



Topographic Location  
Map  
"State Antelope 14-21"

State Antelope #14-21-16XRLNB







State Antelope 14-21  
(Location ID: 441376)  
Sample Map



Legend

- Soil Sample - Inorganic/Metal Exceedance
- Soil Sample - Organic Exceedance



**Description:**

State Antelope 14-21 Overview





**Description:**

Spill Location





**Description:**

BKG01@6"





**Description:**

B01@1'





**Description:**

B01@1', N01@6", E01@6" and S01@6"





Latitude: 40.379382  
 Longitude: -104.334931  
 Elevation: 1411.56±2 m  
 Accuracy: 4.5 m  
 Azimuth: 297° (NW)  
 Pitch: -70.2° (-1.6°)  
 Time: 03-21-2022 15:52  
 Note: State Antelope #14-21 S01@6"

Powered by AngleCam

**Description:**

S01@6"





**Description:**

W01@6"





**Description:**

Sample Location Overview





# Laboratory Results Summary Table

## State Antelope 14-21

### Soil - Organics

			Organic Compounds in Soils (mg/kg)							
COGCC Allowable Concentration (Soil) -->			500	1.2/0.0026(M)	490/0.69(M)	5.8/0.78(M)	58/9.9(M)	30/0.0081(R)	27/0.0087(R)	2/0.0038(R)
Location	Sample Date	Sample ID	TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	Benzene	Toluene	Ethylbenzene	Xylenes (sum of o-, m- and p- isomers = total xylenes)	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene
State Antelope 14-21	3/21/2022	B01@1'	1161	1.25	22.2	1.18	21.7	5.32	3.44	0.0782
State Antelope 14-21	3/21/2022	N01@6"	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
State Antelope 14-21	3/21/2022	E01@6"	47.2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.00064
State Antelope 14-21	3/21/2022	S01@6"	261	<0.00200	<0.00200	<0.00200	<0.00200	0.00520	0.00292	0.00272
State Antelope 14-21	3/21/2022	W01@6"	300	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
State Antelope 14-21	3/21/2022	E02@3"	512	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00335

**Legend:**

COGCC - Colorado Oil and Gas Conservation Commission

Orange Highlight - COGCC Table 915-1 TPH, BTEX, organic, metal exceedance

Yellow Highlight - COGCC Table 915-1 inorganic exceedance

Grey Highlight - below laboratory detection limit

soil screening level concentrations risk based (R) or MCL based (M)

MCL - maximum contaminant level

NA - not analyzed

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter





# Laboratory Results Summary Table

## State Antelope 14-21

### Soil - PAH

			Organic Compounds in Soils (mg/kg)													
COGCC Allowable Concentration (Soil) -->			360/0.55(R)	1800/5.8(R)	1.1/0.011(R)	1.1/0.3(R)	11/2.9(R)	0.11/0.24(M)	110/9(R)	0.11/0.096(R)	240/8.9(R)	240/0.54(R)	1.1/0.98(R)	18/0.006(R)	24/0.019(R)	180/1.3(R)
Location	Sample Date	Sample ID	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Pyrene
State Antelope 14-21	3/21/2022	B01@1'	0.0871	0.0254	0.031	<0.0134	<0.134	<0.134	0.143	<0.134	0.00821	0.378	<0.0134	1.6	0.298	0.0654
State Antelope 14-21	3/21/2022	N01@6"	0.00113	0.00179	0.00123	<0.00067	<0.00067	<0.00067	0.00651	<0.00067	<0.00067	0.00737	<0.00067	0.00196	0.00122	0.00304
State Antelope 14-21	3/21/2022	E01@6"	0.000809	0.000903	<0.00067	<0.00067	<0.00067	<0.00067	0.00326	<0.00067	<0.00067	0.00472	<0.00067	0.00288	0.00133	0.00162
State Antelope 14-21	3/21/2022	S01@6"	0.0071	0.00396	0.004	0.000893	<0.00067	<0.00067	0.0225	<0.00067	0.00097	0.045	<0.00067	0.0487	0.00789	0.00685
State Antelope 14-21	3/21/2022	W01@6"	0.00232	0.0036	0.00294	<0.00067	0.000947	<0.00067	0.0174	<0.00067	0.00103	0.0205	<0.00067	0.00204	0.00137	0.00549
State Antelope 14-21	3/21/2022	E02@3"	0.0136	0.0073	0.00521	<0.00335	0.00219	<0.00335	0.0492	<0.00335	0.00337	0.0719	<0.00335	0.0243	0.0132	0.019

**Legend:**

COGCC - Colorado Oil and Gas Conservation Commission

Orange Highlight - COGCC Table 915-1 TPH, BTEX, organic, metal exceedance

Yellow Highlight - COGCC Table 915-1 inorganic exceedance

Grey Highlight - below laboratory detection limit

soil screening level concentrations risk based (R) or MCL based (M)

MCL - maximum contaminant level

NA - not analyzed

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter





# Laboratory Results Summary Table

## State Antelope 14-21

### Soil - Inorganics

			Soil Suitability for Reclamation				Metals in Soils (mg/kg)									
COGCC Allowable Concentration (Soil) -->			<4	<6	(6-8.3)	2	0.68/0.29(M)	15000/82(M)	71/0.38(M)	0.3/0.00067(R)	3100/46(M)	400/14(M)	1500/26(R)	390/0.26(M)	390/0.8(R)	23000/370(R)
Site Specific Background -->							1.2875									
Location	Sample Date	Sample ID	Electrical Conductivity (EC) (by saturated paste method) (mmhos/cm)	Sodium Adsorption Ratio (SAR) (by saturated paste method) (Calculation)	pH (by saturated paste method) (pH Units)	Boron (hot water soluble soil extract) (mg/L)	Arsenic	Barium	Cadmium	Chromium (VI)	Copper	Lead	Nickel	Selenium	Silver	Zinc
State Antelope 14-21	3/21/2022	B01@1'	0.580	23.1	8.13	0.379	0.568	21.2	0.0282	<0.513	1.22	0.96	0.873	0.124	<0.25	4.47
State Antelope 14-21	3/21/2022	N01@6"	0.921	69.0	9.00	2.03	1.13	71.3	0.0361	<0.501	1.62	2.05	1.36	0.214	<0.25	7.26
State Antelope 14-21	3/21/2022	E01@6"	0.521	20.7	8.82	0.681	0.742	89.3	0.0281	<0.517	1.59	1.62	1.25	0.138	<0.25	6.6
State Antelope 14-21	3/21/2022	S01@6"	0.349	1.51	8.00	<0.0989	1.89	111	0.0535	<0.506	2.9	3.71	2.51	0.23	0.0078	11.3
State Antelope 14-21	3/21/2022	W01@6"	0.411	1.40	8.03	<0.0986	2.61	62.2	0.067	<0.5	5.34	6.04	3.61	0.432	0.0134	14.8
State Antelope 14-21	3/21/2022	E02@3"	0.394	0.574	7.85	0.100	1.5	85.3	1.14	<0.508	3.9	2.57	2.55	0.206	0.0084	12.3
State Antelope 14-21	3/21/2022	BKG01@6"	0.338	2.52	8.22	<0.101	1.03	54.9	0.03	<0.519	2.86	1.78	2.47	<0.25	0.007	8.71

**Legend:**

COGCC - Colorado Oil and Gas Conservation Commission

Orange Highlight - COGCC Table 915-1 TPH, BTEX, organic, metal exceedance

Yellow Highlight - COGCC Table 915-1 inorganic exceedance

Grey Highlight - below laboratory detection limit

soil screening level concentrations risk based (R) or MCL based (M)

MCL - maximum contaminant level

NA - not analyzed

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter





March 31, 2022

Apex Companies, LLC

Maggie Graham

4150 Darley Avenue, Suite 1

Boulder CO 80305

**Project Name - Bonanza - State Antelope #14-21    Project Number - C1v005-030042-220022**

Attached are your analytical results for Bonanza - State Antelope #14-21 received by Origins Laboratory, Inc. March 21, 2022. This project is associated with Origins project number Y203507-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.  
303.433.1322  
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
641887 202012 000000001 111676  
Project: Bonanza - State Antelope #14-21

**CROSS REFERENCE REPORT**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BKG01@6"	Y203507-01	Soil	March 21, 2022 15:26	03/21/2022 18:00
B01@1'	Y203507-02	Soil	March 21, 2022 15:35	03/21/2022 18:00
N01@6"	Y203507-03	Soil	March 21, 2022 15:42	03/21/2022 18:00
E01@6"	Y203507-04	Soil	March 21, 2022 15:46	03/21/2022 18:00
S01@6"	Y203507-05	Soil	March 21, 2022 15:51	03/21/2022 18:00
W01@6"	Y203507-06	Soil	March 21, 2022 16:00	03/21/2022 18:00
E02@3"	Y203507-07	Soil	March 21, 2022 16:11	03/21/2022 18:00

**Chain of Custody Modification Request**

On 3/22/2022, Ryan Finley from Apex contacted Jordan Bynon via email regarding Y203507 requesting that all hold samples be taken off hold for the full 915 analysis on a same day TAT.

Requested modifications to the chain of custody were made by Jordan Bynon on 3/22/2022.

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

*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.*







Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

Origins Laboratory

F-012207-01-R1  
Effective Date: 01/09/12

## Sample Receipt Checklist

Origins Work Order: 4205507

Client: Apex

Client Project ID: Bonanza - State Antelope

Checklist Completed by: ATH

Shipped Via: TD

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 3/21/22

Airbill #: UA

Matrix(s) Received: (Check all that apply):

☒ Soil/Solid

☐ Water

☐ Other:

(Describe)

Cooler Number/Temperature: 1 17.5 °C 1 °C 1 °C 1 °C

Thermometer ID: TC04

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		same day
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH > 10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup>If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Kelly J. Joffe  
Reviewed by (Project Manager)

3/21/22  
Date/Time Reviewed

Origins Laboratory, Inc.

Jen Pellegrini

Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

BKG01@6"

3/21/2022 3:26:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y203507-01 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.101	mg/L	1	B2C2209	03/22/2022	03/23/2022	U
-------	----	-------	------	---	---------	------------	------------	---

**Metals by Saturated Paste by EPA 6010**

Calcium	0.893	0.499	meq/L	10	[CALC]	03/23/2022	03/24/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	1.95	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.22	pH Units	1	B2C2315	03/23/2022	03/24/2022
----	------	----------	---	---------	------------	------------

**SAR by 20B Saturated Paste**

SAR	2.52	SAR	1	B2C2311	03/23/2022	03/24/2022
-----	------	-----	---	---------	------------	------------

**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.338	0.00500	mmhos/cm	1	B2C2313	03/23/2022	03/24/2022
---------------------------	-------	---------	----------	---	---------	------------	------------

**Total Metals by 6020B**

Arsenic	1.03	0.0855	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022
Barium	54.9	0.042	0.25	"	"	"	"	"
Cadmium	0.03	0.0259	0.25	"	"	"	"	"
Copper	2.86	0.0806	0.25	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

*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.*



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

BKG01@6"

3/21/2022 3:26:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Waypoint Analytical, Inc.**  
Y203507-01 (Soil)

**Total Metals by 6020B**

Lead	1.78	0.031	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
Nickel	2.47	0.0633	0.25	"	"	"	"	"	
Selenium	ND	0.103	0.25	"	"	"	"	"	
Silver	0.007	0.0067	0.25	"	"	"	"	"	J
Zinc	8.71	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.253	0.519	mg/Kg	1	L607597	03/21/2022	03/29/2022	
----------------------	----	-------	-------	-------	---	---------	------------	------------	--

Origins Laboratory, Inc.



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.

Jen Pellegrini, Project Manager



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

B01@1'

3/21/2022 3:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y203507-02 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.379	0.0998	mg/L	1	B2C2209	03/22/2022	03/23/2022
-------	-------	--------	------	---	---------	------------	------------

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	521	25.0	mg/kg	1	B2C2117	03/21/2022	03/22/2022
Residual Range Organics (C28-C40)	296	100	"	"	"	"	"

Surrogate: o-Terphenyl	94.6 %	50-150	"	"	"	"
------------------------	--------	--------	---	---	---	---

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	5.32	0.0500	mg/kg	25	B2C2118	03/21/2022	03/22/2022
1,3,5-Trimethylbenzene	3.44	0.0500	"	"	"	"	"
Benzene	1.25	0.0500	"	"	"	"	"
Ethylbenzene	1.18	0.0500	"	"	"	"	"
Toluene	22.2	0.500	"	250	"	"	03/22/2022
Xylenes, total	21.7	0.0500	"	25	"	"	03/22/2022
Gasoline Range Hydrocarbons	344	50.0	"	250	"	"	03/22/2022

Surrogate: 1,2-Dichloroethane-d4	96.0 %	70-130	"	"	"	"
Surrogate: Toluene-d8	105 %	70-130	"	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	70-130	"	"	"	"

Origins Laboratory, Inc.



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.

Jen Pellegrini, Project Manager



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

B01@1'

3/21/2022 3:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y203507-02 (Soil)**

**Metals by Saturated Paste by EPA 6010**

Calcium	ND	0.499	meq/L	10	[CALC]	03/23/2022	03/24/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	6.88	0.435	"	"	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	1.6	0.00728	0.0134	mg/Kg	20	L607241	03/26/2022	03/29/2022
2-Methylnaphthalene	0.298	0.0129	0.0134	"	"	"	"	"
Acenaphthene	0.0871	0.00608	0.0134	"	"	"	"	"
Anthracene	0.0254	0.00668	0.0134	"	"	"	"	"
Benzo(a)anthracene	0.031	0.00986	0.0134	"	"	"	"	"
Benzo(a)pyrene	ND	0.00936	0.0134	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.0117	0.0134	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.00874	0.0134	"	"	"	"	"
Chrysene	0.143	0.0125	0.0134	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.0123	0.0134	"	"	"	"	"
Fluoranthene	0.00821	0.00788	0.0134	"	"	"	"	"
Fluorene	0.378	0.00572	0.0134	"	"	"	"	"
Indeno(1,2,3-cd)pyrene	ND	0.0125	0.0134	"	"	"	"	"
Naphthalene	0.0782	0.00968	0.0134	"	"	"	"	"
Pyrene	0.0654	0.0129	0.0134	"	"	"	"	"
Surrogate: 2-Fluorobiphenyl	62.8 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	72.3 %		33-122			"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

B01@1'

3/21/2022 3:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Waypoint Analytical, Inc.**  
Y203507-02 (Soil)

**PAH by 8270D SIM**

Surrogate: Nitrobenzene-d5	72 %	29-110	L6072 41	03/26/2022	03/29/2022
----------------------------	------	--------	-------------	------------	------------

**pH in Soil by 9045D**

pH	8.13	pH Units	1	B2C2315	03/23/2022	03/24/2022
----	------	----------	---	---------	------------	------------

**SAR by 20B Saturated Paste**

SAR	23.1	SAR	1	B2C2311	03/23/2022	03/24/2022
-----	------	-----	---	---------	------------	------------

**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.580	0.00500	mmhos/cm	1	B2C2313	03/23/2022	03/24/2022
---------------------------	-------	---------	----------	---	---------	------------	------------

**Total Metals by 6020B**

Arsenic	0.568	0.0855	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022
Barium	21.2	0.042	0.25	"	"	"	"	"
Cadmium	0.0282	0.0259	0.25	"	"	"	"	J
Copper	1.22	0.0806	0.25	"	"	"	"	"
Lead	0.96	0.031	0.25	"	"	"	"	"
Nickel	0.873	0.0633	0.25	"	"	"	"	"
Selenium	0.124	0.103	0.25	"	"	"	"	J
Silver	ND	0.0067	0.25	"	"	"	"	"
Zinc	4.47	0.534	2.5	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
6416075 000040 0000000001 111670  
Project: Bonanza - State Antelope #14-21

B01@1'

3/21/2022 3:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

Waypoint Analytical, Inc.  
Y203507-02 (Soil)

## Total Metals by 7196A

Chromium, Hexavalent	ND	0.25	0.513	mg/Kg	1	L607597	03/21/2022	03/29/2022
----------------------	----	------	-------	-------	---	---------	------------	------------

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

N01@6"

3/21/2022 3:42:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y203507-03 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	2.03	0.0994	mg/L	1	B2C2209	03/22/2022	03/23/2022	
-------	------	--------	------	---	---------	------------	------------	--

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2C2201	03/22/2022	03/22/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	92.3 %	50-150			"	"	"	
------------------------	--------	--------	--	--	---	---	---	--

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2C2218	03/22/2022	03/22/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	84.7 %	70-130			"	"	"	
----------------------------------	--------	--------	--	--	---	---	---	--

Origins Laboratory, Inc.



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.

Jen Pellegrini, Project Manager



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

N01@6"

3/21/2022 3:42:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y203507-03 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: Toluene-d8	97.4 %	70-130	B2C22 18	03/22/2022	03/22/2022
Surrogate: 4-Bromofluorobenzene	99.2 %	70-130	"	"	"

**Metals by Saturated Paste by EPA 6010**

Calcium	ND	0.499	meq/L	10	[CALC]	03/23/2022	03/24/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	9.28	0.435	"	"	"	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	0.00196	0.000364	0.00067	mg/Kg	1	L607241	03/26/2022	03/29/2022
2-Methylnaphthalene	0.00122	0.000645	0.00067	"	"	"	"	"
Acenaphthene	0.00113	0.000304	0.00067	"	"	"	"	"
Anthracene	0.00179	0.000334	0.00067	"	"	"	"	"
Benzo(a)anthracene	0.00123	0.000493	0.00067	"	"	"	"	"
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"
Chrysene	0.00651	0.000624	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"
Fluoranthene	ND	0.000394	0.00067	"	"	"	"	"
Fluorene	0.00737	0.000286	0.00067	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

N01@6"

3/21/2022 3:42:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Waypoint Analytical, Inc.**  
Y203507-03 (Soil)

**PAH by 8270D SIM**

Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	mg/Kg	1	L607241	03/26/2022	03/29/2022
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"
Pyrene	0.00304	0.000643	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	61.2 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	70.9 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	67 %		29-110			"	"	"

**pH in Soil by 9045D**

pH	9.00			pH Units	1	B2C2315	03/23/2022	03/24/2022
----	------	--	--	----------	---	---------	------------	------------

**SAR by 20B Saturated Paste**

SAR	69.0			SAR	1	B2C2311	03/23/2022	03/24/2022
-----	------	--	--	-----	---	---------	------------	------------

**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.921		0.00500	mmhos/cm	1	B2C2313	03/23/2022	03/24/2022
---------------------------	-------	--	---------	----------	---	---------	------------	------------

**Total Metals by 6020B**

Arsenic	1.13	0.0855	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022
Barium	71.3	0.042	0.25	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

N01@6"

3/21/2022 3:42:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Waypoint Analytical, Inc.**  
Y203507-03 (Soil)

**Total Metals by 6020B**

Cadmium	0.0361	0.0259	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	J
Copper	1.62	0.0806	0.25	"	"	"	"	"	
Lead	2.05	0.031	0.25	"	"	"	"	"	
Nickel	1.36	0.0633	0.25	"	"	"	"	"	
Selenium	0.214	0.103	0.25	"	"	"	"	"	J
Silver	ND	0.0067	0.25	"	"	"	"	"	
Zinc	7.26	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196 A**

Chromium, Hexavalent	ND	0.244	0.501	mg/Kg	1	L607684	03/21/2022	03/29/2022	
----------------------	----	-------	-------	-------	---	---------	------------	------------	--

Origins Laboratory, Inc.



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.

Jen Pellegrini, Project Manager

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

E01@6"

3/21/2022 3:46:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y203507-04 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.681	0.100	mg/L	1	B2C2209	03/22/2022	03/23/2022	
-------	-------	-------	------	---	---------	------------	------------	--

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	47.2	25.0	mg/kg	1	B2C2201	03/22/2022	03/22/2022	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	98.2 %	50-150	"	"	"	"	"	
------------------------	--------	--------	---	---	---	---	---	--

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2C2218	03/22/2022	03/22/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	87.1 %	70-130	"	"	"	"	"	
Surrogate: Toluene-d8	96.9 %	70-130	"	"	"	"	"	

Origins Laboratory, Inc.



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.

Jen Pellegrini, Project Manager



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

E01@6"

3/21/2022 3:46:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.  
Y203507-04 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 4-Bromofluorobenzene	102 %	70-130	B2C22 18	03/22/2022	03/22/2022
---------------------------------	-------	--------	-------------	------------	------------

## Metals by Saturated Paste by EPA 6010

Calcium	ND	0.499	meq/L	10	[CALC]	03/23/2022	03/24/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	5.89	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	0.00288	0.000364	0.00067	mg/Kg	1	L607241	03/26/2022	03/29/2022
2-Methylnaphthalene	0.00133	0.000645	0.00067	"	"	"	"	"
Acenaphthene	0.000809	0.000304	0.00067	"	"	"	"	"
Anthracene	0.000903	0.000334	0.00067	"	"	"	"	"
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"
Chrysene	0.00326	0.000624	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"
Fluoranthene	ND	0.000394	0.00067	"	"	"	"	"
Fluorene	0.00472	0.000286	0.00067	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

E01@6"

3/21/2022 3:46:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

Waypoint Analytical, Inc.  
Y203507-04 (Soil)

## PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	mg/Kg	1	L607241	03/26/2022	03/29/2022	
Naphthalene	0.00064	0.000484	0.00067	"	"	"	"	"	J
Pyrene	0.00162	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	57.1 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	68.7 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	63.2 %		29-110			"	"	"	

## pH in Soil by 9045D

pH	8.82			pH Units	1	B2C2315	03/23/2022	03/24/2022	
----	------	--	--	----------	---	---------	------------	------------	--

## SAR by 20B Saturated Paste

SAR	20.7			SAR	1	B2C2311	03/23/2022	03/24/2022	
-----	------	--	--	-----	---	---------	------------	------------	--

## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.521		0.00500	mmhos/cm	1	B2C2313	03/23/2022	03/24/2022	
---------------------------	-------	--	---------	----------	---	---------	------------	------------	--

## Total Metals by 6020B

Arsenic	0.742	0.0855	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
Barium	89.3	0.042	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

E01@6"

3/21/2022 3:46:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Waypoint Analytical, Inc.**  
Y203507-04 (Soil)

**Total Metals by 6020B**

Cadmium	0.0281	0.0259	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	J
Copper	1.59	0.0806	0.25	"	"	"	"	"	
Lead	1.62	0.031	0.25	"	"	"	"	"	
Nickel	1.25	0.0633	0.25	"	"	"	"	"	
Selenium	0.138	0.103	0.25	"	"	"	"	"	J
Silver	ND	0.0067	0.25	"	"	"	"	"	
Zinc	6.6	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196 A**

Chromium, Hexavalent	ND	0.252	0.517	mg/Kg	1	L607684	03/21/2022	03/29/2022	
----------------------	----	-------	-------	-------	---	---------	------------	------------	--

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

*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.*

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

S01@6"

3/21/2022 3:51:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y203507-05 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.0989	mg/L	1	B2C2209	03/22/2022	03/23/2022	U
-------	----	--------	------	---	---------	------------	------------	---

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	148	25.0	mg/kg	1	B2C2201	03/22/2022	03/22/2022	
Residual Range Organics (C28-C40)	113	100	"	"	"	"	"	

Surrogate: o-Terphenyl	95.1 %	50-150	"	"	"	"	"	
------------------------	--------	--------	---	---	---	---	---	--

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	0.00520	0.00200	mg/kg	1	B2C2218	03/22/2022	03/22/2022	
1,3,5-Trimethylbenzene	0.00292	0.00200	"	"	"	"	"	
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	90.7 %	70-130	"	"	"	"	"	
Surrogate: Toluene-d8	96.8 %	70-130	"	"	"	"	"	

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

S01@6"

3/21/2022 3:51:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.  
Y203507-05 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 4-Bromofluorobenzene	108 %	70-130	B2C22 18	03/22/2022	03/22/2022
---------------------------------	-------	--------	-------------	------------	------------

## Metals by Saturated Paste by EPA 6010

Calcium	1.50	0.499	meq/L	10	[CALC]	03/23/2022	03/24/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	1.43	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	0.0487	0.000364	0.00067	mg/Kg	1	L607241	03/26/2022	03/29/2022
2-Methylnaphthalene	0.00789	0.000645	0.00067	"	"	"	"	"
Acenaphthene	0.0071	0.000304	0.00067	"	"	"	"	"
Anthracene	0.00396	0.000334	0.00067	"	"	"	"	"
Benzo(a)anthracene	0.004	0.000493	0.00067	"	"	"	"	"
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	0.000893	0.000585	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"
Chrysene	0.0225	0.000624	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"
Fluoranthene	0.00097	0.000394	0.00067	"	"	"	"	"
Fluorene	0.045	0.000286	0.00067	"	"	"	"	"
Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

S01@6"

3/21/2022 3:51:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Waypoint Analytical, Inc.**  
Y203507-05 (Soil)

**PAH by 8270D SIM**

Naphthalene	0.00272	0.000484	0.00067	mg/Kg	1	L607241	03/26/2022	03/29/2022	
Pyrene	0.00685	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	54.7 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	56.6 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	61.8 %		29-110			"	"	"	

**pH in Soil by 9045D**

pH	8.00			pH Units	1	B2C2315	03/23/2022	03/24/2022	
----	------	--	--	----------	---	---------	------------	------------	--

**SAR by 20B Saturated Paste**

SAR	1.51			SAR	1	B2C2311	03/23/2022	03/24/2022	
-----	------	--	--	-----	---	---------	------------	------------	--

**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.349		0.00500	mmhos/cm	1	B2C2313	03/23/2022	03/24/2022	
---------------------------	-------	--	---------	----------	---	---------	------------	------------	--

**Total Metals by 6020B**

Arsenic	1.89	0.0855	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
Barium	111	0.042	0.25	"	"	"	"	"	
Cadmium	0.0535	0.0259	0.25	"	"	"	"	"	J

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

S01@6"

3/21/2022 3:51:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Waypoint Analytical, Inc.**  
Y203507-05 (Soil)

**Total Metals by 6020B**

Copper	2.9	0.0806	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
Lead	3.71	0.031	0.25	"	"	"	"	"	
Nickel	2.51	0.0633	0.25	"	"	"	"	"	
Selenium	0.23	0.103	0.25	"	"	"	"	"	J
Silver	0.0078	0.0067	0.25	"	"	"	"	"	J
Zinc	11.3	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196 A**

Chromium, Hexavalent	ND	0.246	0.506	mg/Kg	1	L607684	03/21/2022	03/29/2022	
----------------------	----	-------	-------	-------	---	---------	------------	------------	--

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

*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.*



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
641887 000040 0000000001 111070  
Project: Bonanza - State Antelope #14-21

W01@6"

3/21/2022 4:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y203507-06 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.0986	mg/L	1	B2C2309	03/23/2022	03/24/2022	U
-------	----	--------	------	---	---------	------------	------------	---

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	145	25.0	mg/kg	1	B2C2201	03/22/2022	03/22/2022	
Residual Range Organics (C28-C40)	155	100	"	"	"	"	"	

Surrogate: o-Terphenyl	95.2 %	50-150			"	"	"	
------------------------	--------	--------	--	--	---	---	---	--

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2C2218	03/22/2022	03/22/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.5 %	70-130			"	"	"	
Surrogate: Toluene-d8	103 %	70-130			"	"	"	

Origins Laboratory, Inc.



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.

Jen Pellegrini, Project Manager

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

W01@6"

3/21/2022 4:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.  
Y203507-06 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 4-Bromofluorobenzene	99.8 %	70-130	B2C22 18	03/22/2022	03/22/2022
---------------------------------	--------	--------	-------------	------------	------------

## Metals by Saturated Paste by EPA 6010

Calcium	2.13	0.499	meq/L	10	[CALC]	03/23/2022	03/24/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	1.54	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	0.00204	0.000364	0.00067	mg/Kg	1	L607241	03/26/2022	03/29/2022
2-Methylnaphthalene	0.00137	0.000645	0.00067	"	"	"	"	"
Acenaphthene	0.00232	0.000304	0.00067	"	"	"	"	"
Anthracene	0.0036	0.000334	0.00067	"	"	"	"	"
Benzo(a)anthracene	0.00294	0.000493	0.00067	"	"	"	"	"
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"
Benzo(k)fluoranthene	0.000947	0.000437	0.00067	"	"	"	"	"
Chrysene	0.0174	0.000624	0.00067	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"
Fluoranthene	0.00103	0.000394	0.00067	"	"	"	"	"
Fluorene	0.0205	0.000286	0.00067	"	"	"	"	"
Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

W01@6"

3/21/2022 4:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

Waypoint Analytical, Inc.  
Y203507-06 (Soil)

## PAH by 8270D SIM

Naphthalene	ND	0.000484	0.00067	mg/Kg	1	L607241	03/26/2022	03/29/2022
Pyrene	0.00549	0.000643	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	57 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	55.2 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	62.8 %		29-110			"	"	"

## pH in Soil by 9045D

pH	8.03			pH Units	1	B2C2315	03/23/2022	03/24/2022
----	------	--	--	----------	---	---------	------------	------------

## SAR by 20B Saturated Paste

SAR	1.40			SAR	1	B2C2311	03/23/2022	03/24/2022
-----	------	--	--	-----	---	---------	------------	------------

## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.411		0.00500	mmhos/cm	1	B2C2313	03/23/2022	03/24/2022
---------------------------	-------	--	---------	----------	---	---------	------------	------------

## Total Metals by 6020B

Arsenic	2.61	0.0855	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022
Barium	62.2	0.042	0.25	"	"	"	"	"
Cadmium	0.067	0.0259	0.25	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

W01@6"

3/21/2022 4:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Waypoint Analytical, Inc.**  
Y203507-06 (Soil)

**Total Metals by 6020B**

Copper	5.34	0.0806	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
Lead	6.04	0.031	0.25	"	"	"	"	"	
Nickel	3.61	0.0633	0.25	"	"	"	"	"	
Selenium	0.432	0.103	0.25	"	"	"	"	"	
Silver	0.0134	0.0067	0.25	"	"	"	"	"	J
Zinc	14.8	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196 A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L607684	03/21/2022	03/29/2022	
----------------------	----	-------	-----	-------	---	---------	------------	------------	--

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

*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.*

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

E02@3"

3/21/2022 4:11:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y203507-07 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.100	0.100	mg/L	1	B2C2309	03/23/2022	03/24/2022
-------	-------	-------	------	---	---------	------------	------------

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	222	25.0	mg/kg	1	B2C2201	03/22/2022	03/22/2022
Residual Range Organics (C28-C40)	290	100	"	"	"	"	"

Surrogate: o-Terphenyl	97.2 %	50-150	"	"	"
------------------------	--------	--------	---	---	---

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2C2218	03/22/2022	03/22/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.0 %	70-130	"	"	"
Surrogate: Toluene-d8	103 %	70-130	"	"	"

Origins Laboratory, Inc.



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.

Jen Pellegrini, Project Manager

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

E02@3"

3/21/2022 4:11:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.  
Y203507-07 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 4-Bromofluorobenzene	97.4 %	70-130	B2C22 18	03/22/2022	03/22/2022
---------------------------------	--------	--------	-------------	------------	------------

## Metals by Saturated Paste by EPA 6010

Calcium	2.72	0.499	meq/L	10	[CALC]	03/23/2022	03/24/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	0.713	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	0.0243	0.00182	0.00335	mg/Kg	5	L607241	03/26/2022	03/29/2022
2-Methylnaphthalene	0.0132	0.00323	0.00335	"	"	"	"	"
Acenaphthene	0.0136	0.00152	0.00335	"	"	"	"	"
Anthracene	0.0073	0.00167	0.00335	"	"	"	"	"
Benzo(a)anthracene	0.00521	0.00247	0.00335	"	"	"	"	"
Benzo(a)pyrene	ND	0.00234	0.00335	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.00293	0.00335	"	"	"	"	"
Benzo(k)fluoranthene	0.00219	0.00219	0.00335	"	"	"	"	"
Chrysene	0.0492	0.00312	0.00335	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.00307	0.00335	"	"	"	"	"
Fluoranthene	0.00337	0.00197	0.00335	"	"	"	"	"
Fluorene	0.0719	0.00143	0.00335	"	"	"	"	"
Indeno(1,2,3-cd)pyrene	ND	0.00314	0.00335	"	"	"	"	"

Origins Laboratory, Inc.



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.

Jen Pellegrini, Project Manager



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

E02@3"

3/21/2022 4:11:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

Waypoint Analytical, Inc.  
Y203507-07 (Soil)

## PAH by 8270D SIM

Naphthalene	ND	0.00242	0.00335	mg/Kg	5	L607241	03/26/2022	03/29/2022
Pyrene	0.019	0.00322	0.00335	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	61.8 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	71.6 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	62.4 %		29-110			"	"	"

## pH in Soil by 9045D

pH	7.85			pH Units	1	B2C2315	03/23/2022	03/24/2022
----	------	--	--	----------	---	---------	------------	------------

## SAR by 20B Saturated Paste

SAR	0.574			SAR	1	B2C2311	03/23/2022	03/24/2022
-----	-------	--	--	-----	---	---------	------------	------------

## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.394		0.00500	mmhos/cm	1	B2C2313	03/23/2022	03/24/2022
---------------------------	-------	--	---------	----------	---	---------	------------	------------

## Total Metals by 6020B

Arsenic	1.5	0.0855	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022
Barium	85.3	0.042	0.25	"	"	"	"	"
Cadmium	1.14	0.0259	0.25	"	"	"	"	"

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

E02@3"

3/21/2022 4:11:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

**Waypoint Analytical, Inc.**  
Y203507-07 (Soil)

**Total Metals by 6020B**

Copper	3.9	0.0806	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
Lead	2.57	0.031	0.25	"	"	"	"	"	
Nickel	2.55	0.0633	0.25	"	"	"	"	"	
Selenium	0.206	0.103	0.25	"	"	"	"	"	J
Silver	0.0084	0.0067	0.25	"	"	"	"	"	J
Zinc	12.3	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196 A**

Chromium, Hexavalent	ND	0.247	0.508	mg/Kg	1	L607684	03/21/2022	03/29/2022	
----------------------	----	-------	-------	-------	---	---------	------------	------------	--

Origins Laboratory, Inc.



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.

Jen Pellegrini, Project Manager

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C2117 - EPA 3550B										
Blank (B2C2117-BLK1)					Prepared: 03/21/2022 Analyzed: 03/21/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	23		"	24.9		91.0	50-150			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

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

Batch B2C2117 - EPA 3550B

### LCS (B2C2117-BS1)

Prepared: 03/21/2022 Analyzed: 03/21/2022

Diesel (C10-C28)	906	50.0	mg/kg	1000		90.6	70-130			
Residual Range Organics (C28-C40)	976	200	"	1000		97.6	70-130			
Surrogate: o-Terphenyl	48		"	49.8		97.1	50-150			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
64-8875-0000-10-000000000-14-1070  
Project: Bonanza - State Antelope #14-21

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

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

### Batch B2C2117 - EPA 3550B

Matrix Spike (B2C2117-MS1)		Source: Y203488-01			Prepared: 03/21/2022 Analyzed: 03/21/2022					
Diesel (C10-C28)	879	50.0	mg/kg	1000	ND	87.9	70-130			
Residual Range Organics (C28-C40)	934	200	"	1000	ND	93.4	70-130			
Surrogate: o-Terphenyl	46		"	49.8		93.1	50-150			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C2117 - EPA 3550B										
Matrix Spike Dup (B2C2117-MSD1)		Source: Y203488-01			Prepared: 03/21/2022 Analyzed: 03/21/2022					
Diesel (C10-C28)	822	50.0	mg/kg	1000	ND	82.2	70-130	6.68	35	
Residual Range Organics (C28-C40)	941	200	"	1000	ND	94.1	70-130	0.680	35	
Surrogate: o-Terphenyl	48		"	49.8		96.4	50-150			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
64-0005 000040 0000000001 444070  
Project: Bonanza - State Antelope #14-21

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C2118 - EPA 5030 (soil)										
Blank (B2C2118-BLK1)					Prepared: 03/21/2022 Analyzed: 03/21/2022					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.0100	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		92.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.0	70-130			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
64-005-0000-0-00000000-1414250  
Project: Bonanza - State Antelope #14-21

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C2118 - EPA 5030 (soil)										
LCS (B2C2118-BS1)					Prepared: 03/21/2022 Analyzed: 03/21/2022					
1,2,4-Trimethylbenzene	0.0962	0.00200	mg/kg	0.100		96.2	70-130			
1,3,5-Trimethylbenzene	0.0963	0.00200	"	0.100		96.3	70-130			
Benzene	0.103	0.00200	"	0.100		103	70-130			
Ethylbenzene	0.0916	0.00200	"	0.100		91.6	70-130			
Naphthalene	0.112	0.0100	"	0.100		112	70-130			
Toluene	0.107	0.00200	"	0.100		107	70-130			
o-Xylene	0.0941	0.00200	"	0.100		94.1	70-130			
m,p-Xylene	0.182	0.00400	"	0.200		90.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		89.2	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.4	70-130			

Origins Laboratory, Inc.

Jeff Pelligrini

**Jen Pellegrini, Project Manager**

*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.*

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
64-005 000040 000000001 444070  
Project: Bonanza - State Antelope #14-21

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2C2118 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B2C2118-MS1)</b>		<b>Source: Y203488-01</b>			Prepared: 03/21/2022 Analyzed: 03/21/2022					
1,2,4-Trimethylbenzene	0.0820	0.00200	mg/kg	0.100	ND	82.0	70-130			
1,3,5-Trimethylbenzene	0.0806	0.00200	"	0.100	ND	80.6	70-130			
Benzene	0.0946	0.00200	"	0.100	ND	94.6	70-130			
Ethylbenzene	0.0800	0.00200	"	0.100	ND	80.0	70-130			
Naphthalene	0.100	0.0100	"	0.100	ND	100	70-130			
Toluene	0.0924	0.00200	"	0.100	ND	92.4	70-130			
o-Xylene	0.0810	0.00200	"	0.100	ND	81.0	70-130			
m,p-Xylene	0.159	0.00400	"	0.200	ND	79.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
64-005-0000-0-00000000-1414250  
Project: Bonanza - State Antelope #14-21

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C2118 - EPA 5030 (soil)										
Matrix Spike Dup (B2C2118-MSD1)		Source: Y203488-01			Prepared: 03/21/2022 Analyzed: 03/21/2022					
1,2,4-Trimethylbenzene	0.108	0.00200	mg/kg	0.100	ND	108	70-130	27.6	20	QR-02
1,3,5-Trimethylbenzene	0.107	0.00200	"	0.100	ND	107	70-130	28.2	20	QR-02
Benzene	0.115	0.00200	"	0.100	ND	115	70-130	19.9	20	
Ethylbenzene	0.105	0.00200	"	0.100	ND	105	70-130	27.4	20	QR-02
Naphthalene	0.124	0.0100	"	0.100	ND	124	70-130	21.2	20	QR-02
Toluene	0.115	0.00200	"	0.100	ND	115	70-130	21.9	20	QR-02
o-Xylene	0.107	0.00200	"	0.100	ND	107	70-130	27.7	20	QR-02
m,p-Xylene	0.210	0.00400	"	0.200	ND	105	70-130	27.2	20	QR-02
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		91.9	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.

Jeff Pelligrini

**Jen Pellegrini, Project Manager**

*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.*

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

## Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C2201 - EPA 3580										
Blank (B2C2201-BLK1)					Prepared: 03/22/2022 Analyzed: 03/22/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	28		"	24.9		114	50-150			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

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

Batch B2C2201 - EPA 3580

### LCS (B2C2201-BS1)

Prepared: 03/22/2022 Analyzed: 03/22/2022

Diesel (C10-C28)	926	50.0	mg/kg	1000		92.6	70-130			
Residual Range Organics (C28-C40)	967	200	"	1000		96.7	70-130			
Surrogate: o-Terphenyl	57		"	49.8		114	50-150			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

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

Batch B2C2201 - EPA 3580

Matrix Spike (B2C2201-MS1)		Source: Y203476-02			Prepared: 03/22/2022 Analyzed: 03/22/2022					
Diesel (C10-C28)	952	50.0	mg/kg	1000	ND	95.2	70-130			
Residual Range Organics (C28-C40)	1020	200	"	1000	ND	102	70-130			
Surrogate: o-Terphenyl	58		"	49.8		116	50-150			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C2201 - EPA 3580										
Matrix Spike Dup (B2C2201-MSD1)			Source: Y203476-02			Prepared: 03/22/2022 Analyzed: 03/22/2022				
Diesel (C10-C28)	995	50.0	mg/kg	1000	ND	99.5	70-130	4.41	35	
Residual Range Organics (C28-C40)	1020	200	"	1000	ND	102	70-130	0.0747	35	
Surrogate: o-Terphenyl	54		"	49.8		108	50-150			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
64-005 000040 000000001 444070  
Project: Bonanza - State Antelope #14-21

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C2218 - EPA 5030 (soil)										
Blank (B2C2218-BLK1)					Prepared: 03/22/2022 Analyzed: 03/22/2022					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.0100	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
64-005-000040-000000001-111070  
Project: Bonanza - State Antelope #14-21

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2C2218 - EPA 5030 (soil)</b>										
<b>LCS (B2C2218-BS1)</b>					Prepared: 03/22/2022 Analyzed: 03/22/2022					
1,2,4-Trimethylbenzene	0.0972	0.00200	mg/kg	0.100		97.2	70-130			
1,3,5-Trimethylbenzene	0.0973	0.00200	"	0.100		97.3	70-130			
Benzene	0.0968	0.00200	"	0.100		96.8	70-130			
Ethylbenzene	0.0970	0.00200	"	0.100		97.0	70-130			
Naphthalene	0.0995	0.0100	"	0.100		99.5	70-130			
Toluene	0.0913	0.00200	"	0.100		91.3	70-130			
o-Xylene	0.0978	0.00200	"	0.100		97.8	70-130			
m,p-Xylene	0.197	0.00400	"	0.200		98.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

*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.*

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
64-005 000040 000000001 444070  
Project: Bonanza - State Antelope #14-21

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2C2218 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B2C2218-MS1)</b>		<b>Source: Y203507-03</b>			Prepared: 03/22/2022 Analyzed: 03/22/2022					
1,2,4-Trimethylbenzene	0.103	0.00200	mg/kg	0.100	ND	103	70-130			
1,3,5-Trimethylbenzene	0.103	0.00200	"	0.100	ND	103	70-130			
Benzene	0.109	0.00200	"	0.100	ND	109	70-130			
Ethylbenzene	0.106	0.00200	"	0.100	ND	106	70-130			
Naphthalene	0.108	0.0100	"	0.100	0.000880	107	70-130			
Toluene	0.104	0.00200	"	0.100	ND	104	70-130			
o-Xylene	0.105	0.00200	"	0.100	ND	105	70-130			
m,p-Xylene	0.213	0.00400	"	0.200	ND	106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		86.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
64-005 000040 000000001 444070  
Project: Bonanza - State Antelope #14-21

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2C2218 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B2C2218-MSD1)</b>		<b>Source: Y203507-03</b>			Prepared: 03/22/2022 Analyzed: 03/22/2022					
1,2,4-Trimethylbenzene	0.105	0.00200	mg/kg	0.100	ND	105	70-130	2.64	20	
1,3,5-Trimethylbenzene	0.105	0.00200	"	0.100	ND	105	70-130	2.12	20	
Benzene	0.111	0.00200	"	0.100	ND	111	70-130	1.51	20	
Ethylbenzene	0.108	0.00200	"	0.100	ND	108	70-130	1.92	20	
Naphthalene	0.114	0.0100	"	0.100	0.000880	113	70-130	5.68	20	
Toluene	0.106	0.00200	"	0.100	ND	106	70-130	2.34	20	
o-Xylene	0.108	0.00200	"	0.100	ND	108	70-130	2.62	20	
m,p-Xylene	0.217	0.00400	"	0.200	ND	108	70-130	1.71	20	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		84.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

## Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

### Origins Laboratory, Inc.

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

## Classical Chemistry Parameters - Quality Control

### Origins Laboratory, Inc.

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

#### Batch B2C2209 - Default Prep Metals

##### Blank (B2C2209-BLK1)

Prepared: 03/22/2022 Analyzed: 03/23/2022

Boron	ND	0.100	mg/L							U
-------	----	-------	------	--	--	--	--	--	--	---

##### Duplicate (B2C2209-DUP1)

Source: Y203502-05

Prepared: 03/22/2022 Analyzed: 03/23/2022

Boron	0.261	0.100	mg/L		0.277			5.92	50	
-------	-------	-------	------	--	-------	--	--	------	----	--

#### Batch B2C2309 - Default Prep Metals

##### Blank (B2C2309-BLK1)

Prepared: 03/23/2022 Analyzed: 03/24/2022

Boron	ND	0.100	mg/L							U
-------	----	-------	------	--	--	--	--	--	--	---

##### Duplicate (B2C2309-DUP1)

Source: Y203507-06

Prepared: 03/23/2022 Analyzed: 03/24/2022

Boron	0.0804	0.101	mg/L		0.0789			1.89	50	U
-------	--------	-------	------	--	--------	--	--	------	----	---

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

## Saturated Paste - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2C2313 - NO PREP</b>										
<b>Blank (B2C2313-BLK1)</b>					Prepared: 03/23/2022 Analyzed: 03/24/2022					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							U
<b>Duplicate (B2C2313-DUP1)</b>					<b>Source: Y203506-12</b> Prepared: 03/23/2022 Analyzed: 03/24/2022					
Specific Conductance (EC)	0.329	0.00500	mmhos/cm		0.323			1.87	25	
<b>Batch B2C2315 - NO PREP</b>										
<b>Duplicate (B2C2315-DUP1)</b>					<b>Source: Y203506-12</b> Prepared: 03/23/2022 Analyzed: 03/24/2022					
pH	7.69		pH Units		7.80			1.42	25	

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
614885 333342 33333333 144675  
Project: Bonanza - State Antelope #14-21

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

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

**Batch L607241 - 3550B**

MSD (L 95085-MSD-L607241)		Source: 95085			Prepared: 03/26/2022 Analyzed: 03/29/2022					
Benzo(a)anthracene	0.119	0.000493	mg/Kg	0.166	0.00182	70.5	30-130	7.8	30	
Naphthalene	0.0974	0.000484	"	0.166	<0.000484	58.6	30-130	8.5	30	
Indeno(1,2,3-cd)pyrene	0.0919	0.000627	"	0.166	<0.000627	55.3	30-130	16.6	30	
Fluorene	0.109	0.000286	"	0.166	<0.000286	65.6	30-130	10.3	30	
1-Methylnaphthalene	0.1	0.000364	"	0.166	<0.000364	60.2	30-130	8.6	30	
2-Methylnaphthalene	0.102	0.000645	"	0.166	<0.000645	61.4	30-130	9.1	30	
Fluoranthene	0.108	0.000394	"	0.166	0.0034	63	30-130	4.7	30	
Anthracene	0.106	0.000334	"	0.166	<0.000334	63.8	30-130	7.7	30	
Pyrene	0.107	0.000643	"	0.166	0.00308	62.6	30-130	6.7	30	
Benzo(a)pyrene	0.11	0.000468	"	0.166	0.00164	65.2	30-130	3.7	30	
Benzo(b)fluoranthene	0.0867	0.000585	"	0.166	0.00183	51.1	30-130	3.6	30	
Benzo(k)fluoranthene	0.0947	0.000437	"	0.166	0.000908	56.5	30-130	4.9	30	
Chrysene	0.113	0.000624	"	0.166	0.00226	66.7	30-130	8.2	30	
Dibenz(a,h)anthracene	0.109	0.000614	"	0.166	<0.000614	65.6	30-130	8.6	30	
Acenaphthene	0.101	0.000304	"	0.166	<0.000304	60.8	30-130	10.7	30	
Surrogate: Nitrobenzene-d5	61.7		"	0.332	220	61.7	29-110			
Surrogate: 2-Fluorobiphenyl	56.3		"	0.332	195	56.3	33-115			
Surrogate: 4-Terphenyl-d14	68		"	0.332	231	68	33-122			

MS (L 95085-MS-L607241)		Source: 95085			Prepared: 03/26/2022 Analyzed: 03/29/2022					
Benzo(a)pyrene	0.106	0.000468	mg/Kg	0.163	0.00164	64	30-130			
Pyrene	0.1	0.000643	"	0.163	0.00308	59.4	30-130			
Naphthalene	0.0894	0.000484	"	0.163	<0.000484	54.8	30-130			
Fluorene	0.0983	0.000286	"	0.163	<0.000286	60.3	30-130			
Fluoranthene	0.103	0.000394	"	0.163	0.0034	61.1	30-130			
Dibenz(a,h)anthracene	0.1	0.000614	"	0.163	<0.000614	61.3	30-130			
Chrysene	0.104	0.000624	"	0.163	0.00226	62.4	30-130			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

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

**Batch L607241 - 3550B**

MS (L 95085-MS-L607241)		Source: 95085			Prepared: 03/26/2022 Analyzed: 03/29/2022					
1-Methylnaphthalene	0.0917	0.000364	mg/Kg	0.163	<0.000364	56.2	30-130			
Benzo(b)fluoranthene	0.0836	0.000585	"	0.163	0.00183	50.1	30-130			
Benzo(a)anthracene	0.11	0.000493	"	0.163	0.00182	66.3	30-130			
Anthracene	0.0981	0.000334	"	0.163	<0.000334	60.1	30-130			
Acenaphthene	0.0907	0.000304	"	0.163	<0.000304	55.6	30-130			
2-Methylnaphthalene	0.0931	0.000645	"	0.163	<0.000645	57.1	30-130			
Indeno(1,2,3-cd)pyrene	0.0778	0.000627	"	0.163	<0.000627	47.7	30-130			
Benzo(k)fluoranthene	0.0901	0.000437	"	0.163	0.000908	54.7	30-130			
Surrogate: 2-Fluorobiphenyl	53		"	0.326	195	53	33-115			
Surrogate: 4-Terphenyl-d14	66.2		"	0.326	231	66.2	33-122			
Surrogate: Nitrobenzene-d5	57.9		"	0.326	220	57.9	29-110			

LCS (LCS-L607241)		Prepared: 03/26/2022 Analyzed: 03/29/2022								
Chrysene	0.115	0.000624	mg/Kg	0.167		68.8	30-130			
2-Methylnaphthalene	0.108	0.000645	"	0.167		64.6	30-130			
Acenaphthene	0.105	0.000304	"	0.167		62.8	30-130			
Benzo(a)anthracene	0.123	0.000493	"	0.167		73.6	30-130			
1-Methylnaphthalene	0.107	0.000364	"	0.167		64	30-130			
Benzo(k)fluoranthene	0.103	0.000437	"	0.167		61.6	30-130			
Anthracene	0.111	0.000334	"	0.167		66.4	30-130			
Dibenz(a,h)anthracene	0.114	0.000614	"	0.167		68.2	30-130			
Fluoranthene	0.114	0.000394	"	0.167		68.2	30-130			
Fluorene	0.114	0.000286	"	0.167		68.2	30-130			
Indeno(1,2,3-cd)pyrene	0.107	0.000627	"	0.167		64	30-130			
Naphthalene	0.103	0.000484	"	0.167		61.6	30-130			
Pyrene	0.113	0.000643	"	0.167		67.6	30-130			
Benzo(b)fluoranthene	0.0933	0.000585	"	0.167		55.8	30-130			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
64-0005 000040 0000000001 111070  
Project: Bonanza - State Antelope #14-21

PAH by 8270D SIM - Quality Control  
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L607241 - 3550B</b>										
<b>LCS (LCS-L607241)</b>					Prepared: 03/26/2022 Analyzed: 03/29/2022					
Benzo(a)pyrene	0.117	0.000468	mg/Kg	0.167		70	30-130			
Surrogate: 2-Fluorobiphenyl	65.4		"	0.333	65.4		33-115			
Surrogate: 4-Terphenyl-d14	80.4		"	0.333	80.4		33-122			
Surrogate: Nitrobenzene-d5	68.7		"	0.333	68.7		29-110			
<b>LRB (LRB-L607241)</b>					Prepared: 03/26/2022 Analyzed: 03/29/2022					
Benzo(b)fluoranthene	ND	0.00067	mg/Kg				-			
2-Methylnaphthalene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Surrogate: 4-Terphenyl-d14	82.5		"	0.333	82.5		33-122			
Surrogate: 2-Fluorobiphenyl	66		"	0.333	66		33-115			
Surrogate: Nitrobenzene-d5	72.9		"	0.333	72.9		29-110			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
Project: Bonanza - State Antelope #14-21

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L606847 - 3050B</b>										
<b>MSD (L 94516-MSD-L606847)</b>			<b>Source: 94516</b>		Prepared: 03/24/2022 Analyzed: 03/29/2022					
Selenium	5.04	0.103	mg/Kg	4.93	0.252	97	75-125	11	80	
Zinc	37.5	0.534	"	24.6	17.6	81	75-125	0	80	
Silver	0.492	0.0067	"	0.493	<0.0067	100	75-125	11.6	80	
Nickel	5.91	0.0633	"	2.46	4.15	71	75-125	7.9	80	*
Lead	6	0.031	"	2.46	3.73	92	75-125	0.6	80	
Copper	3.8	0.0806	"	2.46	1.81	81	75-125	0.7	80	
Cadmium	0.494	0.0259	"	0.493	0.0277	95	75-125	9.1	80	
Arsenic	5.01	0.0855	"	2.46	2.81	89	75-125	2.3	80	
Barium	23.9	0.042	"	4.93	45.9	NR	75-125	39	80	*
<b>MS (L 94516-MS-L606847)</b>			<b>Source: 94516</b>		Prepared: 03/24/2022 Analyzed: 03/29/2022					
Lead	5.96	0.031	mg/Kg	2.33	3.73	96	75-125			
Silver	0.438	0.0067	"	0.466	<0.0067	94	75-125			
Barium	35.5	0.042	"	4.66	45.9	NR	75-125			*
Selenium	4.51	0.103	"	4.66	0.252	91	75-125			
Arsenic	5.13	0.0855	"	2.33	2.81	100	75-125			
Nickel	6.4	0.0633	"	2.33	4.15	97	75-125			
Cadmium	0.451	0.0259	"	0.466	0.0277	91	75-125			
Zinc	37.5	0.534	"	23.3	17.6	85	75-125			
Copper	3.83	0.0806	"	2.33	1.81	87	75-125			
<b>LCS (LCS-L606847)</b>			Prepared: 03/24/2022 Analyzed: 03/29/2022							
Zinc	24	0.534	mg/Kg	25		96	80-120			
Arsenic	2.48	0.0855	"	2.5		99	80-120			
Barium	4.77	0.042	"	5		95	80-120			
Cadmium	0.462	0.0259	"	0.5		92	80-120			
Copper	2.47	0.0806	"	2.5		99	80-120			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

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.

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
64-005-0000-0-00000000-1414250  
Project: Bonanza - State Antelope #14-21

**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, Inc.**

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

**Batch L606847 - 3050B**

**LCS (LCS-L606847)**

Prepared: 03/24/2022 Analyzed: 03/29/2022

Lead	2.39	0.031	mg/Kg	2.5	96	80-120
Nickel	2.44	0.0633	"	2.5	98	80-120
Silver	0.488	0.0067	"	0.5	98	80-120
Selenium	4.9	0.103	"	5	98	80-120

**LRB (LRB-L606847)**

Prepared: 03/24/2022 Analyzed: 03/29/2022

Nickel	ND	0.25	mg/Kg	-
Cadmium	ND	0.25	"	-
Lead	ND	0.25	"	-
Selenium	ND	0.25	"	-
Silver	ND	0.25	"	-
Zinc	ND	2.5	"	-
Arsenic	ND	0.25	"	-
Barium	ND	0.25	"	-
Copper	ND	0.25	"	-

Origins Laboratory, Inc.

Jeff Pelligrini

Jen Pellegrini, Project Manager

*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.*



Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
641685 000040 0000000001 444070  
Project: Bonanza - State Antelope #14-21

**Total Metals by 7196 A - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L607684 -</b>										
<b>DUP (L 94452-DUP)</b>		<b>Source: Y203507-03</b>			Prepared: Analyzed: 03/29/2022					
Chromium, Hexavalent	ND	0.244	mg/Kg		<0.501		-	0	20	
<b>MS (L 94452-MS)</b>		<b>Source: Y203507-03</b>			Prepared: Analyzed: 03/29/2022					
Chromium, Hexavalent	6.61	0.251	mg/Kg	8.24	<0.251	80	75-125			
<b>LCS (LCS)</b>		Prepared: Analyzed: 03/29/2022								
Chromium, Hexavalent	7.02	0.244	mg/Kg	8		88	75-125			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

*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.*

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
646835 333343 3333333333 444676  
Project: Bonanza - State Antelope #14-21

**Total Metals by 7196A - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L607597 -</b>										
<b>DUP (L 93944-DUP)</b>		<b>Source: 93944</b>			Prepared: Analyzed: 03/29/2022					
Chromium, Hexavalent	ND	0.492	mg/Kg		<1.01	-	0	20		
<b>MS (L 93944-MS)</b>		<b>Source: 93944</b>			Prepared: Analyzed: 03/29/2022					
Chromium, Hexavalent	5.85	0.497	mg/Kg	8.16	<0.497	72	75-125			*
<b>LRB (LRB)</b>					Prepared: Analyzed: 03/29/2022					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

*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.*

Apex Companies, LLC  
4150 Darley Avenue, Suite 1  
Boulder CO 80305

Maggie Graham  
Project Number:  
6416075 000040 0000000001 444075  
Project: Bonanza - State Antelope #14-21

### Notes and Definitions

U Sample is Non-Detect.

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.

J Estimated Value. Analyte below reported quantitation limit.

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



Jen Pellegrini, Project Manager

*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.*