

# Flowline Closure Checklist

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

Additional Attachments:		Tank Battery Closure		Wellhead Closure		Pit Closure		Partially Buried Vault Closure
Site Name & COGCC Facility Number: Huntsman G 13-10		Date: 1/26/2023						Remediation Project #: 25096
Associated Wells:		Age of Site:						Number of Photos Attached: 5
Starting point: (GPS coordinates and descriptions) 40.310807,-104.608761								
End point: (GPS coordinates and descriptions) 40.312136, -104.608378								
USCS Soil Type: Poorly Graded Sand - SP					Estimated Depth to Groundwater: >5'			
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed								
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed								
Flowlines								
Flowline type	Oil/Water/Gas							
Depth	5'							
Age								
Length	517'							
Construction Material	Steel							
Were flowlines pulled?	Yes							
Visual Integrity of lines	Good							
Visual impacts if trenched	NA							
PID Readings if trenched	NA							
Sample taken? Location/Sample ID#	Yes, see below							
Photo Number(s)	1 - 5							
Other observations regarding on location flowlines: Flowline sampled along flowline path (FL01-C@4' through FL01-E@3.5') Statring at well head (FL01-A@4') and ending at separator (FL01-B@5'). Flowline was abandoned in place from FL01-E@3.5' to FL01-B@5'.								
Summary								
Was impacted soil identified? No Yes - less than 10 cubic yards Yes - more than 10 cubic yards								
Total number of samples field screened: 5					Total number of samples collected: 5			
Highest PID Reading: 0.0					Total number of samples submitted to lab for analysis: 3			
If more than 10 cubic yards of impacted soil were observed:								
Vertical extent:					Estimated spill volume:			
Lateral extent:					Volume of soil removed:			
Is additional investigation required?								
Was groundwater encountered during the investigation? No Yes - not impacted or in contact with impacted soils Yes - groundwater impacted and/or in contact with impacted soils								
Measured depth to groundwater:					Was remedial groundwater removal conducted? Yes No			
Date Groundwater was encountered:					Commencement date of removal:			
Sheen on groundwater? Yes No					Volume of groundwater removed prior to sampling:			
Free product observed? Yes No					Volume of groundwater removed post sampling:			
Total number of samples collected:					Total Volume of groundwater removed:			
Total number of samples submitted to lab for analysis:								

## Photographic Log



**Equipment ID:** FL01-A@4'

**Equipment Type:** Flowline

**Material:** Steel

**Volume:**

**Contents:** Oil/Gas/Water

**Notes/Conditions:**



**Equipment ID:** FL01-B@5'

**Equipment Type:** Flowline

**Material:** Steel

**Volume:**

**Contents:** Oil/Gas/Water

**Notes/Conditions:** Abandonment ends here



## Photographic Log



**Equipment ID:** FL01-C@4'

**Equipment Type:** Flowline

**Material:** Steel

**Volume:**

**Contents:** Oil/Gas/Water

**Notes/Conditions:**



**Equipment ID:** FL01-D@4'

**Equipment Type:** Flowline

**Material:** Steel


**Volume:**

**Contents:** Oil/Gas/Water

**Notes/Conditions:**



## Photographic Log

									
						Equipment ID: FL01-E@3.5'		Equipment Type: Flowline	
						Material: Steel	Volume:	Contents: Oil/Gas/Water	
						Notes/Conditions: Abandonment starts here			
Equipment ID: FL01-F@		Equipment Type:							
Material:	Volume:	Contents:							
Notes/Conditions:									

**TABLE 1**  
**SOIL SAMPLE LOCATIONS**  
**NOBLE ENERGY, INC. - HUNTSMAN G13-10 FL**

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude <sup>1</sup>	Longitude	PDOP
FL01-A@4'	01/26/23	0.0	No Staining	No Odor	Lab	40.31080794	-104.6087751	0.9
FL01-B@5'	01/26/23	0.0	No Staining	No Odor	Lab	40.31213996	-104.6083989	1.0
FL01-C@4'	01/26/23	0.0	No Staining	No Odor	Grab	40.31130729	-104.6086742	1.0
FL01-D@4'	01/26/23	0.0	No Staining	No Odor	Grab	40.31172853	-104.6085679	1.0
FL01-E@3.5'	01/26/23	0.0	No Staining	No Odor	Lab	40.31202207	-104.6084902	1.0

Notes:

PID = Photo-ionization detector

ppm = parts per million

PDOP = Position dilution of precision

HC = Hydrocarbon

1.) Latitude and longitude coordinates will be provided in decimal degrees with an accuracy and precision of 5 decimals of a degree using the North American Datum ("NAD") of 1983

TABLE 2  
SOIL ANALYTICAL DATA  
NOBLE ENERGY, INC. - HUNTSMAN G13-10 FL

Soil Sample ID	Date	<sup>1</sup> Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4 - TMB (mg/kg)	1,3,5 - TMB (mg/kg)	Naphthalene (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL <sup>2</sup>		1.2	490	5.8	58	30	27	2	500			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Protection of Groundwater SSL <sup>2,3</sup>		0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500			0.55	6	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
FL01-A@4'	01/26/23	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.00284	<0.00201	<0.200	<25.0	<100	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00201	<0.00201
FL01-B@5'	01/26/23	<0.00200	<0.00200	<0.00200	<0.00200	0.00322	0.00262	<0.00201	<0.200	<25.0	<100	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00201	<0.00201
FL01-E@3.5'	01/26/23	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00201	<0.200	<25.0	<100	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00201	<0.00201

Soil Sample ID	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
Residential SSL <sup>2</sup>		6 - 8.3	<6	<4mmhos/cm	2
FL01-A@4'	01/26/23	7.61	1.72	0.812	0.247
FL01-B@5'	01/26/23	8.25	0.303	0.261	0.0653
FL01-E@3.5'	01/26/23	8.29	4.76	2.42	1.63

Notes:

1. Compounds referenced from 2 CCR 404-1, Table 915-1, effective January 15, 2021.

2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.

3. SSLs are applicable if a pathway for communication with groundwater is present.

Definitions:

COGCC = Colorado Oil and Gas Conservation Commission

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

mmhos/cm = Millmhos per centimeter

mg/L = Milligrams per liter

< = Analytical result is less than the indicated laboratory reporting limit

Highlighted results are equal to or exceed the COGCC Table 915-1 standard

1,2,4 - TMB = 1,2,4 Trimethylbenzene

1,3,5 - TMB = 1,3,5 Trimethylbenzene

Benz(a) = Benzanthracene

Benzo(b) = Benzo(a)fluoranthene

Benzo(k) = Benzo(a)fluoranthene

Benzo(a) = Benzopyrene

A,H = Dibenzo(a,h)anthracene

1,2,3-CD = Indeno(1,2,3-cd)pyrene

1-M = 1-methylnaphthalene

2-M = 2-methylnaphthalene









February 03, 2023

Tasman Geosciences

Jake Whritenour

6855 West 119th Avenue

Broomfield CO 80020

**Project Name - Noble - Huntsman G13-10**

**Project Number - UWRWE-A2951-ABN**

Attached are your analytical results for Noble - Huntsman G13-10 received by Origins Laboratory, Inc. January 26, 2023. This project is associated with Origins project number Y301432-01.

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



Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-A@4'	Y301432-01	Soil	January 26, 2023 9:19	01/26/2023 12:53
FL01-B@5'	Y301432-02	Soil	January 26, 2023 8:57	01/26/2023 12:53
FL01-E@3.5'	Y301432-03	Soil	January 26, 2023 9:51	01/26/2023 12:53

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

Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

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page 1 of 1

4301432

# ORIGINS

LABORATORY, INC

Client: Noble / Tasman  
Address: \_\_\_\_\_  
Telephone Number: 303-261-6246  
Email Address: JWhritenour@Tasman-geo.com

Project Manager: Jake Whritenour  
Project Name: Huntsman G13-10  
Project Number: UWRWE-A2951-ABN  
Samples Collected By: Stanley Gilbert

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis				Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summ #	Other	VOC-915	TPH-915	PAH-915	
FL01-A64'	1/26/23	09:19	2	X				X				X	X	X	PH, EC, SAR by Saturation
FL01-B65'		08:57	1												
FL01-E635'		09:51	1												
Relinquished By: <u>[Signature]</u>	Date: <u>1/26/23</u>	Time: <u>12:53</u>		Received By: <u>[Signature]</u>	Date: <u>1/26/23</u>	Time: <u>12:53</u>		Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard							
Relinquished By: _____	Date: _____	Time: _____		Received By: _____	Date: _____	Time: _____									

Date Results Needed

Temp Received- 3

Origins Laboratory, Inc.

*Jefe Pellegrini*

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Tasman Geosciences

6855 West 119th Avenue

Broomfield CO 80020

Jake Whritenour

Project Number: UWRWE-A2951-ABN

Project: Noble - Huntsman G13-10

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 4301432

Client: Tasman

Client Project ID: Huntsman G13-10

Checklist Completed by: CHS/IDM

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

Date/time completed: 1/26/23

Airbill #: 534

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

Cooler Number/Temperature: 1 13.0°C 1 °C 1 °C (Describe) °C

Thermometer ID: 7004

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"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input type="checkbox"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation 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 type="checkbox"/>	<input type="checkbox"/>	<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.

Reviewed by (Project Manager) Jen Pellegrini

1/26/23  
Date/Time Reviewed

Origins Laboratory, Inc.

*Jen Pellegrini*

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Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

FL01-A@4'  
1/26/2023 9:19:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y301432-01 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.247	0.0999	mg/L	1	B3A2710	KAP	01/27/2023	01/30/2023	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3A3001	B	01/30/2023	01/30/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	B	"	"	U

Surrogate: o-Terphenyl	85.3 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3A3019	ZZZ	01/30/2023	01/30/2023	U
1,3,5-Trimethylbenzene	0.00284	0.00200	"	"	"	ZZZ	"	"	
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.2 %	70-130			"	"	"	
Surrogate: Toluene-d8	89.5 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.0 %	70-130			"	"	"	

**Metals by Saturated Paste by EPA 6010**

Origins Laboratory, Inc.



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Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

FL01-A@4'  
1/26/2023 9:19:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
Y301432-01 (Soil)

**Metals by Saturated Paste by EPA 6010**

Calcium	ND	0.499	meq/L	10	[CALC]	KAP	01/27/2023	01/30/2023
Magnesium	ND	0.823	"	"	"	KAP	"	"
Sodium	0.682	0.435	"	"	"	KAP	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00201	mg/Kg	1	L661411		01/30/2023	01/31/2023
2-Methylnaphthalene	ND	0.00201	"	"	"		"	"
Acenaphthene	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	ND	0.00067	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"
Fluoranthene	ND	0.00067	"	"	"		"	"
Fluorene	ND	0.00067	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"
Naphthalene	ND	0.00201	"	"	"		"	"

Origins Laboratory, Inc.



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Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

FL01-A@4'

1/26/2023 9:19:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Waypoint Analytical, LLC.**  
Y301432-01 (Soil)

**PAH by 8270D SIM**

Pyrene	ND	0.00067	mg/Kg	1	L661411		01/30/2023	01/31/2023
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Surrogate: 2-Fluorobiphenyl  
Surrogate: 4-Terphenyl-d14  
Surrogate: Nitrobenzene-d5

45.8 %	33-115	"	"	"
56.3 %	33-122	"	"	"
42.8 %	29-110	"	"	"

**pH in Soil by 9045D**

pH	7.61	pH Units	1	B3A2721	HJD	01/27/2023	01/28/2023
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**SAR by 20B Saturated Paste**

SAR	1.72	SAR	1	B3A2706	KAP	01/27/2023	01/30/2023
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.812	0.00500	mmhos/cm	1	B3A2721	HJD	01/27/2023	01/28/2023
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Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager



Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

## FL01-B@5'

1/26/2023 8:57:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y301432-02 (Soil)

### Boron (DTPA Sorbitol)

Boron	0.0653	0.0999	mg/L	1	B3A2710	KAP	01/27/2023	01/30/2023	
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### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3A3001	B	01/30/2023	01/30/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	B	"	"	U

Surrogate: o-Terphenyl	85.9 %	50-150			"	"	"	
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.00322	0.00200	mg/kg	1	B3A3019	ZZZ	01/30/2023	01/30/2023	
1,3,5-Trimethylbenzene	0.00262	0.00200	"	"	"	ZZZ	"	"	
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.7 %	70-130			"	"	"	
Surrogate: Toluene-d8	89.2 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.0 %	70-130			"	"	"	

### Metals by Saturated Paste by EPA 6010

Origins Laboratory, Inc.



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Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

FL01-B@5'

1/26/2023 8:57:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
Y301432-02 (Soil)

**Metals by Saturated Paste by EPA 6010**

Calcium	1.47	0.499	meq/L	10	[CALC]	KAP	01/27/2023	01/30/2023
Magnesium	ND	0.823	"	"	"	KAP	"	"
Sodium	ND	0.435	"	"	"	KAP	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00201	mg/Kg	1	L661411		01/30/2023	01/31/2023
2-Methylnaphthalene	ND	0.00201	"	"	"		"	"
Acenaphthene	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	ND	0.00067	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"
Fluoranthene	ND	0.00067	"	"	"		"	"
Fluorene	ND	0.00067	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"
Naphthalene	ND	0.00201	"	"	"		"	"

Origins Laboratory, Inc.



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Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

## FL01-B@5'

1/26/2023 8:57:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Waypoint Analytical, LLC. Y301432-02 (Soil)

### PAH by 8270D SIM

Pyrene	ND	0.00067	mg/Kg	1	L661411		01/30/2023	01/31/2023
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Surrogate: 2-Fluorobiphenyl	52.9 %	33-115			"	"	"
Surrogate: 4-Terphenyl-d14	66.9 %	33-122			"	"	"
Surrogate: Nitrobenzene-d5	52.6 %	29-110			"	"	"

### pH in Soil by 9045D

pH	8.25		pH Units	1	B3A2721	HJD	01/27/2023	01/28/2023
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### SAR by 20B Saturated Paste

SAR	0.303		SAR	1	B3A2706	KAP	01/27/2023	01/30/2023
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### Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.261	0.00500	mmhos/cm	1	B3A2721	HJD	01/27/2023	01/28/2023
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Jen Pellegrini, Project Manager

Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

FL01-E@3.5'  
1/26/2023 9:51:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y301432-03 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	1.63	0.0999	mg/L	1	B3A2710	KAP	01/27/2023	01/30/2023	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3A3001	B	01/30/2023	01/30/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	B	"	"	U

Surrogate: o-Terphenyl	89.4 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3A3019	ZZZ	01/30/2023	01/30/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.5 %	70-130			"	"	"	
Surrogate: Toluene-d8	89.7 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.7 %	70-130			"	"	"	

**Metals by Saturated Paste by EPA 6010**

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6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

FL01-E@3.5'  
1/26/2023 9:51:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
Y301432-03 (Soil)

**Metals by Saturated Paste by EPA 6010**

Calcium	9.42	0.499	meq/L	10	[CALC]	KAP	01/27/2023	01/30/2023
Magnesium	7.56	0.823	"	"	"	KAP	"	"
Sodium	13.9	0.435	"	"	"	KAP	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00201	mg/Kg	1	L661411		01/30/2023	01/31/2023
2-Methylnaphthalene	ND	0.00201	"	"	"		"	"
Acenaphthene	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	ND	0.00067	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"
Fluoranthene	ND	0.00067	"	"	"		"	"
Fluorene	ND	0.00067	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"
Naphthalene	ND	0.00201	"	"	"		"	"
Pyrene	ND	0.00067	"	"	"		"	"

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6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

FL01-E@3.5'  
1/26/2023 9:51:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Waypoint Analytical, LLC.**  
**Y301432-03 (Soil)**

**PAH by 8270D SIM**

Surrogate: 2-Fluorobiphenyl	55.6 %	33-115			L6614 11	01/30/2023	01/31/2023
Surrogate: 4-Terphenyl-d14	64.9 %	33-122			"	"	"
Surrogate: Nitrobenzene-d5	52 %	29-110			"	"	"

**pH in Soil by 9045D**

pH	8.29	pH Units	1	B3A2721	HJD	01/27/2023	01/28/2023
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**SAR by 20B Saturated Paste**

SAR	4.76	SAR	1	B3A2706	KAP	01/27/2023	01/30/2023
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	2.42	0.00500 mmhos/cm	1	B3A2721	HJD	01/27/2023	01/28/2023
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Jen Pellegrini, Project Manager

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6855 West 119th Avenue  
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Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

## 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 B3A3001 - EPA 3580										
Blank (B3A3001-BLK1)					Prepared: 01/30/2023 Analyzed: 01/30/2023					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	23		"	24.9		92.1	50-150			

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Project: Noble - Huntsman G13-10

## 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 B3A3001 - EPA 3580										
LCS (B3A3001-BS1)					Prepared: 01/30/2023 Analyzed: 01/30/2023					
Diesel (C10-C28)	939	50.0	mg/kg	1000		93.9	70-130			
Residual Range Organics (C28-C40)	898	200	"	1000		89.8	70-130			
Surrogate: o-Terphenyl	46		"	49.8		93.3	50-150			

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Broomfield CO 80020

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Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

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 B3A3001 - EPA 3580										
Matrix Spike (B3A3001-MS1)		Source: Y301432-01			Prepared: 01/30/2023 Analyzed: 01/30/2023					
Diesel (C10-C28)	911	50.0	mg/kg	1000	ND	91.1	70-130			
Residual Range Organics (C28-C40)	866	200	"	1000	ND	86.6	70-130			
Surrogate: o-Terphenyl	43		"	49.8		86.6	50-150			

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Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

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 B3A3001 - EPA 3580										
Matrix Spike Dup (B3A3001-MSD1)		Source: Y301432-01			Prepared: 01/30/2023 Analyzed: 01/30/2023					
Diesel (C10-C28)	903	50.0	mg/kg	1000	ND	90.3	70-130	0.871	35	
Residual Range Organics (C28-C40)	864	200	"	1000	ND	86.4	70-130	0.289	35	
Surrogate: o-Terphenyl	43		"	49.8		86.4	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
Batch B3A3019 - EPA 5030 (soil)										
Blank (B3A3019-BLK1)					Prepared: 01/30/2023 Analyzed: 01/30/2023					
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	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		89.8	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		91.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.4	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

**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 B3A3019 - EPA 5030 (soil)</b>										
<b>LCS (B3A3019-BS1)</b>					Prepared: 01/30/2023 Analyzed: 01/30/2023					
1,2,4-Trimethylbenzene	0.0888	0.00200	mg/kg	0.100		88.8	70-130			
1,3,5-Trimethylbenzene	0.0888	0.00200	"	0.100		88.8	70-130			
Benzene	0.103	0.00200	"	0.100		103	70-130			
Ethylbenzene	0.0861	0.00200	"	0.100		86.1	70-130			
Naphthalene	0.0930	0.00380	"	0.100		93.0	70-130			
Toluene	0.0892	0.00200	"	0.100		89.2	70-130			
o-Xylene	0.0869	0.00200	"	0.100		86.9	70-130			
m,p-Xylene	0.195	0.00400	"	0.200		97.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		86.8	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		91.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		94.2	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

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6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

**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 B3A3019 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B3A3019-MS1)</b>		<b>Source: Y301432-01</b>			Prepared: 01/30/2023 Analyzed: 01/30/2023					
1,2,4-Trimethylbenzene	0.0863	0.00200	mg/kg	0.100	0.000820	85.5	70-130			
1,3,5-Trimethylbenzene	0.0907	0.00200	"	0.100	0.00284	87.8	70-130			
Benzene	0.102	0.00200	"	0.100	ND	102	70-130			
Ethylbenzene	0.0855	0.00200	"	0.100	ND	85.5	70-130			
Naphthalene	0.0822	0.00380	"	0.100	0.000860	81.3	70-130			
Toluene	0.0871	0.00200	"	0.100	ND	87.1	70-130			
o-Xylene	0.0865	0.00200	"	0.100	0.000720	85.8	70-130			
m,p-Xylene	0.195	0.00400	"	0.200	ND	97.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		92.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		95.5	70-130			

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Jen Pellegrini, Project Manager



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6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

**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 B3A3019 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B3A3019-MSD1)</b>		<b>Source: Y301432-01</b>		Prepared: 01/30/2023 Analyzed: 01/30/2023						
1,2,4-Trimethylbenzene	0.0817	0.00200	mg/kg	0.100	0.000820	80.9	70-130	5.48	20	
1,3,5-Trimethylbenzene	0.0874	0.00200	"	0.100	0.00284	84.6	70-130	3.66	20	
Benzene	0.0994	0.00200	"	0.100	ND	99.4	70-130	2.17	20	
Ethylbenzene	0.0835	0.00200	"	0.100	ND	83.5	70-130	2.34	20	
Naphthalene	0.0842	0.00380	"	0.100	0.000860	83.4	70-130	2.48	20	
Toluene	0.0855	0.00200	"	0.100	ND	85.5	70-130	1.83	20	
o-Xylene	0.0837	0.00200	"	0.100	0.000720	83.0	70-130	3.24	20	
m,p-Xylene	0.190	0.00400	"	0.200	ND	94.9	70-130	2.66	20	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.8	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		91.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		95.5	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini, Project Manager

Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

## 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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## Classical Chemistry Parameters - 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 B3A2706 - Saturated Paste Metals

##### Blank (B3A2706-BLK1)

Prepared: 01/27/2023 Analyzed: 01/30/2023

SAR	0.00		SAR							U
Calcium PPM	ND	10.0	mg/L							U
Magnesium PPM	ND	10.0	"							U
Sodium PPM	0.413	10.0	"							

##### Duplicate (B3A2706-DUP1)

Source: Y301407-03

Prepared: 01/27/2023 Analyzed: 01/30/2023

SAR	0.00		SAR		0.874			200	200	U
Calcium PPM	44.5	10.0	mg/L		68.7			42.7	50	
Magnesium PPM	14.0	10.0	"		14.9			5.91	50	
Sodium PPM	18.5	10.0	"		30.6			49.2	50	

#### Batch B3A2710 - DTPA Sorbitol Preparation

##### Blank (B3A2710-BLK1)

Prepared: 01/27/2023 Analyzed: 01/30/2023

Boron	ND	0.100	mg/L							U
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##### Duplicate (B3A2710-DUP1)

Source: Y301432-01

Prepared: 01/27/2023 Analyzed: 01/30/2023

Boron	0.227	0.0999	mg/L		0.247			8.51	50	
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6855 West 119th Avenue  
Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

## 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 B3A2721 - Saturated Paste pH/EC</b>										
<b>Blank (B3A2721-BLK1)</b>					Prepared: 01/27/2023 Analyzed: 01/28/2023					
Specific Conductance (EC)	0.00110	0.00500	mmhos/cm							
<b>Duplicate (B3A2721-DUP1)</b>					<b>Source: Y301407-04</b> Prepared: 01/27/2023 Analyzed: 01/28/2023					
pH	8.19		pH Units		8.39			2.41	25	
Specific Conductance (EC)	0.457	0.00500	mmhos/cm		0.459			0.546	25	

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Broomfield CO 80020

Jake Whritenour  
Project Number: UWRWE-A2951-ABN  
Project: Noble - Huntsman G13-10

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L661411 - 3550B**

MSD (L 99396-MSD-L661411)		Source: 99396			Prepared: 01/30/2023 Analyzed: 01/31/2023					
2-Methylnaphthalene	0.0912	0.00201	mg/Kg	0.164	<0.00194	55.6	30-130	5.2	30	
Fluorene	0.095	0.00067	"	0.164	<0.000286	57.9	30-130	10	30	
Pyrene	0.106	0.00067	"	0.164	<0.000643	64.6	30-130	5.5	30	
Indeno(1,2,3-cd)pyrene	0.107	0.00067	"	0.164	<0.000627	65.2	30-130	2.7	30	
Fluoranthene	0.114	0.00067	"	0.164	<0.000394	69.5	30-130	7.5	30	
Dibenz(a,h)anthracene	0.124	0.00067	"	0.164	<0.000614	75.6	30-130	0	30	
Chrysene	0.105	0.00067	"	0.164	<0.000624	64	30-130	4.6	30	
Naphthalene	0.0936	0.00201	"	0.164	<0.00145	57	30-130	5.1	30	
1-Methylnaphthalene	0.0949	0.00201	"	0.164	<0.00109	57.8	30-130	6.2	30	
Benzo(k)fluoranthene	0.103	0.00067	"	0.164	<0.000437	62.8	30-130	3.8	30	
Acenaphthene	0.0943	0.00067	"	0.164	<0.000304	57.5	30-130	7.8	30	
Anthracene	0.0987	0.00067	"	0.164	<0.000334	60.1	30-130	5.2	30	
Benzo(a)anthracene	0.103	0.00067	"	0.164	<0.000493	62.8	30-130	5.6	30	
Benzo(a)pyrene	0.114	0.00067	"	0.164	<0.000468	69.5	30-130	5.1	30	
Benzo(b)fluoranthene	0.0961	0.00067	"	0.164	<0.000585	58.5	30-130	1.3	30	
Surrogate: 2-Fluorobiphenyl	51		"	0.329	153	51	33-115			
Surrogate: Nitrobenzene-d5	51		"	0.329	144	51	29-110			
Surrogate: 4-Terphenyl-d14	67.7		"	0.329	197	67.7	33-122			

MS (L 99396-MS-L661411)		Source: 99396			Prepared: 01/30/2023 Analyzed: 01/31/2023					
Benzo(k)fluoranthene	0.107	0.00067	mg/Kg	0.167	<0.000437	64	30-130			
Acenaphthene	0.102	0.00067	"	0.167	<0.000304	61	30-130			
Naphthalene	0.0985	0.00201	"	0.167	<0.00145	58.9	30-130			
Indeno(1,2,3-cd)pyrene	0.11	0.00067	"	0.167	<0.000627	65.8	30-130			
Fluorene	0.105	0.00067	"	0.167	<0.000286	62.8	30-130			
Fluoranthene	0.123	0.00067	"	0.167	<0.000394	73.6	30-130			
Dibenz(a,h)anthracene	0.124	0.00067	"	0.167	<0.000614	74.2	30-130			

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**Waypoint Analytical, LLC.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L661411 - 3550B**

MS (L 99396-MS-L661411)		Source: 99396			Prepared: 01/30/2023 Analyzed: 01/31/2023					
Chrysene	0.11	0.00067	mg/Kg	0.167	<0.000624	65.8	30-130			
1-Methylnaphthalene	0.101	0.00201	"	0.167	<0.00109	60.4	30-130			
Benzo(a)pyrene	0.12	0.00067	"	0.167	<0.000468	71.8	30-130			
Anthracene	0.104	0.00067	"	0.167	<0.000334	62.2	30-130			
Pyrene	0.112	0.00067	"	0.167	<0.000643	67	30-130			
2-Methylnaphthalene	0.0961	0.00201	"	0.167	<0.00194	57.5	30-130			
Benzo(b)fluoranthene	0.0948	0.00067	"	0.167	<0.000585	56.7	30-130			
Benzo(a)anthracene	0.109	0.00067	"	0.167	<0.000493	65.2	30-130			
Surrogate: Nitrobenzene-d5	54.9		"	0.333	144	54.9	29-110			
Surrogate: 4-Terphenyl-d14	69.6		"	0.333	197	69.6	33-122			
Surrogate: 2-Fluorobiphenyl	56.7		"	0.333	153	56.7	33-115			

LCS (LCS-L661411)		Prepared: 01/30/2023 Analyzed: 01/31/2023								
Chrysene	0.117	0.00067	mg/Kg	0.167		70	30-130			
Dibenz(a,h)anthracene	0.104	0.00067	"	0.167		62.2	30-130			
Fluoranthene	0.126	0.00067	"	0.167		75.4	30-130			
Fluorene	0.11	0.00067	"	0.167		65.8	30-130			
Indeno(1,2,3-cd)pyrene	0.0916	0.00067	"	0.167		54.8	30-130			
Naphthalene	0.107	0.00201	"	0.167		64	30-130			
Benzo(k)fluoranthene	0.103	0.00067	"	0.167		61.6	30-130			
Pyrene	0.12	0.00067	"	0.167		71.8	30-130			
Benzo(a)pyrene	0.128	0.00067	"	0.167		76.6	30-130			
Benzo(a)anthracene	0.12	0.00067	"	0.167		71.8	30-130			
Anthracene	0.108	0.00067	"	0.167		64.6	30-130			
Acenaphthene	0.107	0.00067	"	0.167		64	30-130			
2-Methylnaphthalene	0.102	0.00201	"	0.167		61	30-130			
1-Methylnaphthalene	0.108	0.00201	"	0.167		64.6	30-130			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L661411 - 3550B</b>										
<b>LCS (LCS-L661411)</b>					Prepared: 01/30/2023 Analyzed: 01/31/2023					
Benzo(b)fluoranthene	0.0966	0.00067	mg/Kg	0.167		57.8	30-130			
Surrogate: Nitrobenzene-d5	58.5		"	0.333		58.5	29-110			
Surrogate: 4-Terphenyl-d14	76.8		"	0.333		76.8	33-122			
Surrogate: 2-Fluorobiphenyl	61.8		"	0.333		61.8	33-115			
<b>LRB (LRB-L661411)</b>					Prepared: 01/30/2023 Analyzed: 01/31/2023					
Chrysene	ND	0.00067	mg/Kg				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Naphthalene	ND	0.00201	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00201	"				-			
1-Methylnaphthalene	ND	0.00201	"				-			
Pyrene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	60.6		"	0.333		60.6	29-110			
Surrogate: 4-Terphenyl-d14	64.8		"	0.333		64.8	33-122			
Surrogate: 2-Fluorobiphenyl	54.6		"	0.333		54.6	33-115			

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### Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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Jen Pellegrini, Project Manager