



CRESTONE PEAK  
RESOURCES

# Topographic Location Map

**Rush #4-65 29-30 /1AH Pad**



30

31

32

33

34

Murphy

Sene

Creek

Creek

Coal

Radio  
Towers

Δ Buck  
BM 5814

Water  
Tank

Gravel  
Pits

Gravel  
Pit

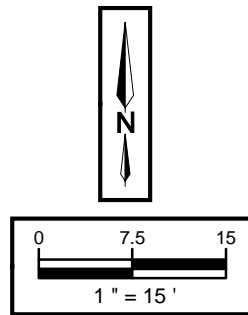


**Crestone Peak Resources  
Rush North Spill #2  
COGCC Location ID: 471001  
Site Diagram**

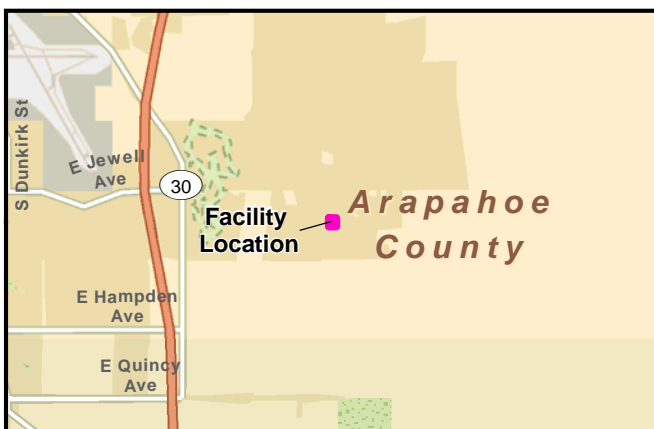
Legal Description: SWNW, Sec 28, T4S R65W  
County: Arapahoe  
Land Use: Non-cropland  
Topography: 3-9% Slopes  
Run-Off Risk: Medium  
Soil Type: Renohill-Buick loams  
Receiving Waters: Coal Creek

PID: photoionization detector value  
ppm: parts per million

- Soil Sample - Laboratory Analysis (3/21/2022)
- ▲ Soil Sample - Field-Screen Only (3/21/2022)
- ▭ Excavation Extent (3/21/2022)



Sample ID	Latitude NAD83	Longitude NAD83	Sample ID	Latitude NAD83	Longitude NAD83
N01@2"	39.675116	-104.675513	W01@2"	39.675113	-104.675525
N02@2"	39.675126	-104.675506	W02@2"	39.675116	-104.675538
E01@2"	39.675106	-104.675514	BG01@6"	39.674915	-104.675481
E02@2"	39.675099	-104.675505	S01@2"	39.675103	-104.675526
S02@2"	39.675094	-104.675535	B01@2"	39.675110	-104.675520



Sample Date	Sample ID	Organic Compounds in Soils (mg/kg)							Soil Suitability for Reclamation				
		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	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)
3/21/2022	S01@2"	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067	0.712	0.910	7.98	<0.0996
3/21/2022	B01@2"	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067	0.497	2.28	8.30	<0.0994
3/21/2022	BG01@6"	NA	NA	NA	NA	NA	NA	NA	NA	1.51	3.27	7.95	0.200

Spatial data collected for this project was acquired using a GPS with submeter accuracy. Illustration discrepancies may be present in this diagram due to the inherent limitations of data accuracy for both project data and the underlying aerial imagery. To accurately reflect field conditions, illustrated data may have been manually corrected in order to fit with the aerial imagery reference points and other collected data points.



**Description:**

Spill location peripheral piping and separator related to the Cottonwood Creek # 4-65 28-27 3AH wellhead



**Description:**

Source area sample B01@2" location.



**Description:**

Southern extent sample S01@2" location



**Description:**

Northern extent screening sample N01@2" location



**Description:**

Eastern extent screening sample E01@2" location



Latitude: 39.675126  
Longitude: -104.675485  
Elevation: 1723.11±3 m  
Accuracy: 3.8 m  
Azimuth: 280° (W)  
Pitch: -19.9° (1.4°)  
Time: 03-21-2022 15:17  
Note: Rush North

*Powered by AngleCam*

**Description:**

Sampling area overview



**Laboratory Results Summary Table**  
**Rush 4-65-29-30 #1AH**  
**Soil Samples - 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)
Site Specific Background -->													
Location	Sample Date	Sample ID	TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	TPH-GRO (C6-C10) Low Fraction	TPH-DRO (C10-C28) High Fraction	TPH-ORO (C28-C36) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes (sum of o-, m- and p- isomers = total xylenes)	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene
Rush 4-65-29-3 #1AH	3/21/2022	S01@2"	<100	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067
Rush 4-65-29-3 #1AH	3/21/2022	B01@2"	<100	<0.200	<25.0	<100	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067

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

Light Blue Highlight - exceedance of protection of groundwater 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**  
**Rush 4-65-29-30 #1AH**  
**Soil Samples - PAHs**

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)
Site Specific Background -->																
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
Rush 4-65-29-3 #1AH	3/21/2022	S01@2"	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<b>0.000581</b>	<0.00067	<b>0.0013</b>	<0.00067	<0.00067	<b>0.00103</b>	<0.00067	<0.00067	<0.00067
Rush 4-65-29-3 #1AH	3/21/2022	B01@2"	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<b>0.000745</b>	<b>0.000954</b>	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<b>0.000782</b>

**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

Light Blue Highlight - exceedance of protection of groundwater 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**  
**Rush 4-65-29-30 #1AH**  
**Soil Samples - Inorganics**

Location	Sample Date	Sample ID	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 -->					2.1375	182.5						0.76625		
			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	
Rush 4-65-29-3 #1AH	3/21/2022	S01@2"	0.712	0.910	7.98	<0.0996	1.06	40.4	0.0284	<0.5	13.9	2.47	7.19	0.622	0.0106	52.8	
Rush 4-65-29-3 #1AH	3/21/2022	B01@2"	0.497	2.28	8.30	<0.0994	1.21	63.5	0.053	<0.5	16.2	3.76	6.54	0.735	0.0152	39.9	
Rush 4-65-29-3 #1AH	3/21/2022	BG01@6"	1.51	3.27	7.95	0.200	1.71	146	0.0867	<0.5	22.7	4.98	7.28	0.613	0.0197	51	

**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

Light Blue Highlight - exceedance of protection of groundwater 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



April 01, 2022

Apex Companies, LLC

Maggie Graham

4150 Darley Avenue, Suite 1

Boulder CO 80305

Project Name - Rush North

Project Number - 8520.302

Attached are your analytical results for Rush North received by Origins Laboratory, Inc. March 21, 2022. This project is associated with Origins project number Y203504-03.

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: 8520.302  
Project: Rush North

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S01@2"	Y203504-03	Soil	March 21, 2022 14:30	03/21/2022 17:41
B01@2"	Y203504-05	Soil	March 21, 2022 14:40	03/21/2022 17:41
BG01@6"	Y203504-06	Soil	March 21, 2022 15:05	03/21/2022 17:41

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.*

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

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

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page 1 of 1

ORIGINS  
 LABORATORY, INC

Client: CPR/CIVIL Apex  
 Project Manager: Maggie Graham  
 Project Name: Rush North  
 Project Number: 8520.302  
 Samples Collected By: Adam Vung  
Bill to CPR/CIVIL


Telephone Number: \_\_\_\_\_  
 Email Address: Maggie.Graham@originslab.com

Sample ID Description	Date Sampled	Time Sampled	# of Containers				Preservative			Matrix			Analysis			Sample Instructions	Turnaround Time: 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/>	
			Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa #	Other	Fulligs	Suite	PHS	BAR	EST			Hold
N61024	3-21-22	14:20	2						X									
E61024		14:25	2						X									
S61024		14:30	2						X									
W61024		14:35	2						X									
B61024		14:40	2						X									
B61026		15:05	2						X									

Relinquished By: [Signature] Date: 3-21-22 Time: 17:41  
 Relinquished By: [Signature] Date: 3-21-22 Time: 17:41

Temp Received: 5.9  
 Date Results Needed: \_\_\_\_\_

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

Origins Laboratory, Inc.  


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

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1203504

Client: Apex

Client Project ID: Rush North

Checklist Completed by: AKH

Shipped Via: HD  
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 3/21/12

Airbill #: AAA

Matrix(s) Received: (Check all that apply):  Soil/Solid  Water  Other: \_\_\_\_\_

Cooler Number/Temperature: 1/57 °C 1 °C 1 °C 1 °C (Describe)

Thermometer ID: TCC-1

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"/>			
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? <b>If yes, contact client and note in narrative.</b>			<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.

[Signature]  
 Reviewed by (Project Manager)

3/21/12  
 Date/Time Reviewed

Origins Laboratory, Inc.

[Signature]

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

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**S01@2"**

**3/21/2022 2:30:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y203504-03 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND		0.0996	mg/L	1	B2C2209	03/22/2022	03/23/2022	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2C2119	03/21/2022	03/22/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: <i>o</i> -Terphenyl	87.3 %		50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2C2120	03/21/2022	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	98.3 %		70-130			"	"	"	
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Origins Laboratory, Inc.



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 4150 Darley Avenue, Suite 1  
 Boulder CO 80305

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

S01@2"

3/21/2022 2:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
 Y203504-03 (Soil)

**GBTEX+TMBs by 8260D**

Surrogate: Toluene-d8	101 %		70-130			B2C21 20	03/21/2022	03/22/2022	
Surrogate: 4-Bromofluorobenzene	96.5 %		70-130			"	"	"	

**Metals by Saturated Paste by EPA 6010**

Calcium	3.19		0.499	meq/L	10	[CALC]	03/22/2022	03/23/2022	
Magnesium	2.25		0.823	"	"	"	"	"	
Sodium	1.50		0.435	"	"	"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L607268	03/28/2022	03/29/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"	
Anthracene	ND	0.000334	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	0.000581	0.000468	0.00067	"	"	"	"	"	J
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"	
Chrysene	ND	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	0.0013	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	ND	0.000394	0.00067	"	"	"	"	"	

Origins Laboratory, Inc.



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 4150 Darley Avenue, Suite 1  
 Boulder CO 80305

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**S01@2"**

**3/21/2022 2:30:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y203504-03 (Soil)**

**PAH by 8270D SIM**

Fluorene	ND	0.000286	0.00067	mg/Kg	1	L607268	03/28/2022	03/29/2022	
Indeno(1,2,3-cd)pyrene	<b>0.00103</b>	<b>0.000627</b>	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	
Pyrene	ND	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	79.8 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	84.6 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	65.9 %		29-110			"	"	"	

**pH in Soil by 9045D**

pH	<b>7.98</b>			pH Units	1	B2C2212	03/22/2022	03/23/2022	
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**SAR by 20B Saturated Paste**

SAR	<b>0.910</b>			SAR	1	B2C2206	03/22/2022	03/23/2022	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	<b>0.712</b>		0.00500	mmhos/cm	1	B2C2215	03/22/2022	03/23/2022	
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**Total Metals by 6020B**

Arsenic	<b>1.06</b>	<b>0.0855</b>	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
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Origins Laboratory, Inc.



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

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**S01@2"**

**3/21/2022 2:30:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y203504-03 (Soil)**

**Total Metals by 6020B**

Barium	40.4	0.042	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
Cadmium	0.0284	0.0259	0.25	"	"	"	"	"	J
Copper	13.9	0.0806	0.25	"	"	"	"	"	
Lead	2.47	0.031	0.25	"	"	"	"	"	
Nickel	7.19	0.0633	0.25	"	"	"	"	"	
Selenium	0.622	0.103	0.25	"	"	"	"	"	
Silver	0.0106	0.0067	0.25	"	"	"	"	"	J
Zinc	52.8	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L607685	03/21/2022	03/29/2022	
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Origins Laboratory, Inc.



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

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**B01@2"**

**3/21/2022 2:40:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y203504-05 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND		0.0994	mg/L	1	B2C2209	03/22/2022	03/23/2022	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2C2119	03/21/2022	03/22/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: <i>o</i> -Terphenyl	89.0 %		50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2C2120	03/21/2022	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	95.9 %		70-130			"	"	"	
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 Boulder CO 80305

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**B01@2"**

**3/21/2022 2:40:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y203504-05 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: Toluene-d8	102 %		70-130			B2C21 20	03/21/2022	03/22/2022	
Surrogate: 4-Bromofluorobenzene	98.6 %		70-130			"	"	"	

**Metals by Saturated Paste by EPA 6010**

Calcium	<b>1.44</b>		0.499	meq/L	10	[CALC]	03/22/2022	03/23/2022	
Magnesium	<b>0.823</b>		0.823	"	"	"	"	"	
Sodium	<b>2.42</b>		0.435	"	"	"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L607268	03/28/2022	03/29/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"	
Anthracene	ND	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	<b>0.000745</b>	<b>0.000624</b>	0.00067	"	"	"	"	"	B
Dibenz(a,h)anthracene	<b>0.000954</b>	<b>0.000614</b>	0.00067	"	"	"	"	"	
Fluoranthene	ND	0.000394	0.00067	"	"	"	"	"	

Origins Laboratory, Inc.



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Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**B01@2"**

**3/21/2022 2:40:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y203504-05 (Soil)**

**PAH by 8270D SIM**

Fluorene	ND	0.000286	0.00067	mg/Kg	1	L607268	03/28/2022	03/29/2022	
Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	
Pyrene	<b>0.000782</b>	<b>0.000643</b>	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	68.2 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	74.2 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	59.1 %		29-110			"	"	"	

**pH in Soil by 9045D**

pH	<b>8.30</b>			pH Units	1	B2C2212	03/22/2022	03/23/2022	
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**SAR by 20B Saturated Paste**

SAR	<b>2.28</b>			SAR	1	B2C2206	03/22/2022	03/23/2022	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	<b>0.497</b>		0.00500	mmhos/cm	1	B2C2215	03/22/2022	03/23/2022	
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**Total Metals by 6020B**

Arsenic	<b>1.21</b>	<b>0.0855</b>	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
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Origins Laboratory, Inc.



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 Boulder CO 80305

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**B01@2"**

**3/21/2022 2:40:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y203504-05 (Soil)**

**Total Metals by 6020B**

Barium	63.5	0.042	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
Cadmium	0.053	0.0259	0.25	"	"	"	"	"	J
Copper	16.2	0.0806	0.25	"	"	"	"	"	
Lead	3.76	0.031	0.25	"	"	"	"	"	
Nickel	6.54	0.0633	0.25	"	"	"	"	"	
Selenium	0.735	0.103	0.25	"	"	"	"	"	
Silver	0.0152	0.0067	0.25	"	"	"	"	"	J
Zinc	39.9	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L607685	03/21/2022	03/29/2022	
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 Boulder CO 80305

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**BG01@6"**

**3/21/2022 3:05:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y203504-06 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.200		0.0998	mg/L	1	B2C2209	03/22/2022	03/23/2022	
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**Metals by Saturated Paste by EPA 6010**

Calcium	6.68		0.499	meq/L	10	[CALC]	03/22/2022	03/23/2022	
Magnesium	3.31		0.823	"	"	"	"	"	
Sodium	7.30		0.435	"	"	"	"	"	

**pH in Soil by 9045D**

pH	7.95			pH Units	1	B2C2212	03/22/2022	03/23/2022	
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**SAR by 20B Saturated Paste**

SAR	3.27			SAR	1	B2C2206	03/22/2022	03/23/2022	
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	1.51		0.00500	mmhos/cm	1	B2C2215	03/22/2022	03/23/2022	
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**Total Metals by 6020B**

Arsenic	1.71	0.0855	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
Barium	146	0.042	0.25	"	"	"	"	"	
Cadmium	0.0867	0.0259	0.25	"	"	"	"	"	J
Copper	22.7	0.0806	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



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 Boulder CO 80305

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**BG01@6"**

**3/21/2022 3:05:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Waypoint Analytical, Inc.**  
**Y203504-06 (Soil)**

**Total Metals by 6020B**

Lead	4.98	0.031	0.25	mg/Kg	5	L606847	03/24/2022	03/29/2022	
Nickel	7.28	0.0633	0.25	"	"	"	"	"	
Selenium	0.613	0.103	0.25	"	"	"	"	"	
Silver	0.0197	0.0067	0.25	"	"	"	"	"	J
Zinc	51	0.534	2.5	"	"	"	"	"	

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L607685	03/21/2022	03/29/2022	
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Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**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
<b>Batch B2C2119 - EPA 3550B</b>										
<b>Blank (B2C2119-BLK1)</b>										
					Prepared: 03/21/2022 Analyzed: 03/22/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	18		"	24.9		71.6	50-150			

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 Boulder CO 80305

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**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
<b>Batch B2C2119 - EPA 3550B</b>										
<b>LCS (B2C2119-BS1)</b>					Prepared: 03/21/2022 Analyzed: 03/22/2022					
Diesel (C10-C28)	775	50.0	mg/kg	1000		77.5	70-130			
Residual Range Organics (C28-C40)	814	200	"	1000		81.4	70-130			
Surrogate: o-Terphenyl	41		"	49.8		81.7	50-150			

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Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**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
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**Batch B2C2119 - EPA 3550B**

<b>Matrix Spike (B2C2119-MS1)</b>	<b>Source: Y203498-01</b>			Prepared: 03/21/2022 Analyzed: 03/22/2022						
Diesel (C10-C28)	915	50.0	mg/kg	1000	ND	91.5	70-130			
Residual Range Organics (C28-C40)	954	200	"	1000	ND	95.4	70-130			
Surrogate: o-Terphenyl	46		"	49.8		91.9	50-150			

Origins Laboratory, Inc.



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Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**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
<b>Batch B2C2119 - EPA 3550B</b>										
<b>Matrix Spike Dup (B2C2119-MSD1)</b>					<b>Source: Y203498-01</b>					Prepared: 03/21/2022 Analyzed: 03/22/2022
Diesel (C10-C28)	875	50.0	mg/kg	1000	ND	87.5	70-130	4.48	35	
Residual Range Organics (C28-C40)	978	200	"	1000	ND	97.8	70-130	2.54	35	
Surrogate: o-Terphenyl	46		"	49.8		92.2	50-150			

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**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
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**Batch B2C2120 - EPA 5030 (soil)**

**Blank (B2C2120-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	92.8		70-130			
Surrogate: Toluene-d8	0.12		"	0.125	97.3		70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125	101		70-130			

Origins Laboratory, Inc.



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Maggie Graham  
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 Project: Rush North

**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
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**Batch B2C2120 - EPA 5030 (soil)**

**LCS (B2C2120-BS1)**

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

1,2,4-Trimethylbenzene	0.102	0.00200	mg/kg	0.100		102	70-130			
1,3,5-Trimethylbenzene	0.103	0.00200	"	0.100		103	70-130			
Benzene	0.107	0.00200	"	0.100		107	70-130			
Ethylbenzene	0.103	0.00200	"	0.100		103	70-130			
Naphthalene	0.106	0.0100	"	0.100		106	70-130			
Toluene	0.103	0.00200	"	0.100		103	70-130			
o-Xylene	0.103	0.00200	"	0.100		103	70-130			
m,p-Xylene	0.209	0.00400	"	0.200		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		93.9	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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 Project: Rush North

**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
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Batch B2C2120 - EPA 5030 (soil)

Matrix Spike (B2C2120-MS1)	Source: Y203498-01			Prepared: 03/21/2022 Analyzed: 03/21/2022						
1,2,4-Trimethylbenzene	0.0754	0.00200	mg/kg	0.100	ND	75.4	70-130			
1,3,5-Trimethylbenzene	0.0751	0.00200	"	0.100	ND	75.1	70-130			
Benzene	0.0837	0.00200	"	0.100	ND	83.7	70-130			
Ethylbenzene	0.0796	0.00200	"	0.100	ND	79.6	70-130			
Naphthalene	0.0787	0.0100	"	0.100	0.00234	76.4	70-130			
Toluene	0.0791	0.00200	"	0.100	ND	79.1	70-130			
o-Xylene	0.0794	0.00200	"	0.100	ND	79.4	70-130			
m,p-Xylene	0.161	0.00400	"	0.200	ND	80.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

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**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
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Batch B2C2120 - EPA 5030 (soil)

Matrix Spike Dup (B2C2120-MSD1)	Source: Y203498-01			Prepared: 03/21/2022 Analyzed: 03/22/2022						
1,2,4-Trimethylbenzene	0.145	0.00200	mg/kg	0.100	ND	145	70-130	63.3	20	QM-07
1,3,5-Trimethylbenzene	0.145	0.00200	"	0.100	ND	145	70-130	63.4	20	QM-07
Benzene	0.141	0.00200	"	0.100	ND	141	70-130	50.8	20	QM-07
Ethylbenzene	0.145	0.00200	"	0.100	ND	145	70-130	58.4	20	QM-07
Naphthalene	0.143	0.0100	"	0.100	0.00234	141	70-130	58.2	20	QM-07
Toluene	0.145	0.00200	"	0.100	ND	145	70-130	58.8	20	QM-07
o-Xylene	0.146	0.00200	"	0.100	ND	146	70-130	58.9	20	QM-07
m,p-Xylene	0.287	0.00400	"	0.200	ND	143	70-130	56.3	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		97.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

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Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**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
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Batch L607268 - 3550B

MSD (L 94495-MSD-L607268)		Source: 94495			Prepared: 03/28/2022 Analyzed: 03/29/2022					
Pyrene	0.13	0.000643	mg/Kg	0.164	<0.000643	79.2	30-130	7.4	30	
Dibenz(a,h)anthracene	0.129	0.000614	"	0.164	<0.000614	78.6	30-130	18.3	30	
Fluoranthene	0.13	0.000394	"	0.164	<0.000394	79.2	30-130	8.8	30	
Fluorene	0.124	0.000286	"	0.164	<0.000286	75.6	30-130	5.4	30	
Indeno(1,2,3-cd)pyrene	0.12	0.000627	"	0.164	<0.000627	73.1	30-130	18.8	30	
Chrysene	0.116	0.000624	"	0.164	<0.000624	70.7	30-130	9	30	
Acenaphthene	0.111	0.000304	"	0.164	<0.000304	67.6	30-130	4.4	30	
Naphthalene	0.111	0.000484	"	0.164	<0.000484	67.6	30-130	5.2	30	
Benzo(b)fluoranthene	0.111	0.000585	"	0.164	<0.000585	67.6	30-130	16.5	30	
Benzo(a)pyrene	0.118	0.000468	"	0.164	<0.000468	71.9	30-130	11.9	30	
Anthracene	0.13	0.000334	"	0.164	<0.000334	79.2	30-130	5.9	30	
2-Methylnaphthalene	0.118	0.000645	"	0.164	<0.000645	71.9	30-130	3.3	30	
1-Methylnaphthalene	0.117	0.000364	"	0.164	<0.000364	71.3	30-130	5	30	
Benzo(k)fluoranthene	0.0907	0.000437	"	0.164	<0.000437	55.3	30-130	21	30	
Benzo(a)anthracene	0.124	0.000493	"	0.164	<0.000493	75.6	30-130	9.9	30	
Surrogate: Nitrobenzene-d5	58.9		"	0.329	217	58.9	29-110			
Surrogate: 4-Terphenyl-d14	82.6		"	0.329	268	82.6	33-122			
Surrogate: 2-Fluorobiphenyl	71.4		"	0.329	249	71.4	33-115			

MS (L 94495-MS-L607268)		Source: 94495			Prepared: 03/28/2022 Analyzed: 03/29/2022					
1-Methylnaphthalene	0.123	0.000364	mg/Kg	0.166	<0.000364	74	30-130			
Benzo(b)fluoranthene	0.131	0.000585	"	0.166	<0.000585	78.9	30-130			
Benzo(a)pyrene	0.133	0.000468	"	0.166	<0.000468	80.1	30-130			
Benzo(a)anthracene	0.137	0.000493	"	0.166	<0.000493	82.5	30-130			
Anthracene	0.138	0.000334	"	0.166	<0.000334	83.1	30-130			
Acenaphthene	0.116	0.000304	"	0.166	<0.000304	69.8	30-130			
2-Methylnaphthalene	0.122	0.000645	"	0.166	<0.000645	73.4	30-130			

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

Maggie Graham  
 Project Number: 8520.302  
 Project: Rush North

**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
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**Batch L607268 - 3550B**

MS (L 94495-MS-L607268)	Source: 94495		Prepared: 03/28/2022 Analyzed: 03/29/2022							
Fluoranthene	0.142	0.000394	mg/Kg	0.166	<0.000394	85.5	30-130			
Dibenz(a,h)anthracene	0.155	0.000614	"	0.166	<0.000614	93.3	30-130			
Fluorene	0.131	0.000286	"	0.166	<0.000286	78.9	30-130			
Indeno(1,2,3-cd)pyrene	0.145	0.000627	"	0.166	<0.000627	87.3	30-130			
Naphthalene	0.117	0.000484	"	0.166	<0.000484	70.4	30-130			
Pyrene	0.14	0.000643	"	0.166	<0.000643	84.3	30-130			
Benzo(k)fluoranthene	0.112	0.000437	"	0.166	<0.000437	67.4	30-130			
Chrysene	0.127	0.000624	"	0.166	<0.000624	76.5	30-130			
Surrogate: 4-Terphenyl-d14	87.3		"	0.331	268	87.3	33-122			
Surrogate: 2-Fluorobiphenyl	73.4		"	0.331	249	73.4	33-115			
Surrogate: Nitrobenzene-d5	61		"	0.331	217	61	29-110			

LCS (LCS-L607268)	Prepared: 03/28/2022 Analyzed: 03/29/2022									
Fluorene	0.142	0.000286	mg/Kg	0.167		85	30-130			
2-Methylnaphthalene	0.134	0.000645	"	0.167		80.2	30-130			
Acenaphthene	0.125	0.000304	"	0.167		74.8	30-130			
Benzo(a)anthracene	0.141	0.000493	"	0.167		84.4	30-130			
Benzo(a)pyrene	0.135	0.000468	"	0.167		80.8	30-130			
Benzo(b)fluoranthene	0.133	0.000585	"	0.167		79.6	30-130			
Benzo(k)fluoranthene	0.107	0.000437	"	0.167		64	30-130			
Chrysene	0.132	0.000624	"	0.167		79	30-130			
1-Methylnaphthalene	0.133	0.000364	"	0.167		79.6	30-130			
Fluoranthene	0.145	0.000394	"	0.167		86.8	30-130			
Indeno(1,2,3-cd)pyrene	0.134	0.000627	"	0.167		80.2	30-130			
Naphthalene	0.13	0.000484	"	0.167		77.8	30-130			
Pyrene	0.145	0.000643	"	0.167		86.8	30-130			
Dibenz(a,h)anthracene	0.147	0.000614	"	0.167		88	30-130			

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 Project: Rush North

**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
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**Batch L607268 - 3550B**

**LCS (LCS-L607268)**

Prepared: 03/28/2022 Analyzed: 03/29/2022

Anthracene	0.147	0.000334	mg/Kg	0.167		88	30-130			
Surrogate: 2-Fluorobiphenyl	78.9		"	0.333		78.9	33-115			
Surrogate: 4-Terphenyl-d14	84.6		"	0.333		84.6	33-122			
Surrogate: Nitrobenzene-d5	58.5		"	0.333		58.5	29-110			

**LRB (LRB-L607268)**

Prepared: 03/28/2022 Analyzed: 03/29/2022

Acenaphthene	ND	0.00067	mg/Kg				-			
Pyrene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Chrysene	0.00191	0.00067	"				-			*
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Surrogate: 2-Fluorobiphenyl	64.8		"	0.333		64.8	33-115			
Surrogate: 4-Terphenyl-d14	68.7		"	0.333		68.7	33-122			
Surrogate: Nitrobenzene-d5	54		"	0.333		54	29-110			

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 Project: Rush North

**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
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**Batch L606847 - 3050B**

<b>MSD (L 94516-MSD-L606847)</b>		<b>Source: 94516</b>			Prepared: 03/24/2022 Analyzed: 03/29/2022					
Barium	23.9	0.042	mg/Kg	4.93	45.9	NR	75-125	39	80	*
Copper	3.8	0.0806	"	2.46	1.81	81	75-125	0.7	80	
Arsenic	5.01	0.0855	"	2.46	2.81	89	75-125	2.3	80	
Cadmium	0.494	0.0259	"	0.493	0.0277	95	75-125	9.1	80	
Nickel	5.91	0.0633	"	2.46	4.15	71	75-125	7.9	80	*
Selenium	5.04	0.103	"	4.93	0.252	97	75-125	11	80	
Silver	0.492	0.0067	"	0.493	<0.0067	100	75-125	11.6	80	
Zinc	37.5	0.534	"	24.6	17.6	81	75-125	0	80	
Lead	6	0.031	"	2.46	3.73	92	75-125	0.6	80	

<b>MS (L 94516-MS-L606847)</b>		<b>Source: 94516</b>			Prepared: 03/24/2022 Analyzed: 03/29/2022					
Copper	3.83	0.0806	mg/Kg	2.33	1.81	87	75-125			
Lead	5.96	0.031	"	2.33	3.73	96	75-125			
Nickel	6.4	0.0633	"	2.33	4.15	97	75-125			
Selenium	4.51	0.103	"	4.66	0.252	91	75-125			
Silver	0.438	0.0067	"	0.466	<0.0067	94	75-125			
Cadmium	0.451	0.0259	"	0.466	0.0277	91	75-125			
Barium	35.5	0.042	"	4.66	45.9	NR	75-125			*
Arsenic	5.13	0.0855	"	2.33	2.81	100	75-125			
Zinc	37.5	0.534	"	23.3	17.6	85	75-125			

<b>LCS (LCS-L606847)</b>					Prepared: 03/24/2022 Analyzed: 03/29/2022					
Arsenic	2.48	0.0855	mg/Kg	2.5		99	80-120			
Selenium	4.9	0.103	"	5		98	80-120			
Silver	0.488	0.0067	"	0.5		98	80-120			
Zinc	24	0.534	"	25		96	80-120			
Lead	2.39	0.031	"	2.5		96	80-120			

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Maggie Graham  
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 Project: Rush North

**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
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**Batch L606847 - 3050B**

**LCS (LCS-L606847)**

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

Copper	2.47	0.0806	mg/Kg	2.5		99	80-120			
Nickel	2.44	0.0633	"	2.5		98	80-120			
Barium	4.77	0.042	"	5		95	80-120			
Cadmium	0.462	0.0259	"	0.5		92	80-120			

**LRB (LRB-L606847)**

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

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

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 Project: Rush North

**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 L607685 -</b>										
<b>DUP (L 94504-DUP)</b>		<b>Source: 94504</b>			Prepared: Analyzed: 03/29/2022					
Chromium, Hexavalent	ND	0.244	mg/Kg		<0.500		-	0	20	
<b>MS (L 94504-MS)</b>		<b>Source: 94504</b>			Prepared: Analyzed: 03/29/2022					
Chromium, Hexavalent	7.29	0.253	mg/Kg	8.31	<0.253	88	75-125			
<b>LCS (LCS)</b>		Prepared: Analyzed: 03/29/2022								
Chromium, Hexavalent	7.43	0.244	mg/Kg	8		93	75-125			
<b>LRB (LRB)</b>		Prepared: Analyzed: 03/29/2022								
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

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Boulder CO 80305

Maggie Graham  
Project Number: 8520.302  
Project: Rush North

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**Notes and Definitions**

- U Sample is Non-Detect.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- J Estimated Value. Analyte below reported quantitation limit.
- B Analyte detected in associated method blank.
- \* 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.

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