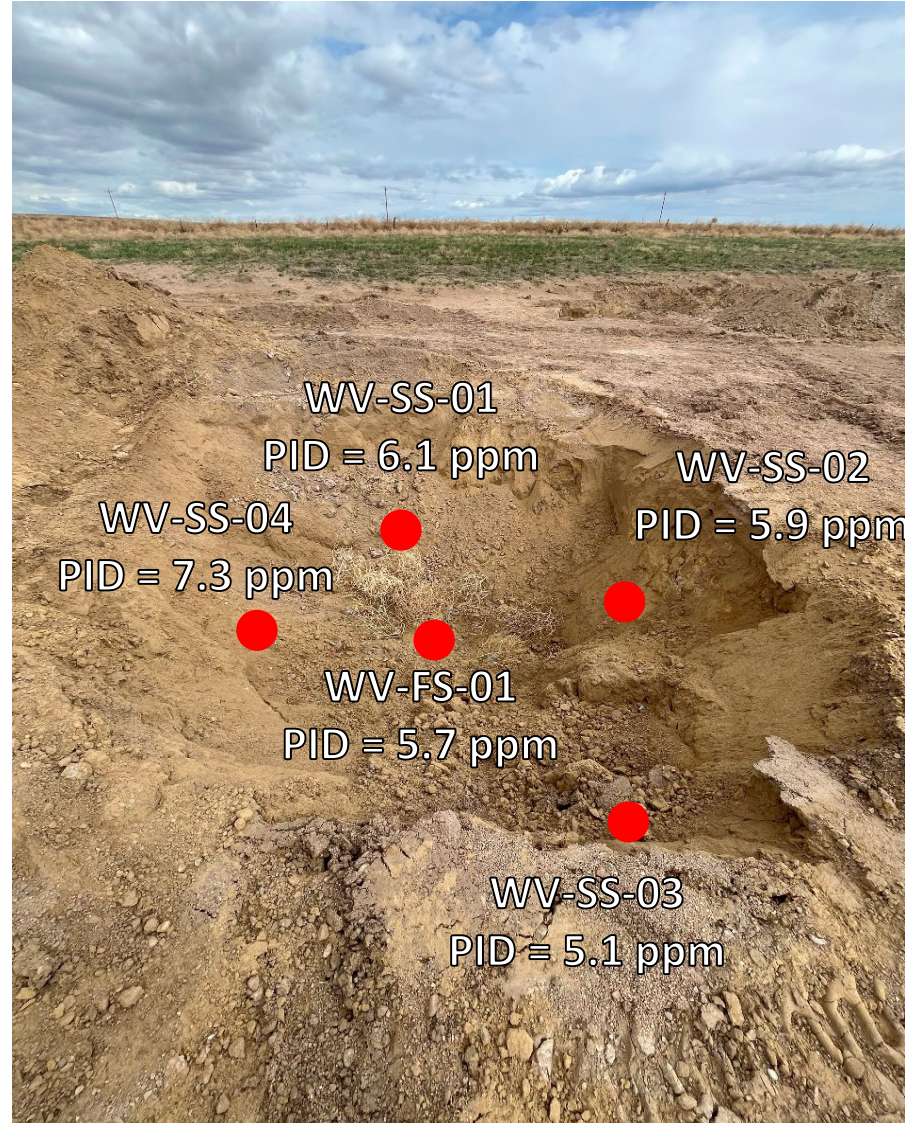
No petroleum hydrocarbon staining or odor observed



Looking north at bellhole/cut point for removal

No petroleum hydrocarbon staining or odor observed

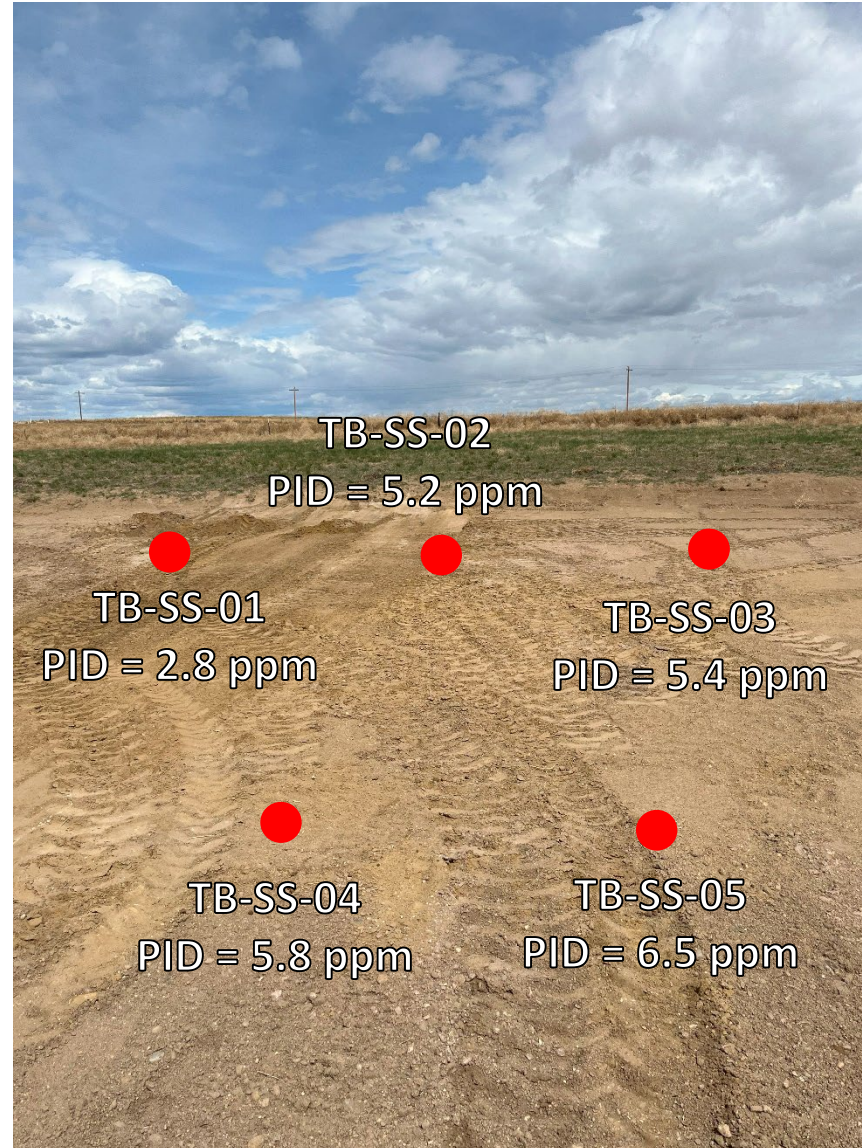
Initial Tank Battery/Water Vault Decommission – 04/26/24



Looking south at water vault excavation

No petroleum hydrocarbon staining observed. Strong odor observed on floor sample

Initial Tank Battery/Water Vault Decommission – 04/26/24



Looking north at tank battery footprint

No petroleum hydrocarbon staining or odor observed

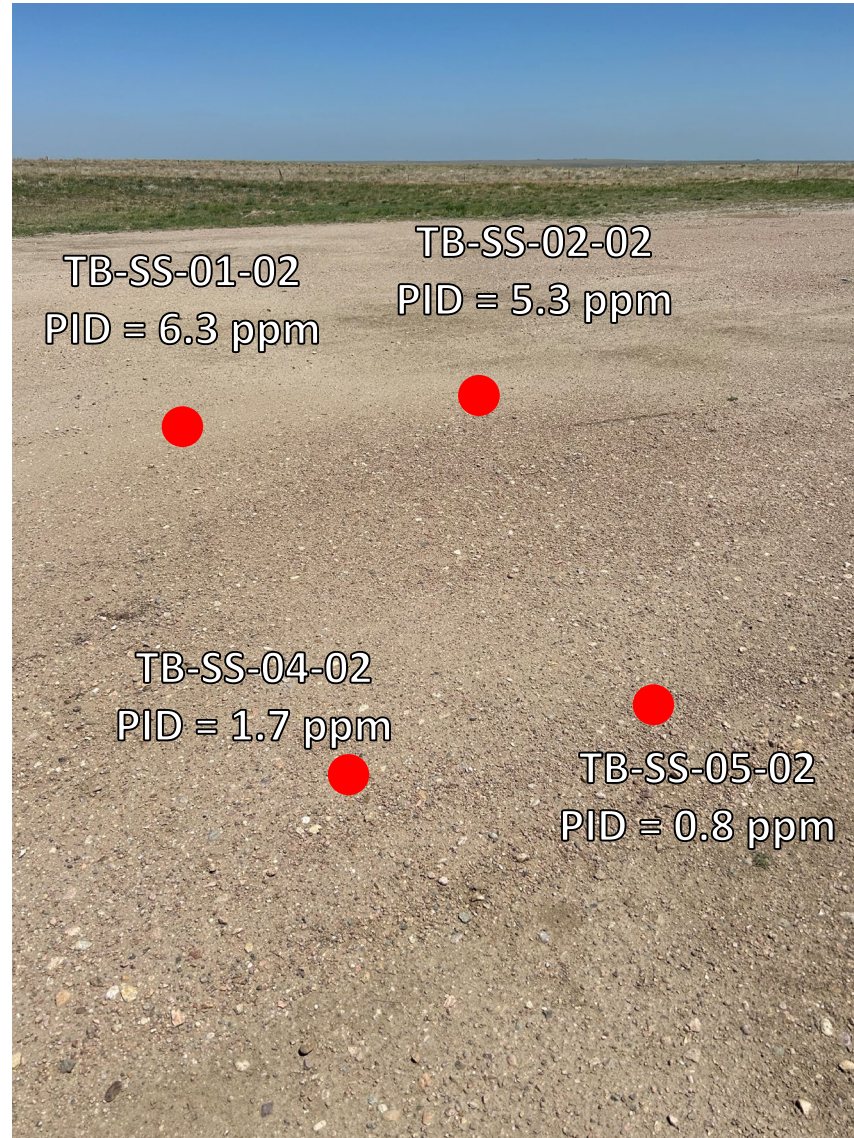
Initial Tank Battery/Water Vault Decommission – 04/26/24



Looking west at separator excavation

No petroleum hydrocarbon staining or odor observed

Confirmation Sampling – 06/17/24



Looking northwest at resampling of tank battery footprint

No petroleum hydrocarbon staining or odor observed

Confirmation Sampling – 06/17/24



Looking north at resampling of water vault

No petroleum hydrocarbon staining or odor observed



Looking north at resampling of water vault

No petroleum hydrocarbon staining or odor observed



ATTACHMENT B

Laboratory Analytical Reports

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

June 11, 2024

Andrew Newberry

Eagle Environmental Consulting

8000 W 44th Ave

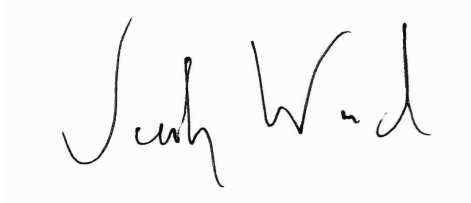
Wheat Ridge, CO 80033

RE: Civitas - Antelope 41-15HZ

Work Order # 2404101

Enclosed are the results of analyses for samples received by Summit Scientific on 04/05/24 16:28. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a distinct "W".

Jacob Wood For Paul Shrewsbury

President



Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Background-01@4'	2404101-01	Soil	04/05/24 12:45	04/05/24 16:28
Background-02@4'	2404101-02	Soil	04/05/24 12:47	04/05/24 16:28
Background-03@4'	2404101-03	Soil	04/05/24 12:49	04/05/24 16:28
Background-04@4'	2404101-04	Soil	04/05/24 12:51	04/05/24 16:28
Background-05@4'	2404101-05	Soil	04/05/24 12:53	04/05/24 16:28

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	Page 1 of 1
2404101	

Client: <i>Eagle Environmental Consulting</i>	Send Data To: Project Manager: <i>Andrew Newberry</i>	Send Invoice To: Company: <i>Civitas</i>
Address: <i>8000 W 44th Ave</i>	E-Mail: <i>anewberry@eagle-enviro.com</i>	Project Name/Location: <i>State Antelope 41-15H2</i>
City/State/Zip: <i>Wheat Ridge, CO 80033</i>	Project Name: <i>State Antelope 41-15H2</i>	AFE#:
Phone: <i>303-433-0479</i>	Project Number: <i>—</i>	PO/Billing Codes:
Sampler Name: <i>EL/2M</i>		Contact: <i>Jacob</i>

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested					Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	EL-9050A	SAR-208	pH-9045D	Ascor-DTPA/ perchlorate	915-mehs (602) CVI (7196A)		
1	<i>Background -01@4'</i>	<i>4/5/24</i>	<i>1245</i>	<i>2</i>			<i>X</i>				<i>X</i>			<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>EL, SAR, pH = Saturated paste prep * MDLs needed</i>
2	<i>Background -02@4'</i>	<i>↓</i>	<i>1247</i>	<i>↓</i>							<i>X</i>			<i>X</i>					
3	<i>Background -03@4'</i>	<i>↓</i>	<i>1249</i>	<i>↓</i>							<i>X</i>			<i>X</i>					
4	<i>Background -04@4'</i>	<i>↓</i>	<i>1251</i>	<i>↓</i>							<i>X</i>			<i>X</i>					
5	<i>Background -05@4'</i>	<i>↓</i>	<i>1253</i>	<i>↓</i>							<i>X</i>			<i>X</i>					
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: <i>[Signature]</i>	Date/Time: <i>4/5/24 10:24</i>	Received by: <i>J. W. d</i>	Date/Time: <i>4/5/24 16:28</i>	TAT Business Days	Field DO	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Standard	<i>X</i> Field Turb.	
Temperature Upon Receipt: <i>3.7</i>	Corrected Temperature	IR gun #: <i>2</i>	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2404107

Client: Eagle Environmental Client Project ID: Civitas - Antelope 41-15Hz

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

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

Temp (°C) 3.7 Thermometer # 2

	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"/>	
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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 checked="" type="checkbox"/>	<input 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.

AS
Custodian Printed Name

4/5/24
Date/Time



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

Background-01@4'
2404101-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/05/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.226	2.00	0.00690	mg/L	1	BHD0495	04/16/24	05/25/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/05/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	1.88	0.181	0.153	mg/kg dry	1	BHD0815	04/23/24	04/27/24	EPA 6020B	
Barium	30.8	0.362	0.286	"	"	"	"	"	"	
Cadmium	0.0756	0.181	0.00652	"	"	"	"	"	"	J
Copper	1.81	0.362	0.0189	"	"	"	"	"	"	
Lead	3.10	0.181	0.0498	"	"	"	"	"	"	
Nickel	2.10	0.362	0.0553	"	"	"	"	"	"	
Silver	0.0104	0.0181	0.00242	"	"	"	"	"	"	J
Zinc	8.52	0.362	0.241	"	"	"	"	"	"	
Selenium	ND	0.236	0.159	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/05/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD0565	04/17/24	04/18/24	EPA 7196A	

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

Date Sampled: **04/05/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	54.7	0.0500		mg/L dry	1	BHD0720	04/22/24	05/24/24	EPA 6020B	
Magnesium	8.97	0.0500		"	"	"	"	"	"	
Sodium	3.70	0.0500		"	"	"	"	"	"	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

Background-01@4'
2404101-01 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/05/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	0.122	0.00100		units	1	BHE0798	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/05/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	97.3			%	1	BHD0436	04/15/24	04/15/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/05/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.117	0.0100	0.00100	mmhos/cm	1	BHD0760	04/22/24	04/23/24	EPA 120.1	

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

Date Sampled: **04/05/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.56			pH Units	1	BHD0761	04/22/24	04/23/24	EPA 9045D	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

Background-02@4'
2404101-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/05/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.201	2.00	0.00690	mg/L	1	BHD0495	04/16/24	05/25/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/05/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	1.52	0.200	0.168	mg/kg dry	1	BHD0815	04/23/24	04/27/24	EPA 6020B	
Barium	30.1	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.0751	0.200	0.00720	"	"	"	"	"	"	J
Copper	1.79	0.400	0.0209	"	"	"	"	"	"	
Lead	3.14	0.200	0.0550	"	"	"	"	"	"	
Nickel	2.06	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0101	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	8.59	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/05/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD0565	04/17/24	04/18/24	EPA 7196A	

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

Date Sampled: **04/05/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	43.3	0.0500		mg/L dry	1	BHD0720	04/22/24	05/24/24	EPA 6020B	
Magnesium	7.72	0.0500		"	"	"	"	"	"	
Sodium	3.49	0.0500		"	"	"	"	"	"	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

Background-02@4'
2404101-02 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/05/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	0.128	0.00100		units	1	BHE0798	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/05/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	97.2			%	1	BHD0436	04/15/24	04/15/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/05/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.0707	0.0100	0.00100	mmhos/cm	1	BHD0760	04/22/24	04/23/24	EPA 120.1	

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

Date Sampled: **04/05/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	9.07			pH Units	1	BHD0761	04/22/24	04/23/24	EPA 9045D	

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:40

Background-03@4'
2404101-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/05/24 12:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.146	2.00	0.00690	mg/L	1	BHD0495	04/16/24	05/25/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/05/24 12:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	1.61	0.200	0.168	mg/kg dry	1	BHD0815	04/23/24	04/27/24	EPA 6020B	
Barium	30.3	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.0788	0.200	0.00720	"	"	"	"	"	"	J
Copper	1.85	0.400	0.0209	"	"	"	"	"	"	
Lead	3.12	0.200	0.0550	"	"	"	"	"	"	
Nickel	2.20	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0100	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	8.96	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/05/24 12:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD0565	04/17/24	04/18/24	EPA 7196A	

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

Date Sampled: **04/05/24 12:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	46.5	0.0500		mg/L dry	1	BHD0720	04/22/24	05/24/24	EPA 6020B	
Magnesium	7.88	0.0500		"	"	"	"	"	"	
Sodium	3.67	0.0500		"	"	"	"	"	"	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

Background-03@4'
2404101-03 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/05/24 12:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	0.131	0.00100		units	1	BHE0798	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/05/24 12:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	96.9			%	1	BHD0436	04/15/24	04/15/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/05/24 12:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.00863	0.0100	0.00100	mmhos/cm	1	BHD0760	04/22/24	04/23/24	EPA 120.1	J

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

Date Sampled: **04/05/24 12:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.22			pH Units	1	BHD0761	04/22/24	04/23/24	EPA 9045D	

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:40

Background-04@4'
2404101-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/05/24 12:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.107	2.00	0.00690	mg/L	1	BHD0495	04/16/24	05/25/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/05/24 12:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	1.53	0.200	0.168	mg/kg dry	1	BHD0815	04/23/24	04/27/24	EPA 6020B	
Barium	35.6	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.0781	0.200	0.00720	"	"	"	"	"	"	J
Copper	1.84	0.400	0.0209	"	"	"	"	"	"	
Lead	3.32	0.200	0.0550	"	"	"	"	"	"	
Nickel	2.06	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0103	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	8.76	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/05/24 12:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD0565	04/17/24	04/18/24	EPA 7196A	

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

Date Sampled: **04/05/24 12:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	60.7	0.0500		mg/L dry	1	BHD0720	04/22/24	05/24/24	EPA 6020B	
Magnesium	9.76	0.0500		"	"	"	"	"	"	
Sodium	5.01	0.0500		"	"	"	"	"	"	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

Background-04@4'
2404101-04 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/05/24 12:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	0.157	0.00100		units	1	BHE0798	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/05/24 12:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	96.8			%	1	BHD0436	04/15/24	04/15/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/05/24 12:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.135	0.0100	0.00100	mmhos/cm	1	BHD0760	04/22/24	04/23/24	EPA 120.1	

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

Date Sampled: **04/05/24 12:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.43			pH Units	1	BHD0761	04/22/24	04/23/24	EPA 9045D	

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:40

Background-05@4'
2404101-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/05/24 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.126	2.00	0.00690	mg/L	1	BHD0495	04/16/24	05/25/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/05/24 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	1.55	0.200	0.168	mg/kg dry	1	BHD0815	04/23/24	04/27/24	EPA 6020B	
Barium	30.7	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.0789	0.200	0.00720	"	"	"	"	"	"	J
Copper	1.83	0.400	0.0209	"	"	"	"	"	"	
Lead	3.08	0.200	0.0550	"	"	"	"	"	"	
Nickel	2.06	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0107	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	8.78	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/05/24 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD0565	04/17/24	04/18/24	EPA 7196A	

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

Date Sampled: **04/05/24 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	44.3	0.0500		mg/L dry	1	BHD0720	04/22/24	05/24/24	EPA 6020B	
Magnesium	7.03	0.0500		"	"	"	"	"	"	
Sodium	3.99	0.0500		"	"	"	"	"	"	

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.



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

Background-05@4'
2404101-05 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/05/24 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	0.147	0.00100		units	1	BHE0798	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/05/24 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	97.0			%	1	BHD0436	04/15/24	04/15/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/05/24 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.116	0.0100	0.00100	mmhos/cm	1	BHD0760	04/22/24	04/23/24	EPA 120.1	

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

Date Sampled: **04/05/24 12:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.36			pH Units	1	BHD0761	04/22/24	04/23/24	EPA 9045D	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

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 BHD0495 - EPA 3050B

Blank (BHD0495-BLK1)

Prepared: 04/16/24 Analyzed: 05/25/24

Boron ND 2.00 mg/L

LCS (BHD0495-BS1)

Prepared: 04/16/24 Analyzed: 05/25/24

Boron 4.74 2.00 mg/L 5.00 94.7 80-120

Duplicate (BHD0495-DUP1)

Source: 2404101-01

Prepared: 04/16/24 Analyzed: 05/25/24

Boron 0.154 2.00 mg/L 0.226 37.9 20 QR-01, J

Matrix Spike (BHD0495-MS1)

Source: 2404101-01

Prepared: 04/16/24 Analyzed: 05/25/24

Boron 4.89 2.00 mg/L 4.98 0.226 93.8 75-125

Matrix Spike Dup (BHD0495-MSD1)

Source: 2404101-01

Prepared: 04/16/24 Analyzed: 05/25/24

Boron 5.09 2.00 mg/L 4.98 0.226 97.7 75-125 3.91 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.



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

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 BHD0815 - EPA 3050B

Blank (BHD0815-BLK1)

Prepared: 04/23/24 Analyzed: 04/27/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHD0815-BS1)

Prepared: 04/23/24 Analyzed: 04/27/24

Arsenic	37.1	0.200	mg/kg wet	40.0		92.6	80-120
Barium	38.8	0.400	"	40.0		97.1	80-120
Cadmium	1.86	0.200	"	2.00		93.2	80-120
Copper	42.2	0.400	"	40.0		106	80-120
Lead	18.8	0.200	"	20.0		93.9	80-120
Nickel	41.3	0.400	"	40.0		103	80-120
Silver	1.91	0.0200	"	2.00		95.7	80-120
Zinc	40.6	0.400	"	40.0		102	80-120
Selenium	3.90	0.260	"	4.00		97.4	80-120

Duplicate (BHD0815-DUP1)

Source: 2404089-01

Prepared: 04/23/24 Analyzed: 04/27/24

Arsenic	3.29	0.200	mg/kg dry	3.70		11.7	20
Barium	95.9	0.400	"	117		19.6	20
Cadmium	0.310	0.200	"	0.356		13.8	20
Copper	7.39	0.400	"	7.93		7.02	20
Lead	38.3	0.200	"	37.5		1.95	20
Nickel	6.83	0.400	"	8.24		18.7	20
Silver	0.0398	0.0200	"	0.0375		6.14	20
Zinc	36.5	0.400	"	38.6		5.51	20
Selenium	ND	0.260	"	ND			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.



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

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 BHD0815 - EPA 3050B

Matrix Spike (BHD0815-MS1)

Source: 2404089-01

Prepared: 04/23/24 Analyzed: 04/27/24

Arsenic	43.7	0.200	mg/kg dry	43.0	3.70	93.0	75-125			
Barium	131	0.400	"	43.0	117	33.9	75-125			QM-07
Cadmium	2.49	0.200	"	2.15	0.356	99.1	75-125			
Copper	37.1	0.400	"	43.0	7.93	67.7	75-125			QM-05
Lead	68.7	0.200	"	21.5	37.5	145	75-125			QM-07
Nickel	40.2	0.400	"	43.0	8.24	74.3	75-125			QM-05
Silver	2.08	0.0200	"	2.15	0.0375	94.9	75-125			
Zinc	88.4	0.400	"	43.0	38.6	116	75-125			
Selenium	3.41	0.260	"	4.30	ND	79.3	75-125			

Matrix Spike Dup (BHD0815-MSD1)

Source: 2404089-01

Prepared: 04/23/24 Analyzed: 04/27/24

Arsenic	43.3	0.200	mg/kg dry	43.0	3.70	92.1	75-125	0.947	25	
Barium	131	0.400	"	43.0	117	33.1	75-125	0.242	25	QM-07
Cadmium	2.48	0.200	"	2.15	0.356	98.6	75-125	0.433	25	
Copper	36.6	0.400	"	43.0	7.93	66.7	75-125	1.20	25	QM-05
Lead	68.6	0.200	"	21.5	37.5	145	75-125	0.130	25	QM-07
Nickel	39.5	0.400	"	43.0	8.24	72.7	75-125	1.72	25	QM-05
Silver	2.06	0.0200	"	2.15	0.0375	93.8	75-125	1.10	25	
Zinc	87.3	0.400	"	43.0	38.6	113	75-125	1.14	25	
Selenium	3.48	0.260	"	4.30	ND	80.9	75-125	2.06	25	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

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 BHD0565 - 3060A Mod

Blank (BHD0565-BLK1)

Prepared: 04/17/24 Analyzed: 04/18/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHD0565-BS1)

Prepared: 04/17/24 Analyzed: 04/18/24

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

Duplicate (BHD0565-DUP1)

Source: 2404100-01

Prepared: 04/17/24 Analyzed: 04/18/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHD0565-MS1)

Source: 2404100-01

Prepared: 04/17/24 Analyzed: 04/18/24

Chromium, Hexavalent 25.5 0.30 mg/kg dry 26.7 ND 95.4 75-125

Matrix Spike Dup (BHD0565-MSD1)

Source: 2404100-01

Prepared: 04/17/24 Analyzed: 04/18/24

Chromium, Hexavalent 25.5 0.30 mg/kg dry 26.7 ND 95.2 75-125 0.210 20

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

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 BHD0720 - General Preparation

Blank (BHD0720-BLK1)

Prepared: 04/22/24 Analyzed: 05/24/24

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

LCS (BHD0720-BS1)

Prepared: 04/22/24 Analyzed: 05/24/24

Calcium	5.69	0.0500	mg/L wet	5.00	114	70-130				
Magnesium	5.20	0.0500	"	5.00	104	70-130				
Sodium	5.18	0.0500	"	5.00	104	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.



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

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 BHD0436 - General Preparation

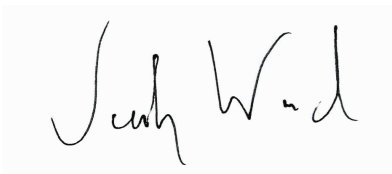
Duplicate (BHD0436-DUP1)

Source: 2404092-01

Prepared & Analyzed: 04/15/24

% Solids	92.8		%		93.0			0.173	20	
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Summit Scientific



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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

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 BHD0760 - General Preparation

Blank (BHD0760-BLK1)

Prepared: 04/22/24 Analyzed: 04/23/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHD0760-BS1)

Prepared: 04/22/24 Analyzed: 04/23/24

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

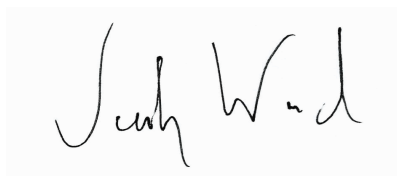
Duplicate (BHD0760-DUP1)

Source: 2404101-01

Prepared: 04/22/24 Analyzed: 04/23/24

Specific Conductance (EC) 0.116 0.0100 mmhos/cm 0.117 0.858 20

Summit Scientific



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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:40

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 BHD0761 - General Preparation

LCS (BHD0761-BS1)

Prepared: 04/22/24 Analyzed: 04/23/24

pH	9.11	pH Units	9.18	99.2	95-105
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Duplicate (BHD0761-DUP1)

Source: 2404101-01

Prepared: 04/22/24 Analyzed: 04/23/24

pH	8.57	pH Units	8.56	0.117	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.



Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:40

Notes and Definitions

- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- 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.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration
- 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

June 11, 2024

Andrew Newberry

Eagle Environmental Consulting

8000 W 44th Ave

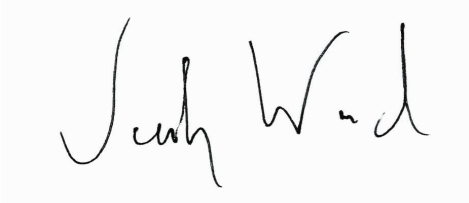
Wheat Ridge, CO 80033

RE: Civitas - Antelope 41-15HZ

Work Order # 2404102

Enclosed are the results of analyses for samples received by Summit Scientific on 04/05/24 16:28. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a distinct "W".

Jacob Wood For Paul Shrewsbury

President



Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH-FS-01@6'	2404102-01	Soil	04/05/24 12:43	04/05/24 16:28

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	Page 1 of 1
2404102	

Client: <i>Eagle Environmental Consulting</i>	Send Data To: Project Manager: <i>Andrew Newberry</i>	Send Invoice To: Company: <i>Civitas</i>
Address: <i>8000 W 44th Ave</i>	E-Mail: <i>anewberry@eagle-env.com</i>	Project Name/Location: <i>State Antelope 41-15H2</i>
City/State/Zip: <i>Wheat Ridge, CO 80033</i>		AFE#:
Phone: <i>303-433-2479</i>	Project Name: <i>State Antelope 41-15H2</i>	PO/Billing Codes:
Sampler Name: <i>EL/7M</i>	Project Number: <i>—</i>	Contact: <i>Jacob</i>

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions			
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Gr. BTEX, Unph, TPHs - 82400.D	PAHs - 82400.D	EC - 9050A	SAR - 2015	pH - 9045D	Arsen - DTPH sorbent		915-metals (620) + CCLV (716A)		
1	<i>WH-E3-d@10'</i>	<i>4/5/24</i>	<i>1243</i>	<i>2</i>			<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
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Relinquished by: <i>[Signature]</i>	Date/Time: <i>4/5/24 10:24</i>	Received by: <i>[Signature]</i>	Date/Time: <i>4/5/24 16:28</i>	TAT Business Days	Field DO	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: <i>7.5</i>	Corrected Temperature	IR gun #: <i>2</i>	HNO3 lot #:	Standard	<input checked="" type="checkbox"/> Field Turb.	

S₂

Sample Receipt Checklist

S2 Work Order# 2404102

Client: Eagle civihs Client Project ID: Antelope 41-1542

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

[X] [] [] [] []

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

Temp (°C) 7.5 Thermometer # 2

Table with 5 columns: Question, Yes, No, N/A, Comments (if any). Rows include: If samples require cooling, is the temperature < 6°C? (1), If custody seals are present, are they intact? (1), Are samples due within 48 hours present?, Are water samples with short hold times present?, Is a chain-of-custody (COC) form present and filled out Completely? (1), Is the COC properly relinquished by the client w/ date and time recorded? (1), Were all samples received intact? (1), Was adequate sample volume provided? (1), Does the COC agree with the number and type of sample bottles received? (1), Do the sample IDs on the bottle labels match the COC? (1), For volatiles in water - is there headspace present? If yes, contact client and note in narrative., Are samples preserved that require preservation (excluding cooling)? (1) Note the type of preservative in the comments column - HCl, H2SO4, NaOH, HNO3, etc., If samples are acid preserved for metals, is the pH <= 2? (1) Record the pH in Comments., If dissolved metals are requested, were samples field filtered?

Additional Comments (if any):

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

Wh W. d Custodian Printed Name

4/5/24 16:28 Date/Time



Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:48

WH-FS-01@6'
2404102-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/05/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BHD0224	04/08/24	04/10/24	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: **04/05/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		82.7 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		107 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/05/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	18	50	4.3	mg/kg	1	BHD0228	04/08/24	04/09/24	EPA 8015M	J
C28-C36 (ORO)	9.4	50	4.3	"	"	"	"	"	"	J

Date Sampled: **04/05/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		72.2 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:48

WH-FS-01@6'
2404102-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/05/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BHD0264	04/09/24	04/10/24	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: **04/05/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		83.5 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		58.0 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/05/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.133	2.00	0.00690	mg/L	1	BHD0495	04/16/24	05/25/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/05/24 12:43**

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

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

WH-FS-01@6'
2404102-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.63	0.200	0.168	mg/kg dry	1	BHD0814	04/23/24	05/08/24	EPA 6020B	
Barium	70.2	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.107	0.200	0.00720	"	"	"	"	"	"	J
Copper	2.68	0.400	0.0209	"	"	"	"	"	"	
Lead	3.80	0.200	0.0550	"	"	"	"	"	"	
Nickel	2.28	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0128	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	9.98	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 04/05/24 12:43

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD0518	04/16/24	04/17/24	EPA 7196A	

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

Date Sampled: 04/05/24 12:43

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	294	0.0500		mg/L dry	1	BHD0771	04/22/24	05/11/24	EPA 6020B	
Magnesium	19.9	0.0500		"	"	"	"	"	"	
Sodium	41.2	0.0500		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 04/05/24 12:43

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.628	0.00100		units	1	BHE0398	05/13/24	05/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

WH-FS-01@6'
2404102-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/05/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	94.2			%	1	BHD0436	04/15/24	04/15/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/05/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.219	0.0100	0.00100	mmhos/cm	1	BHD0772	04/22/24	04/24/24	EPA 120.1	

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

Date Sampled: **04/05/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	9.43			pH Units	1	BHD0773	04/22/24	04/24/24	EPA 9045D	

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8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:48

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 BHD0224 - EPA 5030 Soil MS

Blank (BHD0224-BLK1)

Prepared: 04/08/24 Analyzed: 04/09/24

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	0.0344		"	0.0400		86.0	50-150			
Surrogate: Toluene-d8	0.0430		"	0.0400		108	50-150			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.8	50-150			

LCS (BHD0224-BS1)

Prepared: 04/08/24 Analyzed: 04/09/24

Benzene	0.106	0.0020	mg/kg	0.100		106	70-130			
Toluene	0.108	0.0050	"	0.100		108	70-130			
Ethylbenzene	0.107	0.0050	"	0.100		107	70-130			
m,p-Xylene	0.215	0.010	"	0.200		107	70-130			
o-Xylene	0.111	0.0050	"	0.100		111	70-130			
1,2,4-Trimethylbenzene	0.103	0.0050	"	0.100		103	70-130			
1,3,5-Trimethylbenzene	0.106	0.0050	"	0.100		106	70-130			
Naphthalene	0.0837	0.0038	"	0.100		83.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0344		"	0.0400		85.9	50-150			
Surrogate: Toluene-d8	0.0419		"	0.0400		105	50-150			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	50-150			

Matrix Spike (BHD0224-MS1)

Source: 2404090-01

Prepared: 04/08/24 Analyzed: 04/09/24

Benzene	0.109	0.0020	mg/kg	0.100	0.0150	93.9	70-130			
Toluene	0.0770	0.0050	"	0.100	ND	77.0	70-130			
Ethylbenzene	0.147	0.0050	"	0.100	0.0188	129	70-130			
m,p-Xylene	0.287	0.010	"	0.200	0.0856	101	70-130			
o-Xylene	0.112	0.0050	"	0.100	0.0248	87.4	70-130			
1,2,4-Trimethylbenzene	0.124	0.0050	"	0.100	0.0226	101	70-130			
1,3,5-Trimethylbenzene	0.151	0.0050	"	0.100	0.0384	113	70-130			
Naphthalene	0.104	0.0038	"	0.100	ND	104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0375		"	0.0400		93.7	50-150			
Surrogate: Toluene-d8	0.0411		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0656		"	0.0400		164	50-150			

S-02

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

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 BHD0224 - EPA 5030 Soil MS

Matrix Spike Dup (BHD0224-MSD1)	Source: 2404090-01			Prepared: 04/08/24 Analyzed: 04/09/24						
Benzene	0.0938	0.0020	mg/kg	0.100	0.0150	78.7	70-130	15.0	30	
Toluene	0.0897	0.0050	"	0.100	ND	89.7	70-130	15.3	30	
Ethylbenzene	0.146	0.0050	"	0.100	0.0188	127	70-130	0.879	30	
m,p-Xylene	0.320	0.010	"	0.200	0.0856	117	70-130	10.7	30	
o-Xylene	0.101	0.0050	"	0.100	0.0248	76.4	70-130	10.4	30	
1,2,4-Trimethylbenzene	0.182	0.0050	"	0.100	0.0226	160	70-130	38.2	30	QM-01
1,3,5-Trimethylbenzene	0.238	0.0050	"	0.100	0.0384	199	70-130	44.6	30	QM-01
Naphthalene	0.0936	0.0038	"	0.100	ND	93.6	70-130	10.8	30	
Surrogate: 1,2-Dichloroethane-d4	0.0383		"	0.0400		95.8	50-150			
Surrogate: Toluene-d8	0.0347		"	0.0400		86.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0898		"	0.0400		225	50-150			S-02

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHD0228 - EPA 3550A

Blank (BHD0228-BLK1)

Prepared & Analyzed: 04/08/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	12.3		"	12.5		98.7		30-150		

LCS (BHD0228-BS1)

Prepared & Analyzed: 04/08/24

C10-C28 (DRO)	435	50	mg/kg	500		87.0		70-130		
Surrogate: <i>o</i> -Terphenyl	10.3		"	12.5		82.3		30-150		

Matrix Spike (BHD0228-MS1)

Source: 2404090-01

Prepared & Analyzed: 04/08/24

C10-C28 (DRO)	435	50	mg/kg	500	18.6	83.2		70-130		
Surrogate: <i>o</i> -Terphenyl	9.01		"	12.5		72.1		30-150		

Matrix Spike Dup (BHD0228-MSD1)

Source: 2404090-01

Prepared & Analyzed: 04/08/24

C10-C28 (DRO)	378	50	mg/kg	500	18.6	71.8		70-130	14.0	20
Surrogate: <i>o</i> -Terphenyl	7.33		"	12.5		58.6		30-150		

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Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:48

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 BHD0264 - EPA 5030 Soil MS

Blank (BHD0264-BLK1)

Prepared & Analyzed: 04/09/24

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	0.0249		"	0.0333		74.6	40-150			
Surrogate: Fluoranthene-d10	0.0278		"	0.0333		83.4	40-150			

LCS (BHD0264-BS1)

Prepared & Analyzed: 04/09/24

Acenaphthene	0.0289	0.00500	mg/kg	0.0333		86.6	31-137			
Anthracene	0.0270	0.00500	"	0.0333		81.1	30-120			
Benzo (a) anthracene	0.0264	0.00500	"	0.0333		79.3	30-120			
Benzo (a) pyrene	0.0248	0.00500	"	0.0333		74.4	30-120			
Benzo (b) fluoranthene	0.0242	0.00500	"	0.0333		72.7	30-120			
Benzo (k) fluoranthene	0.0292	0.00500	"	0.0333		87.7	30-120			
Chrysene	0.0300	0.00500	"	0.0333		89.9	30-120			
Dibenz (a,h) anthracene	0.0217	0.00500	"	0.0333		65.2	30-120			
Fluoranthene	0.0274	0.00500	"	0.0333		82.3	30-120			
Fluorene	0.0284	0.00500	"	0.0333		85.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0219	0.00500	"	0.0333		65.7	30-120			
Pyrene	0.0316	0.00500	"	0.0333		94.8	35-142			
1-Methylnaphthalene	0.0344	0.00500	"	0.0333		103	35-142			
2-Methylnaphthalene	0.0324	0.00500	"	0.0333		97.1	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0369		"	0.0333		111	40-150			
Surrogate: Fluoranthene-d10	0.0282		"	0.0333		84.7	40-150			

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8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:48

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 BHD0264 - EPA 5030 Soil MS

Matrix Spike (BHD0264-MS1)	Source: 2404070-01			Prepared & Analyzed: 04/09/24								
Acenaphthene	0.0168	0.00500	mg/kg	0.0333	ND	50.5	31-137					
Anthracene	0.0176	0.00500	"	0.0333	ND	52.7	30-120					
Benzo (a) anthracene	0.0157	0.00500	"	0.0333	ND	47.1	30-120					
Benzo (a) pyrene	0.0171	0.00500	"	0.0333	ND	51.3	30-120					
Benzo (b) fluoranthene	0.0164	0.00500	"	0.0333	ND	49.1	30-120					
Benzo (k) fluoranthene	0.0161	0.00500	"	0.0333	ND	48.3	30-120					
Chrysene	0.0151	0.00500	"	0.0333	ND	45.2	30-120					
Dibenz (a,h) anthracene	0.0181	0.00500	"	0.0333	ND	54.4	30-120					
Fluoranthene	0.0219	0.00500	"	0.0333	ND	65.8	30-120					
Fluorene	0.0173	0.00500	"	0.0333	ND	51.9	30-120					
Indeno (1,2,3-cd) pyrene	0.0182	0.00500	"	0.0333	ND	54.4	30-120					
Pyrene	0.0192	0.00500	"	0.0333	ND	57.6	35-142					
1-Methylnaphthalene	0.0169	0.00500	"	0.0333	ND	50.8	15-130					
2-Methylnaphthalene	0.0182	0.00500	"	0.0333	ND	54.6	15-130					
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0158</i>		<i>"</i>	<i>0.0333</i>		<i>47.3</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0158</i>		<i>"</i>	<i>0.0333</i>		<i>47.4</i>	<i>40-150</i>					

Matrix Spike Dup (BHD0264-MSD1)	Source: 2404070-01			Prepared & Analyzed: 04/09/24								
Acenaphthene	0.0176	0.00500	mg/kg	0.0333	ND	52.7	31-137	4.33	30			
Anthracene	0.0181	0.00500	"	0.0333	ND	54.3	30-120	2.95	30			
Benzo (a) anthracene	0.0200	0.00500	"	0.0333	ND	60.1	30-120	24.4	30			
Benzo (a) pyrene	0.0172	0.00500	"	0.0333	ND	51.5	30-120	0.440	30			
Benzo (b) fluoranthene	0.0170	0.00500	"	0.0333	ND	51.1	30-120	4.08	30			
Benzo (k) fluoranthene	0.0160	0.00500	"	0.0333	ND	48.2	30-120	0.259	30			
Chrysene	0.0189	0.00500	"	0.0333	ND	56.7	30-120	22.5	30			
Dibenz (a,h) anthracene	0.0187	0.00500	"	0.0333	ND	56.0	30-120	2.87	30			
Fluoranthene	0.0214	0.00500	"	0.0333	ND	64.3	30-120	2.30	30			
Fluorene	0.0181	0.00500	"	0.0333	ND	54.2	30-120	4.32	30			
Indeno (1,2,3-cd) pyrene	0.0187	0.00500	"	0.0333	ND	56.1	30-120	2.94	30			
Pyrene	0.0224	0.00500	"	0.0333	ND	67.1	35-142	15.2	30			
1-Methylnaphthalene	0.0249	0.00500	"	0.0333	ND	74.6	15-130	38.0	50			
2-Methylnaphthalene	0.0274	0.00500	"	0.0333	ND	82.1	15-130	40.2	50			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0266</i>		<i>"</i>	<i>0.0333</i>		<i>79.7</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0176</i>		<i>"</i>	<i>0.0333</i>		<i>52.7</i>	<i>40-150</i>					

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

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

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

Batch BHD0495 - EPA 3050B

Blank (BHD0495-BLK1)

Prepared: 04/16/24 Analyzed: 05/25/24

Boron ND 2.00 mg/L

LCS (BHD0495-BS1)

Prepared: 04/16/24 Analyzed: 05/25/24

Boron 4.74 2.00 mg/L 5.00 94.7 80-120

Duplicate (BHD0495-DUP1)

Source: 2404101-01

Prepared: 04/16/24 Analyzed: 05/25/24

Boron 0.154 2.00 mg/L 0.226 37.9 20 QR-01, J

Matrix Spike (BHD0495-MS1)

Source: 2404101-01

Prepared: 04/16/24 Analyzed: 05/25/24

Boron 4.89 2.00 mg/L 4.98 0.226 93.8 75-125

Matrix Spike Dup (BHD0495-MSD1)

Source: 2404101-01

Prepared: 04/16/24 Analyzed: 05/25/24

Boron 5.09 2.00 mg/L 4.98 0.226 97.7 75-125 3.91 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.



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

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 BHD0814 - EPA 3050B

Blank (BHD0814-BLK1)

Prepared: 04/23/24 Analyzed: 05/07/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHD0814-BS1)

Prepared: 04/23/24 Analyzed: 05/07/24

Arsenic	38.6	0.200	mg/kg wet	40.0		96.5	80-120
Barium	38.6	0.400	"	40.0		96.4	80-120
Cadmium	1.97	0.200	"	2.00		98.6	80-120
Copper	40.9	0.400	"	40.0		102	80-120
Lead	18.9	0.200	"	20.0		94.6	80-120
Nickel	40.1	0.400	"	40.0		100	80-120
Silver	1.95	0.0200	"	2.00		97.6	80-120
Zinc	41.1	0.400	"	40.0		103	80-120
Selenium	4.12	0.260	"	4.00		103	80-120

Duplicate (BHD0814-DUP1)

Source: 2404090-01

Prepared: 04/23/24 Analyzed: 05/07/24

Arsenic	3.36	0.200	mg/kg dry	3.25		3.54	20
Barium	148	0.400	"	111		27.9	20
Cadmium	0.312	0.200	"	0.348		10.7	20
Copper	7.36	0.400	"	7.74		4.96	20
Lead	9.56	0.200	"	10.4		8.13	20
Nickel	6.13	0.400	"	5.88		4.25	20
Silver	0.0419	0.0200	"	0.0465		10.6	20
Zinc	24.5	0.400	"	23.7		3.30	20
Selenium	ND	0.260	"	ND			20

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

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 BHD0814 - EPA 3050B

Matrix Spike (BHD0814-MS1)

Source: 2404090-01

Prepared: 04/23/24 Analyzed: 05/07/24

Arsenic	49.3	0.200	mg/kg dry	46.9	3.25	98.2	75-125			
Barium	178	0.400	"	46.9	111	142	75-125			QM-07
Cadmium	2.81	0.200	"	2.34	0.348	105	75-125			
Copper	32.5	0.400	"	46.9	7.74	52.8	75-125			QM-07
Lead	33.2	0.200	"	23.4	10.4	97.3	75-125			
Nickel	31.1	0.400	"	46.9	5.88	53.8	75-125			QM-07
Silver	2.36	0.0200	"	2.34	0.0465	98.5	75-125			
Zinc	50.2	0.400	"	46.9	23.7	56.6	75-125			QM-07
Selenium	4.69	0.260	"	4.69	ND	100	75-125			

Matrix Spike Dup (BHD0814-MSD1)

Source: 2404090-01

Prepared: 04/23/24 Analyzed: 05/07/24

Arsenic	49.1	0.200	mg/kg dry	46.9	3.25	97.8	75-125	0.439	25	
Barium	178	0.400	"	46.9	111	142	75-125	0.0813	25	QM-07
Cadmium	2.82	0.200	"	2.34	0.348	105	75-125	0.317	25	
Copper	32.4	0.400	"	46.9	7.74	52.6	75-125	0.191	25	QM-07
Lead	33.1	0.200	"	23.4	10.4	96.9	75-125	0.293	25	
Nickel	31.2	0.400	"	46.9	5.88	54.0	75-125	0.340	25	QM-07
Silver	2.30	0.0200	"	2.34	0.0465	96.4	75-125	2.19	25	
Zinc	49.8	0.400	"	46.9	23.7	55.8	75-125	0.728	25	QM-07
Selenium	4.40	0.260	"	4.69	ND	94.0	75-125	6.39	25	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

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 BHD0518 - 3060A Mod

Blank (BHD0518-BLK1)

Prepared: 04/16/24 Analyzed: 04/17/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHD0518-BS1)

Prepared: 04/16/24 Analyzed: 04/17/24

Chromium, Hexavalent 24.7 0.30 mg/kg wet 25.0 98.8 80-120

Duplicate (BHD0518-DUP1)

Source: 2404080-01

Prepared: 04/16/24 Analyzed: 04/17/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHD0518-MS1)

Source: 2404080-01

Prepared: 04/16/24 Analyzed: 04/17/24

Chromium, Hexavalent 28.0 0.30 mg/kg dry 27.6 ND 102 75-125

Matrix Spike Dup (BHD0518-MSD1)

Source: 2404080-01

Prepared: 04/16/24 Analyzed: 04/17/24

Chromium, Hexavalent 28.2 0.30 mg/kg dry 27.6 ND 102 75-125 0.393 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.



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

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 BHD0771 - General Preparation

Blank (BHD0771-BLK1)

Prepared: 04/22/24 Analyzed: 05/11/24

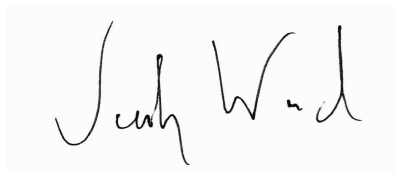
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BHD0771-BS1)

Prepared: 04/22/24 Analyzed: 05/11/24

Calcium	5.33	0.0500	mg/L wet	5.00		107	70-130			
Magnesium	5.21	0.0500	"	5.00		104	70-130			
Sodium	4.76	0.0500	"	5.00		95.3	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.



Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

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 BHD0436 - General Preparation


Duplicate (BHD0436-DUP1)

Source: 2404092-01

Prepared & Analyzed: 04/15/24

% Solids	92.8		%		93.0			0.173	20	
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Summit Scientific



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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

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 BHD0772 - General Preparation

Blank (BHD0772-BLK1)

Prepared: 04/22/24 Analyzed: 04/24/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHD0772-BS1)

Prepared: 04/22/24 Analyzed: 04/24/24

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

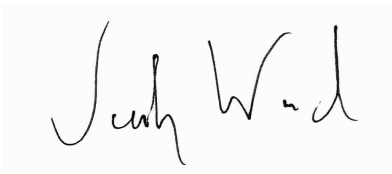
Duplicate (BHD0772-DUP1)

Source: 2404090-01

Prepared: 04/22/24 Analyzed: 04/24/24

Specific Conductance (EC) 0.528 0.0100 mmhos/cm 0.534 1.04 20

Summit Scientific



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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 10:48

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 BHD0773 - General Preparation

LCS (BHD0773-BS1)

Prepared: 04/22/24 Analyzed: 04/24/24

pH	9.09	pH Units	9.18	99.0	95-105
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Duplicate (BHD0773-DUP1)

Source: 2404090-01

Prepared: 04/22/24 Analyzed: 04/24/24

pH	8.28	pH Units	8.33	0.602	20
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Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 10:48

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration
- 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

June 11, 2024

Andrew Newberry

Eagle Environmental Consulting

8000 W 44th Ave

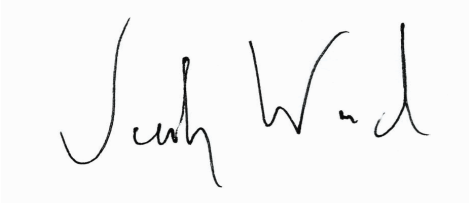
Wheat Ridge, CO 80033

RE: Civitas - State Antelope 41-15HZ

Work Order # 2404430

Enclosed are the results of analyses for samples received by Summit Scientific on 04/26/24 14:39. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a distinct "W".

Jacob Wood For Paul Shrewsbury

President



Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-SS-01@0.5'	2404430-01	Soil	04/26/24 10:50	04/26/24 14:39
TB-SS-02@0.5'	2404430-02	Soil	04/26/24 10:54	04/26/24 14:39
TB-SS-03@0.5'	2404430-03	Soil	04/26/24 10:57	04/26/24 14:39
TB-SS-04@0.5'	2404430-04	Soil	04/26/24 11:02	04/26/24 14:39
TB-SS-05@0.5'	2404430-05	Soil	04/26/24 11:05	04/26/24 14:39
TB-SS-06@4'	2404430-06	Soil	04/26/24 10:40	04/26/24 14:39
TB-SS-07@4'	2404430-07	Soil	04/26/24 10:20	04/26/24 14:39
WV-FS-01@8'	2404430-08	Soil	04/26/24 11:05	04/26/24 14:39
WV-SS-04@7'	2404430-09	Soil	04/26/24 11:25	04/26/24 14:39

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.

Send Data To:		Send Invoice To:	
Client: Eagle Environmental Consulting	Project Manager: Andrew Newberry	Company: Civitas	
Address: 8000 W 44th Ave	E-Mail: On file anewberry@eagle-enviro.com	Project Name/Location:	
City/State/Zip: Wheat Ridge, CO 80033		AFE#:	
Phone: 303-433-0479	Project Name: State Antelope 41-15HZ	PO/Billing Codes:	
Sampler Name: RS/EG	Project Number: _____	Contact: Jacob	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Analysis Requested						Special Instructions
					HCl	HNO3	None	Other	Water	Soil		Other	6.1812X, Neph, Tmb8 - 42600	DIB/AAO - 8015D	PAHs - 4270D 51m	EC - 9050A	SAR - 208	
1	TB-SS-01c 0.5'	4/26/24	1050	2			X					X	X	X	X	X		EC, SAR, pH = saturated paste prep mds needed
2	TB-SS-02c 0.5'	↓	1054	↓														
3	TB-SS-03c 0.5'	↓	1057	↓														
4	TB-SS-04c 0.5'	↓	1102	↓														
5	TB-SS-05c 0.5'	↓	1105	↓														
6	TB-SS-06c 4'	↓	1040	↓														
7	TB-SS-07c 4'	↓	1020	↓														
8	WV-FS-01c 8'	↓	1105	↓														
9	WV-SS-04c 7'	↓	1125	↓														
10																		
11																		
12																		
13																		
14																		
15																		

Relinquished by: <i>[Signature]</i> Date/Time: 4/26/24 1439	Received by: <i>[Signature]</i> Date/Time: 4/26/24 14:39	TAT Business Days	Field DO	Notes:
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: _____	Same Day	Field EC	
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: _____	1 Day	Field ORP	
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: _____	2 Days	Field pH	
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: _____	3 Days	Field Temp.	
Temperature Upon Receipt: 2.4	Corrected Temperature _____	Standard	Field Turb. <input checked="" type="checkbox"/>	
	IR gun #: 2		HNO3 lot #:	

S₂

S2 Work Order# 2404430

Sample Receipt Checklist

Client: Eagle Civ. S Client Project ID: State Antelope 4/15/24

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

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

Temp (°C) 2.4

Thermometer # 2

	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 fire
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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.

Joh W-d

Custodian Printed Name

4/26/24 14:39

Date/Time



Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-01@0.5'
2404430-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BHD1026	04/29/24	04/30/24	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	0.25	0.50		"	"	"	"	"	"	J

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		86.2 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		97.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BHD1027	04/29/24	04/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		76.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-01@0.5'
2404430-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BHD0998	04/28/24	04/29/24	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: **04/26/24 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		48.8 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		62.4 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.369	2.00	0.00690	mg/L	1	BHD1012	04/29/24	06/01/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/26/24 10:50**

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

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-01@0.5'
2404430-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.36	0.200	0.168	mg/kg dry	1	BHD1092	04/30/24	05/29/24	EPA 6020B	
Barium	74.3	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.0936	0.200	0.00720	"	"	"	"	"	"	J
Copper	1.84	0.400	0.0209	"	"	"	"	"	"	
Lead	4.24	0.200	0.0550	"	"	"	"	"	"	
Nickel	2.48	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0122	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	9.53	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD1003	04/29/24	04/30/24	EPA 7196A	

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

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	142	0.0500		mg/L dry	1	BHE0179	05/06/24	06/06/24	EPA 6020B	
Magnesium	5.74	0.0500		"	"	"	"	"	"	
Sodium	0.795	0.0500		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0178	0.00100		units	1	BHF0182	06/07/24	06/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

TB-SS-01@0.5'
2404430-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	93.1			%	1	BHD1056	04/30/24	04/30/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.190	0.0100	0.00100	mmhos/cm	1	BHE0183	05/06/24	05/07/24	EPA 120.1	

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

Date Sampled: **04/26/24 10:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.63			pH Units	1	BHE0181	05/06/24	05/07/24	EPA 9045D	

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-02@0.5'
2404430-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/26/24 10:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BHD1026	04/29/24	04/30/24	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	0.24	0.50		"	"	"	"	"	"	J

Date Sampled: **04/26/24 10:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		83.7 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		94.5 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.3 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/26/24 10:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BHD1027	04/29/24	04/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **04/26/24 10:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		68.9 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-02@0.5'
2404430-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/26/24 10:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BHD0998	04/28/24	04/29/24	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: **04/26/24 10:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		49.2 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.6 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/26/24 10:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.254	2.00	0.00690	mg/L	1	BHD1012	04/29/24	06/01/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/26/24 10:54**

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

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

TB-SS-02@0.5'
2404430-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.25	0.200	0.168	mg/kg dry	1	BHD1092	04/30/24	05/29/24	EPA 6020B	
Barium	101	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.130	0.200	0.00720	"	"	"	"	"	"	J
Copper	2.37	0.400	0.0209	"	"	"	"	"	"	
Lead	5.05	0.200	0.0550	"	"	"	"	"	"	
Nickel	2.88	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0150	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	11.2	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/26/24 10:54**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD1003	04/29/24	04/30/24	EPA 7196A	

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

Date Sampled: **04/26/24 10:54**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	642	0.0500		mg/L dry	1	BHE0179	05/06/24	06/06/24	EPA 6020B	
Magnesium	43.3	0.0500		"	"	"	"	"	"	
Sodium	4.56	0.0500		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/26/24 10:54**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0470	0.00100		units	1	BHF0182	06/07/24	06/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

TB-SS-02@0.5'
2404430-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/26/24 10:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	92.4			%	1	BHD1056	04/30/24	04/30/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/26/24 10:54**

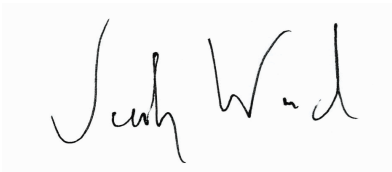
Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.218	0.0100	0.00100	mmhos/cm	1	BHE0183	05/06/24	05/07/24	EPA 120.1	

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

Date Sampled: **04/26/24 10:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.71			pH Units	1	BHE0181	05/06/24	05/07/24	EPA 9045D	

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-03@0.5'
2404430-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BHD1026	04/29/24	04/30/24	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	0.24	0.50		"	"	"	"	"	"	J

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		102 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BHD1027	04/29/24	04/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		74.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-03@0.5'
2404430-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BHD0998	04/28/24	04/29/24	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: **04/26/24 10:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		51.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		75.7 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.146	2.00	0.00690	mg/L	1	BHD1012	04/29/24	06/01/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/26/24 10:57**

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

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-03@0.5'
2404430-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.15	0.200	0.168	mg/kg dry	1	BHD1092	04/30/24	05/29/24	EPA 6020B	
Barium	44.8	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.0796	0.200	0.00720	"	"	"	"	"	"	J
Copper	1.79	0.400	0.0209	"	"	"	"	"	"	
Lead	3.84	0.200	0.0550	"	"	"	"	"	"	
Nickel	2.17	0.400	0.0610	"	"	"	"	"	"	
Silver	0.00922	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	9.74	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD1003	04/29/24	04/30/24	EPA 7196A	

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

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	484	0.0500		mg/L dry	1	BHE0179	05/06/24	06/07/24	EPA 6020B	
Magnesium	37.7	0.0500		"	"	"	"	"	"	
Sodium	1.02	0.0500		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0120	0.00100		units	1	BHF0182	06/07/24	06/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

TB-SS-03@0.5'
2404430-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	94.7			%	1	BHD1056	04/30/24	04/30/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.145	0.0100	0.00100	mmhos/cm	1	BHE0183	05/06/24	05/07/24	EPA 120.1	

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

Date Sampled: **04/26/24 10:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.78			pH Units	1	BHE0181	05/06/24	05/07/24	EPA 9045D	

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

TB-SS-04@0.5'
2404430-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BHD1026	04/29/24	04/30/24	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	0.23	0.50		"	"	"	"	"	"	J

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		83.3 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		96.6 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.1 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BHD1027	04/29/24	04/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		70.6 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-04@0.5'
2404430-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BHD0998	04/28/24	04/29/24	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: **04/26/24 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		45.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.9 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.215	2.00	0.00690	mg/L	1	BHD1012	04/29/24	06/01/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/26/24 11:02**

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

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-04@0.5'
2404430-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.35	0.181	0.153	mg/kg dry	1	BHD1092	04/30/24	05/29/24	EPA 6020B	
Barium	167	0.362	0.286	"	"	"	"	"	"	
Cadmium	0.215	0.181	0.00652	"	"	"	"	"	"	
Copper	3.31	0.362	0.0189	"	"	"	"	"	"	
Lead	7.11	0.181	0.0498	"	"	"	"	"	"	
Nickel	3.62	0.362	0.0553	"	"	"	"	"	"	
Silver	0.0245	0.0181	0.00242	"	"	"	"	"	"	
Zinc	13.9	0.362	0.241	"	"	"	"	"	"	
Selenium	ND	0.236	0.159	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD1003	04/29/24	04/30/24	EPA 7196A	

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

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	464	0.0500		mg/L dry	1	BHE0179	05/06/24	06/07/24	EPA 6020B	
Magnesium	12.8	0.0500		"	"	"	"	"	"	
Sodium	6.00	0.0500		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0750	0.00100		units	1	BHF0182	06/07/24	06/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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 8000 W 44th Ave
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Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

TB-SS-04@0.5'
2404430-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	87.3			%	1	BHD1056	04/30/24	04/30/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.186	0.0100	0.00100	mmhos/cm	1	BHE0183	05/06/24	05/07/24	EPA 120.1	

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

Date Sampled: **04/26/24 11:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.64			pH Units	1	BHE0181	05/06/24	05/07/24	EPA 9045D	

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-05@0.5'
2404430-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BHD1026	04/29/24	04/30/24	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	0.24	0.50		"	"	"	"	"	"	J

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		87.3 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		96.7 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BHD1027	04/29/24	04/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		68.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-05@0.5'
2404430-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BHD0998	04/28/24	04/29/24	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: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		45.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		54.3 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.110	2.00	0.00690	mg/L	1	BHD1012	04/29/24	06/01/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/26/24 11:05**

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

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

TB-SS-05@0.5'
2404430-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.17	0.200	0.168	mg/kg dry	1	BHD1092	04/30/24	05/29/24	EPA 6020B	
Barium	188	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.234	0.200	0.00720	"	"	"	"	"	"	
Copper	3.36	0.400	0.0209	"	"	"	"	"	"	
Lead	7.32	0.200	0.0550	"	"	"	"	"	"	
Nickel	3.45	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0199	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	18.5	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD1003	04/29/24	04/30/24	EPA 7196A	

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

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	349	0.0500		mg/L dry	1	BHE0179	05/06/24	06/07/24	EPA 6020B	
Magnesium	9.18	0.0500		"	"	"	"	"	"	
Sodium	4.95	0.0500		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0714	0.00100		units	1	BHF0182	06/07/24	06/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

TB-SS-05@0.5'
2404430-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	87.1			%	1	BHD1056	04/30/24	04/30/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.216	0.0100	0.00100	mmhos/cm	1	BHE0183	05/06/24	05/07/24	EPA 120.1	

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

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.54			pH Units	1	BHE0181	05/06/24	05/07/24	EPA 9045D	

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-06@4'
2404430-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/26/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BHD1026	04/29/24	04/30/24	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	0.24	0.50		"	"	"	"	"	"	J

Date Sampled: **04/26/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		85.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		95.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.4 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/26/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BHD1027	04/29/24	04/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **04/26/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		89.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-06@4'
2404430-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/26/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BHD0998	04/28/24	04/30/24	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: **04/26/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		46.8 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		70.5 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/26/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0925	2.00	0.00690	mg/L	1	BHD1012	04/29/24	06/01/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/26/24 10:40**

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

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8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-06@4'
2404430-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.15	0.200	0.168	mg/kg dry	1	BHD1092	04/30/24	05/29/24	EPA 6020B	
Barium	53.4	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.0905	0.200	0.00720	"	"	"	"	"	"	J
Copper	2.04	0.400	0.0209	"	"	"	"	"	"	
Lead	4.13	0.200	0.0550	"	"	"	"	"	"	
Nickel	2.58	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0105	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	10.2	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/26/24 10:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD1003	04/29/24	04/30/24	EPA 7196A	

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

Date Sampled: **04/26/24 10:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	61.8	0.0500		mg/L dry	1	BHE0179	05/06/24	06/07/24	EPA 6020B	
Magnesium	4.21	0.0500		"	"	"	"	"	"	
Sodium	3.74	0.0500		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/26/24 10:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.124	0.00100		units	1	BHF0182	06/07/24	06/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

TB-SS-06@4'
2404430-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/26/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	95.0			%	1	BHD1056	04/30/24	04/30/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/26/24 10:40**

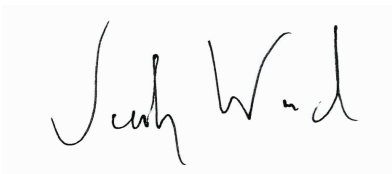
Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.213	0.0100	0.00100	mmhos/cm	1	BHE0183	05/06/24	05/07/24	EPA 120.1	

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

Date Sampled: **04/26/24 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.43			pH Units	1	BHE0181	05/06/24	05/07/24	EPA 9045D	

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8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-07@4'
2404430-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BHD1026	04/29/24	04/30/24	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	0.24	0.50		"	"	"	"	"	"	J

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		94.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		96.1 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BHD1027	04/29/24	04/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		73.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-07@4'
2404430-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BHD0998	04/28/24	04/30/24	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: **04/26/24 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		44.9 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		58.9 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.183	2.00	0.00690	mg/L	1	BHD1012	04/29/24	06/01/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/26/24 10:20**

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

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8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

TB-SS-07@4'
2404430-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.96	0.200	0.168	mg/kg dry	1	BHD1092	04/30/24	05/29/24	EPA 6020B	
Barium	54.8	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.0885	0.200	0.00720	"	"	"	"	"	"	J
Copper	2.01	0.400	0.0209	"	"	"	"	"	"	
Lead	4.47	0.200	0.0550	"	"	"	"	"	"	
Nickel	2.49	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0128	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	10.5	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD1003	04/29/24	04/30/24	EPA 7196A	

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

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1450	0.0500		mg/L dry	1	BHE0179	05/06/24	06/07/24	EPA 6020B	
Magnesium	93.2	0.0500		"	"	"	"	"	"	
Sodium	5.74	0.0500		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0395	0.00100		units	1	BHF0182	06/07/24	06/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

TB-SS-07@4'
2404430-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	92.8			%	1	BHD1056	04/30/24	04/30/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.255	0.0100	0.00100	mmhos/cm	1	BHE0183	05/06/24	05/07/24	EPA 120.1	

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

Date Sampled: **04/26/24 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.67			pH Units	1	BHE0181	05/06/24	05/07/24	EPA 9045D	

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Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

WV-FS-01@8'
2404430-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BHD1026	04/29/24	04/30/24	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	0.24	0.50		"	"	"	"	"	"	J

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		87.2 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		95.3 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BHD1027	04/29/24	04/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		76.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

WV-FS-01@8'
2404430-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BHD0998	04/28/24	04/30/24	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: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		44.4 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		57.9 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0762	2.00	0.00690	mg/L	1	BHD1012	04/29/24	06/01/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/26/24 11:05**

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

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8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

WV-FS-01@8'
2404430-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.93	0.200	0.168	mg/kg dry	1	BHD1092	04/30/24	05/29/24	EPA 6020B	
Barium	52.0	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.0884	0.200	0.00720	"	"	"	"	"	"	J
Copper	1.74	0.400	0.0209	"	"	"	"	"	"	
Lead	4.22	0.200	0.0550	"	"	"	"	"	"	
Nickel	2.86	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0108	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	11.7	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 04/26/24 11:05

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD1003	04/29/24	04/30/24	EPA 7196A	

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

Date Sampled: 04/26/24 11:05

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	505	0.0500		mg/L dry	1	BHE0179	05/06/24	06/07/24	EPA 6020B	
Magnesium	66.0	0.0500		"	"	"	"	"	"	
Sodium	13.5	0.0500		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 04/26/24 11:05

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.150	0.00100		units	1	BHF0182	06/07/24	06/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

WV-FS-01@8'
2404430-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	92.3			%	1	BHD1056	04/30/24	04/30/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.187	0.0100	0.00100	mmhos/cm	1	BHE0183	05/06/24	05/07/24	EPA 120.1	

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

Date Sampled: **04/26/24 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.91			pH Units	1	BHE0181	05/06/24	05/07/24	EPA 9045D	

Summit Scientific

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8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

WV-SS-04@7'
2404430-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020	0.000098	mg/kg	1	BHD1026	04/29/24	04/30/24	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	0.25	0.50		"	"	"	"	"	"	J

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		91.9 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		95.2 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50	4.3	mg/kg	1	BHD1027	04/29/24	04/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50	4.3	"	"	"	"	"	"	

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		81.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PAH by EPA Method 8270D SIM

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500	0.000620	mg/kg	1	BHD0998	04/28/24	04/30/24	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: **04/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		48.0 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		59.6 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.143	2.00	0.00690	mg/L	1	BHD1012	04/29/24	06/01/24	EPA 6020B	J

Total Metals by EPA 6020B

Date Sampled: **04/26/24 11:25**

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

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Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.10	0.200	0.168	mg/kg dry	1	BHD1092	04/30/24	05/29/24	EPA 6020B	
Barium	151	0.400	0.316	"	"	"	"	"	"	
Cadmium	0.0938	0.200	0.00720	"	"	"	"	"	"	J
Copper	2.15	0.400	0.0209	"	"	"	"	"	"	
Lead	4.83	0.200	0.0550	"	"	"	"	"	"	
Nickel	3.33	0.400	0.0610	"	"	"	"	"	"	
Silver	0.0102	0.0200	0.00267	"	"	"	"	"	"	J
Zinc	13.3	0.400	0.266	"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	0.040	mg/kg dry	1	BHD1003	04/29/24	04/30/24	EPA 7196A	

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

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	66.9	0.0500		mg/L dry	1	BHE0179	05/06/24	06/07/24	EPA 6020B	
Magnesium	5.93	0.0500		"	"	"	"	"	"	
Sodium	13.8	0.0500		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.434	0.00100		units	1	BHF0182	06/07/24	06/07/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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2404430-09 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	92.1			%	1	BHD1056	04/30/24	04/30/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.256	0.0100	0.00100	mmhos/cm	1	BHE0183	05/06/24	05/07/24	EPA 120.1	

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

Date Sampled: **04/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.60			pH Units	1	BHE0181	05/06/24	05/07/24	EPA 9045D	

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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 BHD1026 - EPA 5030 Soil MS

Blank (BHD1026-BLK1)

Prepared: 04/29/24 Analyzed: 04/30/24

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	0.0366		"	0.0400		91.6	50-150			
Surrogate: Toluene-d8	0.0390		"	0.0400		97.6	50-150			
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0400		95.8	50-150			

LCS (BHD1026-BS1)

Prepared: 04/29/24 Analyzed: 04/30/24

Benzene	0.108	0.0020	mg/kg	0.100		108	70-130			
Toluene	0.103	0.0050	"	0.100		103	70-130			
Ethylbenzene	0.107	0.0050	"	0.100		107	70-130			
m,p-Xylene	0.224	0.010	"	0.200		112	70-130			
o-Xylene	0.110	0.0050	"	0.100		110	70-130			
1,2,4-Trimethylbenzene	0.103	0.0050	"	0.100		103	70-130			
1,3,5-Trimethylbenzene	0.105	0.0050	"	0.100		105	70-130			
Naphthalene	0.0879	0.0038	"	0.100		87.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0308		"	0.0400		76.9	50-150			
Surrogate: Toluene-d8	0.0379		"	0.0400		94.6	50-150			
Surrogate: 4-Bromofluorobenzene	0.0385		"	0.0400		96.2	50-150			

Matrix Spike (BHD1026-MS1)

Source: 2404425-01

Prepared: 04/29/24 Analyzed: 04/30/24

Benzene	0.0866	0.0020	mg/kg	0.100	ND	86.6	70-130			
Toluene	0.0851	0.0050	"	0.100	ND	85.1	70-130			
Ethylbenzene	0.0951	0.0050	"	0.100	ND	95.1	70-130			
m,p-Xylene	0.190	0.010	"	0.200	ND	94.8	70-130			
o-Xylene	0.0992	0.0050	"	0.100	ND	99.2	70-130			
1,2,4-Trimethylbenzene	0.0807	0.0050	"	0.100	ND	80.7	70-130			
1,3,5-Trimethylbenzene	0.0910	0.0050	"	0.100	ND	91.0	70-130			
Naphthalene	0.0697	0.0038	"	0.100	ND	69.7	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0363		"	0.0400		90.7	50-150			
Surrogate: Toluene-d8	0.0386		"	0.0400		96.5	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.1	50-150			

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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		

Batch BHD1026 - EPA 5030 Soil MS

Matrix Spike Dup (BHD1026-MSD1)	Source: 2404425-01			Prepared: 04/29/24 Analyzed: 04/30/24						
Benzene	0.0970	0.0020	mg/kg	0.100	ND	97.0	70-130	11.3	30	
Toluene	0.0963	0.0050	"	0.100	ND	96.3	70-130	12.3	30	
Ethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	10.8	30	
m,p-Xylene	0.208	0.010	"	0.200	ND	104	70-130	9.05	30	
o-Xylene	0.108	0.0050	"	0.100	ND	108	70-130	8.38	30	
1,2,4-Trimethylbenzene	0.0878	0.0050	"	0.100	ND	87.8	70-130	8.47	30	
1,3,5-Trimethylbenzene	0.0987	0.0050	"	0.100	ND	98.7	70-130	8.06	30	
Naphthalene	0.0755	0.0038	"	0.100	ND	75.5	70-130	8.10	30	
Surrogate: 1,2-Dichloroethane-d4	0.0331		"	0.0400		82.8	50-150			
Surrogate: Toluene-d8	0.0386		"	0.0400		96.6	50-150			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		95.9	50-150			

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Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHD1027 - EPA 3550A

Blank (BHD1027-BLK1)

Prepared & Analyzed: 04/29/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	12.5		"	12.5		100		30-150		

LCS (BHD1027-BS1)

Prepared & Analyzed: 04/29/24

C10-C28 (DRO)	458	50	mg/kg	500		91.6		70-130		
Surrogate: <i>o</i> -Terphenyl	11.4		"	12.5		90.9		30-150		

Matrix Spike (BHD1027-MS1)

Source: 2404425-01

Prepared & Analyzed: 04/29/24

C10-C28 (DRO)	427	50	mg/kg	500	ND	85.3		70-130		
Surrogate: <i>o</i> -Terphenyl	9.12		"	12.5		73.0		30-150		

Matrix Spike Dup (BHD1027-MSD1)

Source: 2404425-01

Prepared: 04/29/24 Analyzed: 04/30/24

C10-C28 (DRO)	391	50	mg/kg	500	ND	78.1		70-130	8.86	20
Surrogate: <i>o</i> -Terphenyl	8.43		"	12.5		67.4		30-150		

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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 BHD0998 - EPA 5030 Soil MS

Blank (BHD0998-BLK1)

Prepared: 04/28/24 Analyzed: 04/29/24

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	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0312</i>		"	<i>0.0333</i>		<i>93.6</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0397</i>		"	<i>0.0333</i>		<i>119</i>	<i>40-150</i>			

LCS (BHD0998-BS1)

Prepared: 04/28/24 Analyzed: 04/29/24

Acenaphthene	0.0368	0.00500	mg/kg	0.0333	110	31-137
Anthracene	0.0384	0.00500	"	0.0333	115	30-120
Benzo (a) anthracene	0.0342	0.00500	"	0.0333	102	30-120
Benzo (a) pyrene	0.0311	0.00500	"	0.0333	93.4	30-120
Benzo (b) fluoranthene	0.0351	0.00500	"	0.0333	105	30-120
Benzo (k) fluoranthene	0.0384	0.00500	"	0.0333	115	30-120
Chrysene	0.0384	0.00500	"	0.0333	115	30-120
Dibenz (a,h) anthracene	0.0218	0.00500	"	0.0333	65.5	30-120
Fluoranthene	0.0352	0.00500	"	0.0333	106	30-120
Fluorene	0.0361	0.00500	"	0.0333	108	30-120
Indeno (1,2,3-cd) pyrene	0.0171	0.00500	"	0.0333	51.2	30-120
Pyrene	0.0422	0.00500	"	0.0333	127	35-142
1-Methylnaphthalene	0.0281	0.00500	"	0.0333	84.3	35-142
2-Methylnaphthalene	0.0281	0.00500	"	0.0333	84.4	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0344</i>		"	<i>0.0333</i>	<i>103</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0401</i>		"	<i>0.0333</i>	<i>120</i>	<i>40-150</i>

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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 BHD0998 - EPA 5030 Soil MS

Matrix Spike (BHD0998-MS1)	Source: 2404430-01			Prepared: 04/28/24 Analyzed: 04/29/24								
Acenaphthene	0.0230	0.00500	mg/kg	0.0333	ND	68.9	31-137					
Anthracene	0.0239	0.00500	"	0.0333	ND	71.6	30-120					
Benzo (a) anthracene	0.0238	0.00500	"	0.0333	ND	71.5	30-120					
Benzo (a) pyrene	0.0211	0.00500	"	0.0333	ND	63.4	30-120					
Benzo (b) fluoranthene	0.0218	0.00500	"	0.0333	ND	65.4	30-120					
Benzo (k) fluoranthene	0.0245	0.00500	"	0.0333	ND	73.4	30-120					
Chrysene	0.0250	0.00500	"	0.0333	ND	74.9	30-120					
Dibenz (a,h) anthracene	0.0169	0.00500	"	0.0333	ND	50.7	30-120					
Fluoranthene	0.0232	0.00500	"	0.0333	ND	69.7	30-120					
Fluorene	0.0232	0.00500	"	0.0333	ND	69.7	30-120					
Indeno (1,2,3-cd) pyrene	0.0161	0.00500	"	0.0333	ND	48.4	30-120					
Pyrene	0.0285	0.00500	"	0.0333	ND	85.6	35-142					
1-Methylnaphthalene	0.0174	0.00500	"	0.0333	ND	52.4	15-130					
2-Methylnaphthalene	0.0158	0.00500	"	0.0333	ND	47.4	15-130					
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0195</i>		<i>"</i>	<i>0.0333</i>		<i>58.5</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0270</i>		<i>"</i>	<i>0.0333</i>		<i>80.9</i>	<i>40-150</i>					

Matrix Spike Dup (BHD0998-MSD1)	Source: 2404430-01			Prepared: 04/28/24 Analyzed: 04/29/24								
Acenaphthene	0.0189	0.00500	mg/kg	0.0333	ND	56.8	31-137	19.3	30			
Anthracene	0.0200	0.00500	"	0.0333	ND	59.9	30-120	17.8	30			
Benzo (a) anthracene	0.0192	0.00500	"	0.0333	ND	57.6	30-120	21.6	30			
Benzo (a) pyrene	0.0149	0.00500	"	0.0333	ND	44.7	30-120	34.7	30			QR-02
Benzo (b) fluoranthene	0.0150	0.00500	"	0.0333	ND	44.9	30-120	37.2	30			QR-02
Benzo (k) fluoranthene	0.0172	0.00500	"	0.0333	ND	51.7	30-120	34.8	30			QR-02
Chrysene	0.0203	0.00500	"	0.0333	ND	61.0	30-120	20.4	30			
Dibenz (a,h) anthracene	0.0134	0.00500	"	0.0333	ND	40.1	30-120	23.3	30			
Fluoranthene	0.0189	0.00500	"	0.0333	ND	56.8	30-120	20.3	30			
Fluorene	0.0190	0.00500	"	0.0333	ND	56.9	30-120	20.2	30			
Indeno (1,2,3-cd) pyrene	0.0136	0.00500	"	0.0333	ND	40.8	30-120	17.1	30			
Pyrene	0.0230	0.00500	"	0.0333	ND	68.9	35-142	21.6	30			
1-Methylnaphthalene	0.0202	0.00500	"	0.0333	ND	60.6	15-130	14.6	50			
2-Methylnaphthalene	0.0238	0.00500	"	0.0333	ND	71.3	15-130	40.2	50			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0147</i>		<i>"</i>	<i>0.0333</i>		<i>44.2</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0218</i>		<i>"</i>	<i>0.0333</i>		<i>65.5</i>	<i>40-150</i>					

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

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 BHD1012 - EPA 3050B

Blank (BHD1012-BLK1)		Prepared: 04/29/24 Analyzed: 06/01/24									
Boron	ND	2.00	mg/L								
LCS (BHD1012-BS1)		Prepared: 04/29/24 Analyzed: 06/01/24									
Boron	4.43	2.00	mg/L	5.00	88.6	80-120					
Duplicate (BHD1012-DUP1)		Source: 2404424-01		Prepared: 04/29/24 Analyzed: 06/01/24							
Boron	0.165	2.00	mg/L	0.285			53.5	20			QR-01, J
Matrix Spike (BHD1012-MS1)		Source: 2404424-01		Prepared: 04/29/24 Analyzed: 06/01/24							
Boron	4.70	2.00	mg/L	5.03	0.285	87.7	75-125				
Matrix Spike Dup (BHD1012-MSD1)		Source: 2404424-01		Prepared: 04/29/24 Analyzed: 06/01/24							
Boron	4.80	2.00	mg/L	5.03	0.285	89.7	75-125	2.14	25		

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

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 BHD1092 - EPA 3050B

Blank (BHD1092-BLK1)

Prepared: 04/30/24 Analyzed: 05/29/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHD1092-BS1)

Prepared: 04/30/24 Analyzed: 05/29/24

Arsenic	37.5	0.200	mg/kg wet	40.0		93.6	80-120			
Barium	39.1	0.400	"	40.0		97.7	80-120			
Cadmium	1.88	0.200	"	2.00		94.2	80-120			
Copper	40.5	0.400	"	40.0		101	80-120			
Lead	19.1	0.200	"	20.0		95.7	80-120			
Nickel	40.1	0.400	"	40.0		100	80-120			
Silver	1.91	0.0200	"	2.00		95.3	80-120			
Zinc	39.5	0.400	"	40.0		98.7	80-120			
Selenium	3.66	0.260	"	4.00		91.6	80-120			

Duplicate (BHD1092-DUP1)

Source: 2404430-01

Prepared: 04/30/24 Analyzed: 05/29/24

Arsenic	2.68	0.200	mg/kg dry	2.36				12.8	20	
Barium	86.8	0.400	"	74.3				15.6	20	
Cadmium	0.104	0.200	"	0.0936				10.6	20	J
Copper	2.07	0.400	"	1.84				11.5	20	
Lead	4.51	0.200	"	4.24				6.11	20	
Nickel	2.83	0.400	"	2.48				13.1	20	
Silver	0.0122	0.0200	"	0.0122				0.607	20	J
Zinc	10.9	0.400	"	9.53				13.8	20	
Selenium	ND	0.260	"	ND					20	

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

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 BHD1092 - EPA 3050B

Matrix Spike (BHD1092-MS1)

Source: 2404430-01

Prepared: 04/30/24 Analyzed: 05/29/24

Arsenic	39.1	0.179	mg/kg dry	38.4	2.36	95.7	75-125			
Barium	113	0.357	"	38.4	74.3	102	75-125			
Cadmium	2.06	0.179	"	1.92	0.0936	102	75-125			
Copper	31.1	0.357	"	38.4	1.84	76.3	75-125			
Lead	23.0	0.179	"	19.2	4.24	98.0	75-125			
Nickel	31.8	0.357	"	38.4	2.48	76.4	75-125			
Silver	1.89	0.0179	"	1.92	0.0122	98.1	75-125			
Zinc	39.4	0.357	"	38.4	9.53	77.8	75-125			
Selenium	3.17	0.232	"	3.84	ND	82.7	75-125			

Matrix Spike Dup (BHD1092-MSD1)

Source: 2404430-01

Prepared: 04/30/24 Analyzed: 05/29/24

Arsenic	38.3	0.179	mg/kg dry	38.4	2.36	93.6	75-125	2.07	25	
Barium	111	0.357	"	38.4	74.3	96.6	75-125	1.77	25	
Cadmium	2.04	0.179	"	1.92	0.0936	101	75-125	1.05	25	
Copper	30.4	0.357	"	38.4	1.84	74.3	75-125	2.44	25	QM-07
Lead	22.8	0.179	"	19.2	4.24	96.9	75-125	0.964	25	
Nickel	31.2	0.357	"	38.4	2.48	74.8	75-125	2.01	25	QM-07
Silver	1.88	0.0179	"	1.92	0.0122	97.3	75-125	0.813	25	
Zinc	38.6	0.357	"	38.4	9.53	75.9	75-125	1.88	25	
Selenium	3.04	0.232	"	3.84	ND	79.3	75-125	4.19	25	

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

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 BHD1003 - 3060A Mod

Blank (BHD1003-BLK1)

Prepared: 04/29/24 Analyzed: 04/30/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHD1003-BS1)

Prepared: 04/29/24 Analyzed: 04/30/24

Chromium, Hexavalent 22.4 0.30 mg/kg wet 25.0 89.6 80-120

Duplicate (BHD1003-DUP1)

Source: 2404423-01

Prepared: 04/29/24 Analyzed: 04/30/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHD1003-MS1)

Source: 2404423-01

Prepared: 04/29/24 Analyzed: 04/30/24

Chromium, Hexavalent 25.9 0.30 mg/kg dry 27.2 ND 95.0 75-125

Matrix Spike Dup (BHD1003-MSD1)

Source: 2404423-01

Prepared: 04/29/24 Analyzed: 04/30/24

Chromium, Hexavalent 26.2 0.30 mg/kg dry 27.2 ND 96.0 75-125 1.05 20

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

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 BHE0179 - General Preparation

Blank (BHE0179-BLK1)

Prepared: 05/06/24 Analyzed: 06/06/24

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

LCS (BHE0179-BS1)

Prepared: 05/06/24 Analyzed: 06/06/24

Calcium	5.30	0.0500	mg/L wet	5.00		106	70-130			
Magnesium	5.01	0.0500	"	5.00		100	70-130			
Sodium	5.02	0.0500	"	5.00		100	70-130			

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

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

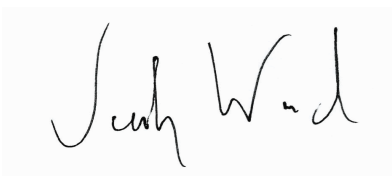
Summit Scientific

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

Batch BHD1056 - General Preparation

Duplicate (BHD1056-DUP1)		Source: 2404430-01			Prepared & Analyzed: 04/30/24			
% Solids	93.2		%		93.1		0.106	20

Summit Scientific



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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

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 BHE0183 - General Preparation

Blank (BHE0183-BLK1)

Prepared: 05/06/24 Analyzed: 05/07/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHE0183-BS1)

Prepared: 05/06/24 Analyzed: 05/07/24

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BHE0183-DUP1)

Source: 2404416-01

Prepared: 05/06/24 Analyzed: 05/07/24

Specific Conductance (EC) 1.03 0.0100 mmhos/cm 1.02 0.293 20

Summit Scientific

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Eagle Environmental Consulting
 8000 W 44th Ave
 Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
 Project Manager: Andrew Newberry

Reported:
 06/11/24 11:43

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 BHE0181 - General Preparation

LCS (BHE0181-BS1)

Prepared: 05/06/24 Analyzed: 05/07/24

pH	9.24	pH Units	9.18	101	95-105
----	------	----------	------	-----	--------

Duplicate (BHE0181-DUP1)

Source: 2404416-01

Prepared: 05/06/24 Analyzed: 05/07/24

pH	8.49	pH Units	8.46	0.354	20
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Summit Scientific

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Eagle Environmental Consulting
8000 W 44th Ave
Wheat Ridge CO, 80033

Project: Civitas - State Antelope 41-15HZ

Project Number: [none]
Project Manager: Andrew Newberry

Reported:
06/11/24 11:43

Notes and Definitions

- 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.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration
- 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

Civitas - CO

Sample Delivery Group: L1748381
Samples Received: 06/19/2024
Project Number:
Description: State Antelope 41-15HZ

Report To: EAGLE / CIVI
6855 W. 118th Ave
Broomfield, CO 80020

Entire Report Reviewed By:



Chris Ward
Project Manager

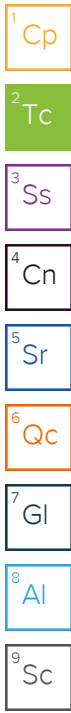
Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory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

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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SAMPLE SUMMARY

TB-SS-01-02@0.5' L1748381-01 Solid

Collected by SL/EG Collected date/time 06/17/24 14:40 Received date/time 06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG2309480	5	06/22/24 09:35	06/25/24 19:12	LD	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

TB-SS-02-02@0.5' L1748381-02 Solid

Collected by SL/EG Collected date/time 06/17/24 14:42 Received date/time 06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG2309480	5	06/22/24 09:35	06/25/24 19:16	LD	Mt. Juliet, TN

4 Cn

5 Sr

TB-SS-04-02@0.5' L1748381-03 Solid

Collected by SL/EG Collected date/time 06/17/24 14:44 Received date/time 06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG2309480	5	06/22/24 09:35	06/25/24 19:19	LD	Mt. Juliet, TN

6 Qc

7 Gl

TB-SS-05-02@0.5' L1748381-04 Solid

Collected by SL/EG Collected date/time 06/17/24 14:46 Received date/time 06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG2309480	5	06/22/24 09:35	06/25/24 19:23	LD	Mt. Juliet, TN

8 Al

9 Sc

WV-SS-04-02@7' L1748381-05 Solid

Collected by SL/EG Collected date/time 06/17/24 13:30 Received date/time 06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG2309480	5	06/22/24 09:35	06/25/24 19:26	LD	Mt. Juliet, TN

WH-FS-01-02@6' L1748381-06 Solid

Collected by SL/EG Collected date/time 06/17/24 13:30 Received date/time 06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2317269	1	07/03/24 19:14	07/03/24 21:15	KRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309482	5	06/22/24 07:52	06/23/24 12:42	SJM	Mt. Juliet, TN

BACKGROUND-06@0.5' L1748381-07 Solid

Collected by SL/EG Collected date/time 06/17/24 13:45 Received date/time 06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2317269	1	07/03/24 19:14	07/03/24 21:15	KRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309480	5	06/22/24 09:35	06/25/24 19:30	LD	Mt. Juliet, TN

BACKGROUND-07@0.5' L1748381-08 Solid

Collected by SL/EG Collected date/time 06/17/24 13:45 Received date/time 06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2317269	1	07/03/24 19:14	07/03/24 21:15	KRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309480	5	06/22/24 09:35	06/25/24 19:34	LD	Mt. Juliet, TN

SAMPLE SUMMARY

BACKGROUND-08@6-7' L1748381-09 Solid

Collected by SL/EG Collected date/time 06/17/24 13:45 Received date/time 06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2317269	1	07/03/24 19:14	07/03/24 21:15	KRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309480	5	06/22/24 09:35	06/25/24 19:37	LD	Mt. Juliet, TN

¹Cp

²Tc

³Ss

BACKGROUND-09@6-7' L1748381-10 Solid

Collected by SL/EG Collected date/time 06/17/24 13:45 Received date/time 06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2317269	1	07/03/24 19:14	07/03/24 21:15	KRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309480	5	06/22/24 09:35	06/25/24 19:41	LD	Mt. Juliet, TN

⁴Cn

⁵Sr

⁶Qc

BACKGROUND-10@6-7' L1748381-11 Solid

Collected by SL/EG Collected date/time 06/17/24 13:45 Received date/time 06/19/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9045D	WG2317269	1	07/03/24 19:14	07/03/24 21:15	KRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG2309480	5	06/22/24 09:35	06/25/24 19:44	LD	Mt. Juliet, TN

⁷Gl

⁸Al

⁹Sc

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Arsenic	2.37		0.100	1.00	5	06/25/2024 19:12	WG2309480

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

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Barium	74.1		0.152	2.50	5	06/25/2024 19:16	WG2309480

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
Barium	112		0.152	2.50	5	06/25/2024 19:19	WG2309480

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

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Barium	119		0.152	2.50	5	06/25/2024 19:23	WG2309480

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	7.01		0.100	1.00	5	06/25/2024 19:26	WG2309480
Barium	101		0.152	2.50	5	06/25/2024 19:26	WG2309480

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.89	<u>T8</u>	1	07/03/2024 21:15	WG2317269

Sample Narrative:

L1748381-06 WG2317269: 7.89 at 23.9C

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.84		0.100	1.00	5	06/23/2024 12:42	WG2309482

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

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.98	<u>T8</u>	1	07/03/2024 21:15	WG2317269

Sample Narrative:

L1748381-07 WG2317269: 7.98 at 23.9C

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.66		0.100	1.00	5	06/25/2024 19:30	WG2309480
Barium	110		0.152	2.50	5	06/25/2024 19:30	WG2309480

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

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.69	<u>T8</u>	1	07/03/2024 21:15	WG2317269

Sample Narrative:

L1748381-08 WG2317269: 7.69 at 24C

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Arsenic	1.93		0.100	1.00	5	06/25/2024 19:34	WG2309480
Barium	69.4		0.152	2.50	5	06/25/2024 19:34	WG2309480

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

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.53	<u>T8</u>	1	07/03/2024 21:15	WG2317269

Sample Narrative:

L1748381-09 WG2317269: 7.53 at 23.7C

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.14		0.100	1.00	5	06/25/2024 19:37	WG2309480
Barium	42.9		0.152	2.50	5	06/25/2024 19:37	WG2309480

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

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.54	<u>T8</u>	1	07/03/2024 21:15	WG2317269

Sample Narrative:

L1748381-10 WG2317269: 7.54 at 23.5C

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.72		0.100	1.00	5	06/25/2024 19:41	WG2309480
Barium	33.8		0.152	2.50	5	06/25/2024 19:41	WG2309480

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

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.35	<u>T8</u>	1	07/03/2024 21:15	WG2317269

Sample Narrative:

L1748381-11 WG2317269: 7.35 at 23.7C

Metals (ICPMS) by Method 6020

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.76		0.100	1.00	5	06/25/2024 19:44	WG2309480
Barium	36.9		0.152	2.50	5	06/25/2024 19:44	WG2309480

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

L1748381-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1748381-10 07/03/24 21:15 • (DUP) R4089995-2 07/03/24 21:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
su	su	su		%		%
pH	7.54	7.55	1	0.133		1

Sample Narrative:

OS: 7.54 at 23.5C
 DUP: 7.55 at 23.8C

L1751770-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1751770-05 07/03/24 21:15 • (DUP) R4089995-3 07/03/24 21:15

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
su	su	su		%		%
pH	6.42	6.38	1	0.625		1

Sample Narrative:

OS: 6.42 at 23.2C
 DUP: 6.38 at 23.3C

Laboratory Control Sample (LCS)

(LCS) R4089995-1 07/03/24 21:15

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
su	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 23.3C



Method Blank (MB)

(MB) R4086384-1 06/25/24 18:28

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50

Laboratory Control Sample (LCS)

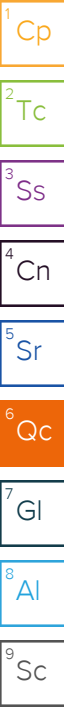
(LCS) R4086384-2 06/25/24 18:32

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
Arsenic	100	108	108	80.0-120	
Barium	100	103	103	80.0-120	

L1748489-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748489-02 06/25/24 18:35 • (MS) R4086384-5 06/25/24 18:46 • (MSD) R4086384-6 06/25/24 18:49

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Arsenic	100	2.72	119	108	116	105	5	75.0-125			9.99	20
Barium	100	121	222	211	101	90.0	5	75.0-125			5.10	20



Method Blank (MB)

(MB) R4085318-1 06/23/24 12:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R4085318-2 06/23/24 12:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	88.5	88.5	80.0-120	

4 Cn

5 Sr

L1748381-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1748381-06 06/23/24 12:42 • (MS) R4085318-5 06/23/24 12:52 • (MSD) R4085318-6 06/23/24 12:55

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	1.84	90.9	79.7	89.1	77.9	5	75.0-125			13.1	20

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

Qualifier	Description
T8	Sample(s) received past/too close to holding time expiration.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

