

Wellhead Closure Checklist

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

Additional attachments (optional):		Pit Closure --		Tank Battery Closure --		Flowline Closure --		Partially Buried Vault Closure --
Site Name & COGCC Facility Number: Watkins #13-1		Date: 1-4-24						Remediation Project #: 31446
Associated Wells: 05-123-12807		Age of Site: years						Number of Photos Attached: 6
Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple) 40.318040 / -104.505930							Estimated Facility Size (acres):	
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.) Good condition								
USCS Soil Type: SC					Estimated Depth to Groundwater: ~10-20'			
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed								
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed								
Wellhead(s)								
Well API	05-123-12807							
Age	years							
Condition of surface around wellhead	Good - No odor/no staining							
PID Readings	WH-N: 0.6	WH-E: 0.4	WH-S: 0.1	WH-W: 0.5				
Condition of subsurface (staining present)	Good - No odor/no staining							
PID Readings	1.9	1.3	2.4	1.6	2.6			
Sample taken? Location/Sample ID#	WH-SS-01	WH-SS-02	WH-SS-03	WH-SS-04	WH-FS-01			
Photo Number(s)	See photo log							
Other observations regarding wellheads: Well casing cut/capped following assessment								
Summary								
Was impacted soil identified? <input checked="" type="radio"/> No Yes - less than 10 cubic yards Yes - more than 10 cubic yards								
Total number of samples field screened: 9				Total number of samples collected: 9				
Highest PID Reading: 2.6				Total number of samples submitted to lab for analysis: 1				
If more than 10 cubic yards of impacted soil were observed:								
Vertical extent:				Estimated spill volume:				
Lateral extent:				Volume of soil removed:				
Is additional investigation required?								
Was groundwater encountered during the investigation? <input checked="" type="radio"/> 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:								



FIGURES

Figure 1: Topographic Site Location Map

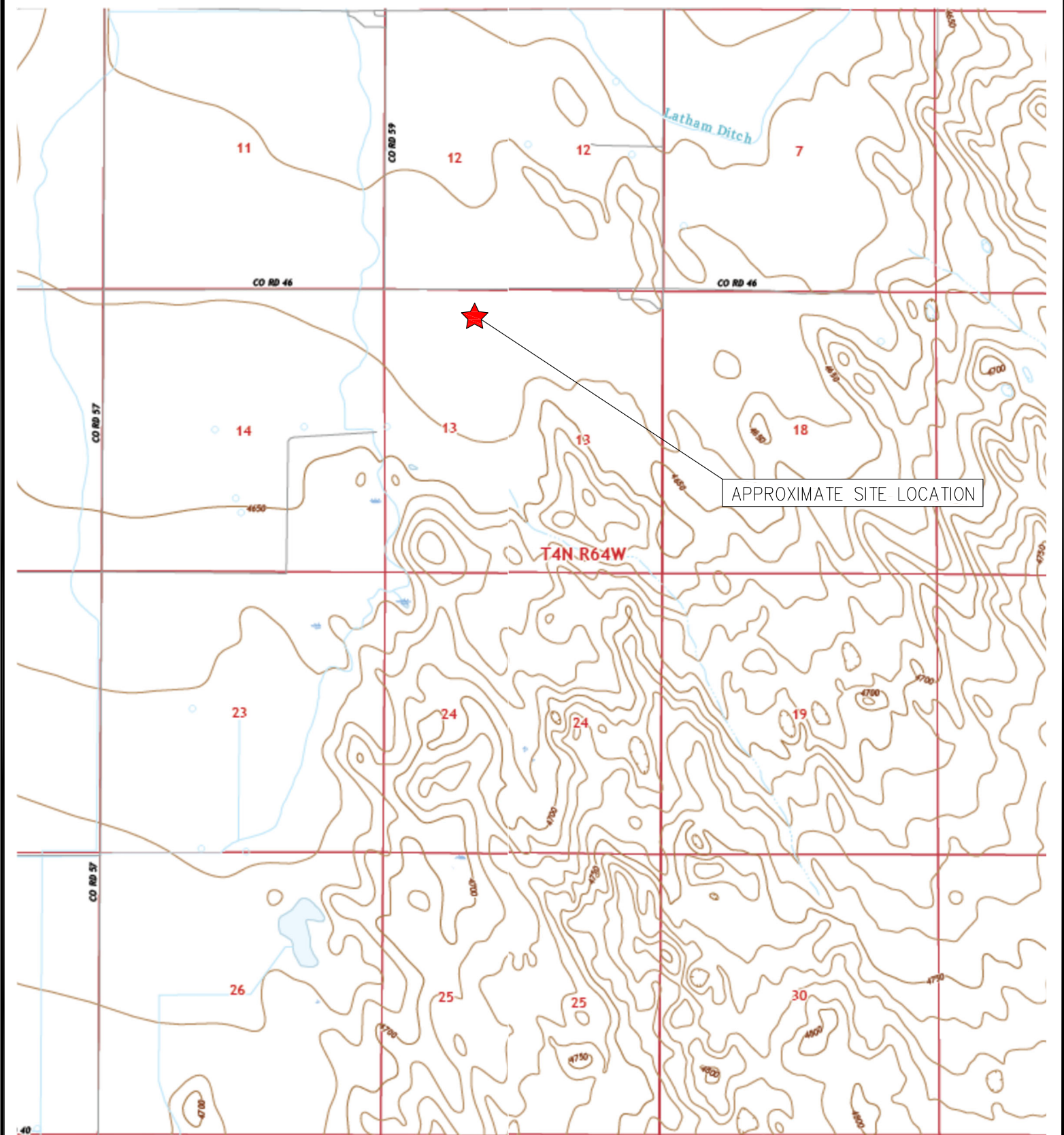
Figure 2: Aerial Site Location Map

Figure 3: Sample Location Map

Figure 4: Soil Analytical Map

Figure 5: Polycyclic Aromatic Hydrocarbons Map

Figure 6: Metals in Soil Map



TOPOGRAPHIC SITE LOCATION MAP
 WATKINS #13-1
 CLOSURE ASSESSMENT
 40.318040 / -104.505930
 NW¼ NW¼ SEC.13 T4N R64W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-12807
 REMEDIATION # 31446



EAGLE
 ENVIRONMENTAL
 CONSULTING, LLC

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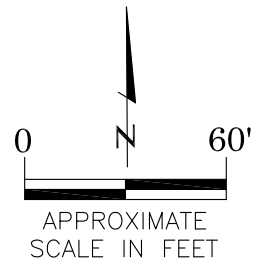
SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAPS,
 HARDIN & VALLEY VIEW SCHOOL, CO QUADRANGLES
 2022

FIGURE NO. 1



LEGEND

- FORMER WATKINS #13-1 WELLHEAD (PLUGGED AND ABANDONED)
- ASSOCIATED SEPARATOR
- APPROXIMATE FLOWLINE LOCATION



AERIAL SITE LOCATION MAP

WATKINS #13-1
 CLOSURE ASSESSMENT
 40.318040 / -104.505930
 NW¼ NW¼ SEC.13 T4N R64W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-12807
 REMEDIATION # 31446

FIGURE NO.
 2

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 RS



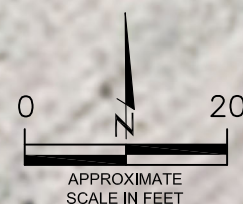
EAGLE
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LEGEND

- WELLHEAD ASSESSMENT BOUNDARIES
- SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES FIELD SCREENED, ONLY, WITH PHOTOIONIZATION DETECTOR
- SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

BACKGROUND-01

WH-N
WH-SS-01
WH-SS-04
WH-W
WH-E
WH-SS-02
WH-FS-01
WH-SS-03
WH-S



SAMPLE LOCATION MAP
WATKINS #13-1
CLOSURE ASSESSMENT
40.3184040 / -104.505930
NW¼ NW¼ SEC.13 T4N R64W 6PM
WELD COUNTY, COLORADO
API # 05-123-12807
REMEDATION # 31446

FIGURE NO.
3

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WH-FS-01@6'
01/04/24
6'
B = <0.00200
T = <0.00200
E = <0.00200
X = <0.00200
N = <0.00380
G = 0.797
D = <25.0
R = <100
1,2,4-TMB = <0.00200
1,3,5-TMB = 0.00224
Brn= 0.615
EC = 0.657
SAR= 3.52
pH = **8.41**

BACKGROUND-01@2'
01/04/24
2'
Brn= 0.721
EC = 1.80
SAR= **6.18**
pH = 8.24

LEGEND

- WELLHEAD ASSESSMENT BOUNDARIES
- SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES FIELD SCREENED, ONLY, WITH PHOTOIONIZATION DETECTOR
- SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

PARAMETERS

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

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

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

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

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

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

SOIL ANALYTICAL MAP
WATKINS #13-1
CLOSURE ASSESSMENT
40.3184040 / -104.505930
NW¼ NW¼ SEC.13 T4N R64W 6PM
WELD COUNTY, COLORADO
API # 05-123-12807
REMEDIAION # 31446

FIGURE NO.
4

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LEGEND

- WELLHEAD ASSESSMENT BOUNDARIES
- SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES FIELD SCREENED, ONLY, WITH PHOTOIONIZATION DETECTOR
- SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

PARAMETERS

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

mg/kg = MILLIGRAMS PER KILOGRAM

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

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

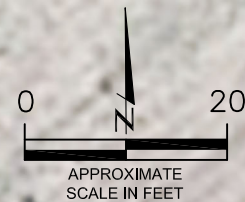
VALUES PRESENTED WITH AN ASTERISK (*) EXCEED ECMC TABLE 915-1 GROUNDWATER SOIL SCREENING LEVELS, ONLY.

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

WH-FS-01@6'
01/04/24
6'

1-Methylnaphthalene = **0.008***
2-Methylnaphthalene = 0.009
Acenaphthene = <0.020
Anthracene = <0.020
Benzo(a)anthracene = <0.005
Benzo(a)pyrene = <0.020
Benzo(b)fluoranthene = <0.020
Benzo(k)fluoranthene = <0.020
Chrysene = <0.020
Dibenzo(a,h)anthracene = <0.020
Fluoranthene = <0.020
Fluorene = <0.020
Indeno(1,2,3-CD)pyrene = <0.020
Pyrene = <0.020

WH-SS-01
WH-SS-04
WH-FS-01
WH-SS-02
WH-SS-03



POLYCYCLIC AROMATIC HYDROCARBONS MAP

WATKINS #13-1
CLOSURE ASSESSMENT
40.3184040 / -104.505930
NW¼ NW¼ SEC.13 T4N R64W 6PM
WELD COUNTY, COLORADO
API # 05-123-12807
REMEDIAL # 31446

FIGURE NO.
5

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LEGEND

— WELLHEAD ASSESSMENT BOUNDARIES

● SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES FIELD SCREENED, ONLY, WITH PHOTOIONIZATION DETECTOR

● SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

PARAMETERS

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

mg/kg = MILLIGRAMS PER KILOGRAM

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

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

*VALUES EXCEED ECMC TABLE 915-1 PROTECTION OF GROUNDWATER SOIL SCREENING LEVELS, ONLY.

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

***ARSENIC IS NATURALLY OCCURRING IN COLORADO. LOCAL CLEAN-UP LEVEL (2.53 mg/kg) is 1.25*BACKGROUND (2.03 mg/kg).

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

METALS IN SOIL MAP
WATKINS #13-1
CLOSURE ASSESSMENT
40.318040 / -104.505930
NW¼ NW¼ SEC.13 T4N R64W 6PM
WELD COUNTY, COLORADO
API # 05-123-12807
REMEDATION # 31446

FIGURE NO.
6

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TABLES

Table 1: Photoionization Detector Reading Summary

Table 2: Soil Analytical Results Summary

TABLE 1
PHOTOIONIZATION DETECTOR READING SUMMARY
WATKINS #13-1
CLOSURE ASSESSMENT
40.318040 / -104.505930
NW¼ NW¼ SEC.13 T4N R64W 6PM
WELD COUNTY, COLORADO
API # 05-123-12807
REMEDIAION # 31446

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Lab Submission (Y/N)
WH-FS-01 @ 6' (40.318044 / -104.505951)	01/04/24	6	2.6	Y
WH-SS-01 @ 5' (40.318053 / -104.505951)	01/04/24	5	1.9	N
WH-SS-02 @ 5' (40.318046 / -104.505940)	01/04/24	5	1.3	N
WH-SS-03 @ 5' (40.318033 / -104.505951)	01/04/24	5	2.4	N
WH-SS-04 @ 5' (40.318044 / -104.505963)	01/04/24	5	1.6	N
WH-N @ 0.5' (40.318065 / -104.505952)	01/04/24	0.5	0.6	N
WH-E @ 0.5' (40.318047 / -104.505920)	01/04/24	0.5	0.4	N
WH-S @ 0.5' (40.318021 / -104.505950)	01/04/24	0.5	0.1	N
WH-W @ 0.5' (40.318042 / -104.505983)	01/04/24	0.5	0.5	N
Background-01 @ 2' (40.318049 / -104.506048)	01/04/24	2	2.2	Y
ppm-v = parts per million by volume PID = Photoionization Detector				

TABLE 2
SOIL ANALYTICAL RESULTS SUMMARY
WATKINS #13-1
CLOSURE ASSESSMENT
40.318040 / -104.505930
NW¼ NW¼ SEC.13 T4N R64W 6PM
WELD COUNTY, COLORADO
API # 05-123-12807
REMEDIATION # 31446

Sample Location					WH-FS-01 @ 6'	Background-01 @ 2'
(Latitude / Longitude)					(40.318044 / -104.505951)	(40.318049 / -104.506048)
Sample Date					1/4/2024	1/4/2024
Sample Depth					6'	2'
PID Reading (ppm-v)					2.6	2.2
Regulatory Limits						
Chemical of Concern	Units	ECMC Table 915-1 RSSLs	ECMC Table 915-1 GSSLs	Local Clean-Up Level		
VOCs						
Benzene	mg/kg	1.2	0.0026	--	<0.00200	NA
Toluene	mg/kg	490	0.69	--	<0.00200	NA
Ethylbenzene	mg/kg	5.8	0.78	--	<0.00200	NA
Total Xylenes	mg/kg	58	9.9	--	<0.00200	NA
Naphthalene	mg/kg	2	0.0038	--	<0.00380	NA
1,2,4-Trimethylbenzene	mg/kg	30	0.0081	--	<0.00200	NA
1,3,5-Trimethylbenzene	mg/kg	27	0.0087	--	0.00224	NA
TOTAL PETROLEUM HYDROCARBONS						
TPH-GRO	mg/kg	500	--	--	0.797	NA
TPH-DRO	mg/kg	500	--	--	<25.0	NA
TPH-RRO	mg/kg	500	--	--	<100	NA
POLYCYCLIC AROMATIC HYDROCARBONS						
1-Methyl-naphthalene	mg/kg	18	0.006	--	0.008*	NA
2-Methyl-naphthalene	mg/kg	24	0.019	--	0.009	NA
Acenaphthene	mg/kg	360	0.55	--	<0.020	NA
Anthracene	mg/kg	1800	5.8	--	<0.020	NA
Benzo(a)-anthracene	mg/kg	1.1	0.011	--	<0.005	NA
Benzo(a)-pyrene	mg/kg	0.11	0.24	--	<0.020	NA
Benzo(b)-fluoranthene	mg/kg	1.1	0.3	--	<0.020	NA
Benzo(k)-fluoranthene	mg/kg	11	2.9	--	<0.020	NA
Chrysene	mg/kg	110	9	--	<0.020	NA
Dibenzo(a,h)-anthracene	mg/kg	0.11	0.096	--	<0.020	NA
Fluoranthene	mg/kg	240	8.9	--	<0.020	NA
Fluorene	mg/kg	240	0.54	--	<0.020	NA
Indeno(1,2,3-cd)-pyrene	mg/kg	1.1	0.98	--	<0.020	NA
Pyrene	mg/kg	180	1.3	--	<0.020	NA
SOIL SUITABILITY (Inorganics)						
Boron	mg/L	2	--	--	0.615	0.721
pH	standard unit	6-8.3	--	--	8.41	8.24
Sodium Adsorption Ratio (SAR)	--	<6	--	--	3.52	6.18
Specific Conductance (EC)	mmhos/cm	<4	--	--	0.657	1.80
METALS						
Arsenic	mg/kg	0.68***	0.29***	2.53***	2.86***	2.03***
Barium	mg/kg	15000	82	--	85.7*	56.9
Cadmium	mg/kg	71	0.38	--	0.200	0.191
Copper	mg/kg	3100	46	--	10.6	<9.62
Lead	mg/kg	400	14	--	9.34	6.87
Nickel	mg/kg	1500	26	--	9.04	5.72
Selenium	mg/kg	390	0.26	--	<0.0883	<0.0962
Silver	mg/kg	390	0.8	--	<0.0883	<0.0962
Zinc	mg/kg	23000	370	--	44.1	35.0
Hexavalent Chromium	mg/kg	0.3**	0.00067**	0.1 to 1.0**	<0.244**	<0.244**
ECMC = Energy & Carbon Management Commission		NA - Not Analyzed		VOCs - Volatile Organic Compounds		
mg/kg = milligrams per kilogram						
mmhos/cm = millimhos per centimeter		RSSLs = Residential Soil Screening Levels				
PID = Photoionization Detector		GSSLs = Protection of Groundwater Soil Screening Levels				
ppm-v = parts per million by volume		TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics				
mg/L = milligrams per liter		TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics				
SAR = Sodium Adsorption Ratio		TPH-RRO = Total Petroleum Hydrocarbons - Residual Range Organics				
Notes:						
Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit and/or minimum detection limit.						
Values presented in BOLD exceed ECMC Table 915-1 Regulatory Limits. Values presented with asterisk (*) exceed ECMC Table 915-1 GSSLs, only.						
**Achievable practical quantitative limits for Hexavalent Chromium in soils is in the range of 0.1 to 1 mg/kg.						
***Arsenic is naturally occurring in Colorado. The Local Clean-up Level (2.53 mg/kg) is 1.25*Background (2.03 mg/kg).						



ATTACHMENT A

Photo Log

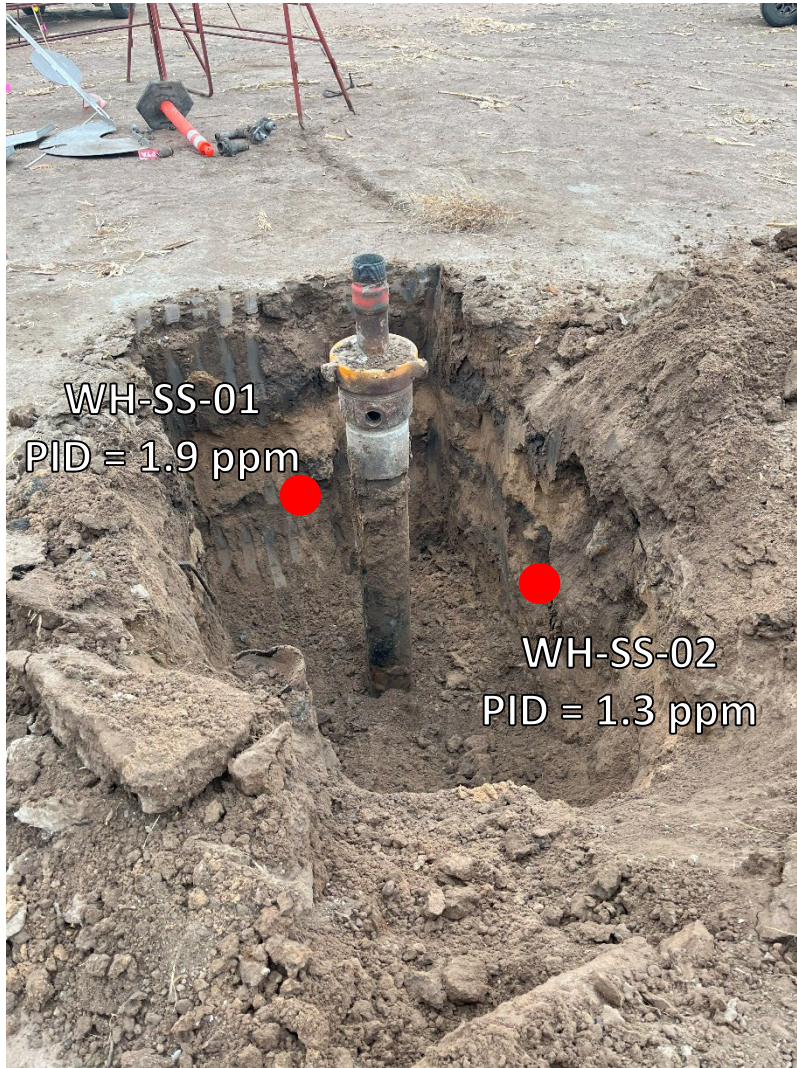
Watkins #13-1
API # 05-123-12807
Remediation # 31446

Closure Assessment

January 2024

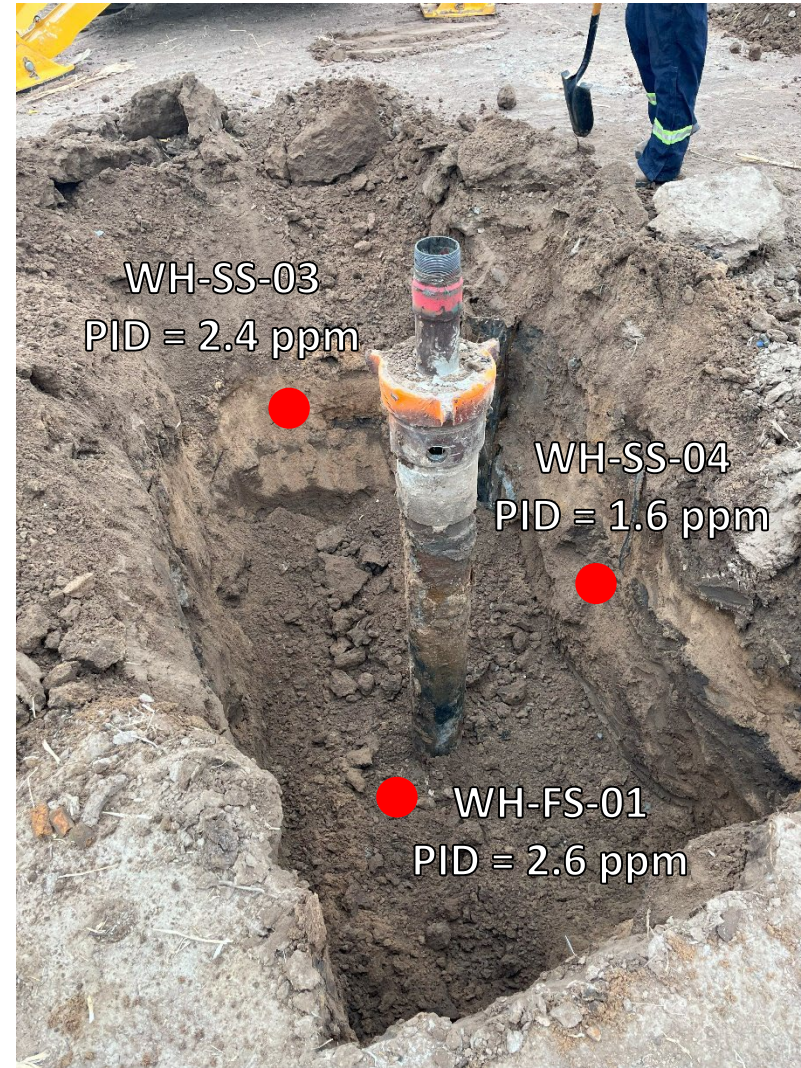


Wellhead Excavation – 01/04/24



Looking north

No petroleum hydrocarbon staining or odor observed



Looking south

No petroleum hydrocarbon staining or odor observed

Wellhead Surface – 01/04/24



Looking north

Site in good condition – no petroleum hydrocarbon staining or odor
Observed on surface around wellhead



Looking east

Site in good condition – no petroleum hydrocarbon staining or odor
Observed on surface around wellhead

Wellhead Surface – 01/04/24



Looking south

Site in good condition – no petroleum hydrocarbon staining or odor
Observed on surface around wellhead



Looking west

Site in good condition – no petroleum hydrocarbon staining or odor
Observed on surface around wellhead



ATTACHMENT B

Laboratory Analytical Report



January 12, 2024

Eagle Environmental Consulting, LLC

Andrew Newberry

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Watkins #13-1

Project Number - [none]

Attached are your analytical results for Noble - Watkins #13-1 received by Origins Laboratory, Inc. January 04, 2024. This project is associated with Origins project number Y401072-01.

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

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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH-FS-01@6'	Y401072-01	Soil	January 4, 2024 9:15	01/04/2024 14:56
Background-01@2'	Y401072-02	Soil	January 4, 2024 9:10	01/04/2024 14:56

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.

Jordan A. Bynon, Project Manager

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

ORIGINS

LABORATORY, INC

4401072

www.originslaboratory.com

page

of

Client: Eagle Environmental Consulting
Address: 800 W 44th Ave
Wheat Ridge, CO 80033
Telephone Number: 303-433-0474
Email Address: anewberry@eagle-environ.com

Project Manager: Andrew Newberry
Project Name: Watkins #13-1
Project Number: _____
Samples Collected By: RS

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions		
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #			Other	
WH-FS-01@6'	1/4/14	0915	3	X							X	X	X	EC, SAR, pH = 1
Background-01@2'	1/4/14	0910	2	X							X	X	X	substant pink prep 2
														3
														4
														5
														6
														7
														8
														9
														10

Relinquished By: [Signature] Date: 1/4/14 Time: 1456
Relinquished By: _____ Date: _____ Time: _____

Received By: [Signature] Date: 11/12/14 Time: 1450
Received By: _____ Date: _____ Time: _____

Turnaround Time: Same Day ☐ 24 Hr ☐ 48 Hr ☐ 72 Hr ☒ Standard

Fax: 303.265.9645

Phone: 303.433.1322

Denver, CO 80211

1725 Elk Place

Bill to Jeff

Temp Received- 4

Date Results Needed- Noble

Origins Laboratory, Inc.

Byron

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

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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4401072

Client: Eagle

Client Project ID: Watkins #B-1

Checklist Completed by: JWH/AS

Shipped Via: TWD

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

Date/time completed: 1/4/12

Airbill #: N/A

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

Cooler Number/Temperature: 1/4 °C / _____ °C / _____ °C / _____ °C (Describe)

Thermometer ID: T004

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<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 ⁽¹⁾ ? (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 ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

Reviewed by: JB (Project Manager)

Date/Time Reviewed: 1524

Origins Laboratory, Inc.

J. Bynon

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

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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

WH-FS-01@6'

1/4/2024 9:15:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y401072-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.615	0.0986	mg/L	1	B4A0508	01/05/2024	01/08/2024	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4A0421	01/04/2024	01/06/2024	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	101 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B4A0430	01/04/2024	01/05/2024	U
1,3,5-Trimethylbenzene	0.00224	0.00200	"	"	"	"	"	
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	0.797	0.200	"	"	"	"	"	

Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

WH-FS-01@6'

1/4/2024 9:15:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y401072-01 (Soil)

GBTEX+TMBs by 8260D

Surrogate: 1,2-Dichloroethane-d4	116 %	70-130	B4A04 30	01/04/2024	01/05/2024
Surrogate: Toluene-d8	97.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	91.2 %	70-130	"	"	"

Metals by Saturated Paste by EPA 6010

Calcium	0.608	0.499	meq/L	10	[CALC]	01/05/2024	01/08/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	2.40	0.435	"	"	"	"	"

PAH by EPA 8270E

1-Methylnaphthalene	0.008	0.002	mg/kg	1	B4A0506	"	01/05/2024	
2-Methylnaphthalene	0.009	0.002	"	"	"	"	"	
Acenaphthene	ND	0.020	"	"	"	"	"	U
Anthracene	ND	0.020	"	"	"	"	"	U
Benzo (a) anthracene	ND	0.005	"	"	"	"	"	U
Benzo (a) pyrene	ND	0.020	"	"	"	"	"	U
Benzo (b) fluoranthene	ND	0.020	"	"	"	"	"	U
Benzo (k) fluoranthene	ND	0.020	"	"	"	"	"	U
Chrysene	ND	0.020	"	"	"	"	"	U
Dibenz (a,h) anthracene	ND	0.020	"	"	"	"	"	U
Fluoranthene	ND	0.020	"	"	"	"	"	U

Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

WH-FS-01@6'

1/4/2024 9:15:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y401072-01 (Soil)

PAH by EPA 8270E

Fluorene	ND	0.020	mg/kg	1	B4A0506	01/05/2024	01/05/2024	U
Indeno (1,2,3-cd) pyrene	ND	0.020	"	"	"	"	"	U
Pyrene	ND	0.020	"	"	"	"	"	U

Surrogate: Fluorene-d10	98.0 %	60-130	"	"	"
Surrogate: Anthracene-d10	96.6 %	60-130	"	"	"
Surrogate: Pyrene-d10	100 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	102 %	60-130	"	"	"

pH in Soil by 9045D

pH	8.41	pH Units	1	B4A0512	01/05/2024	01/06/2024
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SAR by 20B Saturated Paste

SAR	3.52	0.0100	SAR	1	B4A0505	01/05/2024	01/08/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.657	0.00500	mmhos/cm	1	B4A0512	01/05/2024	01/06/2024
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Table 915 metals by EPA 6020B

Arsenic	2.86	0.0883	mg/kg	10	B4A0437	01/05/2024	01/08/2024
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Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

WH-FS-01@6'

1/4/2024 9:15:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y401072-01 (Soil)

Table 915 metals by EPA 6020B

Barium	85.7	8.83	mg/kg	10	B4A0437	01/05/2024	01/08/2024
Cadmium	0.200	0.0883	"	"	"	"	"
Copper	10.6	8.83	"	"	"	"	"
Lead	9.34	0.883	"	"	"	"	"
Nickel	9.04	0.883	"	"	"	"	"
Selenium	ND	0.0883	"	"	"	"	"
Silver	ND	0.0883	"	"	"	"	"
Zinc	44.1	8.83	"	"	"	"	"

Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L727055	01/04/2024	01/11/2024
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Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

Background-01@2'
1/4/2024 9:10:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y401072-02 (Soil)

Boron (DTPA Sorbitol)

Boron	0.721	0.101	mg/L	1	B4A0508	01/05/2024	01/08/2024
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Metals by Saturated Paste by EPA 6010

Calcium	2.80	0.499	meq/L	10	[CALC]	01/05/2024	01/08/2024
Magnesium	2.41	0.823	"	"	"	"	"
Sodium	9.97	0.435	"	"	"	"	"

pH in Soil by 9045D

pH	8.24		pH Units	1	B4A0512	01/05/2024	01/06/2024
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SAR by 20B Saturated Paste

SAR	6.18	0.0100	SAR	1	B4A0505	01/05/2024	01/08/2024
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.80	0.00500	mmhos/cm	1	B4A0512	01/05/2024	01/06/2024
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Table 915 metals by EPA 6020B

Arsenic	2.03	0.0962	mg/kg	10	B4A0437	01/05/2024	01/08/2024
Barium	56.9	9.62	"	"	"	"	"
Cadmium	0.191	0.0962	"	"	"	"	"
Copper	ND	9.62	"	"	"	"	"

Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

Background-01@2'

1/4/2024 9:10:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y401072-02 (Soil)

Table 915 metals by EPA 6020B

Lead	6.87	0.962	mg/kg	10	B4A0437	01/05/2024	01/08/2024
Nickel	5.72	0.962	"	"	"	"	"
Selenium	ND	0.0962	"	"	"	"	"
Silver	ND	0.0962	"	"	"	"	"
Zinc	35.0	9.62	"	"	"	"	"

Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L727055	01/04/2024	01/11/2024
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Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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 B4A0421 - EPA 3550B										
Blank (B4A0421-BLK1)					Prepared: 01/04/2024 Analyzed: 01/06/2024					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	26		"	24.9		105	50-150			

Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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 B4A0421 - EPA 3550B

LCS (B4A0421-BS1)

Prepared: 01/04/2024 Analyzed: 01/06/2024

Diesel (C10-C28)	873	50.0	mg/kg	1000		87.3	70-130			
Residual Range Organics (C28-C40)	775	200	"	1000		77.5	70-130			
Surrogate: o-Terphenyl	51		"	49.8		102	50-150			

Origins Laboratory, Inc.



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Jordan A. Bynon, Project Manager

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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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 B4A0421 - EPA 3550B										
Matrix Spike (B4A0421-MS1)		Source: Y401037-01			Prepared: 01/04/2024 Analyzed: 01/06/2024					
Diesel (C10-C28)	2600	50.0	mg/kg	1000	1120	148	70-130			QM-07
Residual Range Organics (C28-C40)	1620	200	"	1000	526	109	70-130			
Surrogate: o-Terphenyl	52		"	49.8		105	50-150			

Origins Laboratory, Inc.



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Jordan A. Bynon, Project Manager

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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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 B4A0421 - EPA 3550B										
Matrix Spike Dup (B4A0421-MSD1)		Source: Y401037-01			Prepared: 01/04/2024 Analyzed: 01/06/2024					
Diesel (C10-C28)	2390	50.0	mg/kg	1000	1120	126	70-130	8.71	35	
Residual Range Organics (C28-C40)	1540	200	"	1000	526	101	70-130	4.97	35	
Surrogate: o-Terphenyl	52		"	49.8		104	50-150			

Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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 B4A0430 - EPA 5030 (soil)										
Blank (B4A0430-BLK1)					Prepared: 01/04/2024 Analyzed: 01/05/2024					
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	0.13		"	0.125		106	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.11		"	0.125		88.6	70-130			

Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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 B4A0430 - EPA 5030 (soil)

LCS (B4A0430-BS1)

Prepared: 01/04/2024 Analyzed: 01/05/2024

1,2,4-Trimethylbenzene	0.0961	0.00200	mg/kg	0.100		96.1	70-130			
1,3,5-Trimethylbenzene	0.0964	0.00200	"	0.100		96.4	70-130			
Benzene	0.0978	0.00200	"	0.100		97.8	70-130			
Ethylbenzene	0.0979	0.00200	"	0.100		97.9	70-130			
Naphthalene	0.0885	0.00380	"	0.100		88.5	70-130			
Toluene	0.103	0.00200	"	0.100		103	70-130			
o-Xylene	0.0920	0.00200	"	0.100		92.0	70-130			
m,p-Xylene	0.193	0.00400	"	0.200		96.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		102	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.11		"	0.125		91.8	70-130			

Origins Laboratory, Inc.



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Jordan A. Bynon, Project Manager

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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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 B4A0430 - EPA 5030 (soil)										
Matrix Spike (B4A0430-MS1)		Source: Y401053-01			Prepared: 01/04/2024 Analyzed: 01/05/2024					
1,2,4-Trimethylbenzene	0.0852	0.00200	mg/kg	0.100	ND	85.2	70-130			
1,3,5-Trimethylbenzene	0.0852	0.00200	"	0.100	ND	85.2	70-130			
Benzene	0.0926	0.00200	"	0.100	ND	92.6	70-130			
Ethylbenzene	0.0854	0.00200	"	0.100	ND	85.4	70-130			
Naphthalene	0.0928	0.00380	"	0.100	ND	92.8	70-130			
Toluene	0.0937	0.00200	"	0.100	ND	93.7	70-130			
o-Xylene	0.0839	0.00200	"	0.100	ND	83.9	70-130			
m,p-Xylene	0.172	0.00400	"	0.200	ND	85.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		110	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.11		"	0.125		88.5	70-130			

Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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 B4A0430 - EPA 5030 (soil)										
Matrix Spike Dup (B4A0430-MSD1)		Source: Y401053-01			Prepared: 01/04/2024 Analyzed: 01/05/2024					
1,2,4-Trimethylbenzene	0.0881	0.00200	mg/kg	0.100	ND	88.1	70-130	3.42	20	
1,3,5-Trimethylbenzene	0.0861	0.00200	"	0.100	ND	86.1	70-130	1.10	20	
Benzene	0.0947	0.00200	"	0.100	ND	94.7	70-130	2.28	20	
Ethylbenzene	0.0860	0.00200	"	0.100	ND	86.0	70-130	0.770	20	
Naphthalene	0.0969	0.00380	"	0.100	ND	96.9	70-130	4.32	20	
Toluene	0.0956	0.00200	"	0.100	ND	95.6	70-130	2.09	20	
o-Xylene	0.0851	0.00200	"	0.100	ND	85.1	70-130	1.37	20	
m,p-Xylene	0.173	0.00400	"	0.200	ND	86.5	70-130	0.708	20	
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		109	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.11		"	0.125		86.9	70-130			

Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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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Metals by EPA 6000/7000 Series Methods - 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 B4A0437 - EPA 3050B

Blank (B4A0437-BLK1)

Prepared: 01/05/2024 Analyzed: 01/08/2024

Arsenic	ND	0.100	mg/kg
Barium	ND	1.00	"
Cadmium	ND	0.0100	"
Copper	ND	1.00	"
Lead	ND	0.100	"
Nickel	ND	0.100	"
Selenium	ND	0.0100	"
Silver	ND	0.0100	"
Zinc	ND	1.00	"

LCS (B4A0437-BS1)

Prepared: 01/05/2024 Analyzed: 01/08/2024

Arsenic	5.15	0.0100	mg/kg	5.00	103	80-120
Barium	501	1.00	"	500	100	80-120
Cadmium	5.10	0.0100	"	5.00	102	80-120
Copper	51.2	1.00	"	50.0	102	80-120
Lead	4.98	0.100	"	5.00	99.5	80-120
Nickel	5.46	0.100	"	5.00	109	80-120
Selenium	4.72	0.0100	"	5.00	94.3	80-120
Silver	5.20	0.0100	"	5.00	104	80-120
Zinc	51.4	1.00	"	50.0	103	80-120

Matrix Spike (B4A0437-MS1)

Source: Y401068-12

Prepared: 01/05/2024 Analyzed: 01/08/2024

Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

Metals by EPA 6000/7000 Series Methods - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4A0437 - EPA 3050B										
Matrix Spike (B4A0437-MS1)		Source: Y401068-12			Prepared: 01/05/2024 Analyzed: 01/08/2024					
Arsenic	7.68	0.0858	mg/kg	4.29	3.13	106	75-125			QM-07
Barium	693	8.58	"	429	136	130	75-125			
Cadmium	4.45	0.0858	"	4.29	0.150	100	75-125			
Copper	45.6	8.58	"	42.9	7.64	88.6	75-125			
Lead	10.8	0.858	"	4.29	6.76	93.4	75-125			
Nickel	12.2	0.858	"	4.29	8.37	89.3	75-125			
Selenium	4.58	0.0858	"	4.29	0.0832	105	75-125			
Silver	4.34	0.0858	"	4.29	0.0182	101	75-125			
Zinc	74.1	8.58	"	42.9	34.0	93.6	75-125			
Matrix Spike Dup (B4A0437-MSD1)		Source: Y401068-12			Prepared: 01/05/2024 Analyzed: 01/08/2024					
Arsenic	8.57	0.0950	mg/kg	4.75	3.13	114	75-125	10.9	20	
Barium	637	9.50	"	475	136	105	75-125	8.45	20	
Cadmium	5.20	0.0950	"	4.75	0.150	106	75-125	15.6	20	
Copper	54.3	9.50	"	47.5	7.64	98.3	75-125	17.4	20	
Lead	12.1	0.950	"	4.75	6.76	112	75-125	11.5	20	
Nickel	13.8	0.950	"	4.75	8.37	115	75-125	12.4	20	
Selenium	4.82	0.0950	"	4.75	0.0832	99.6	75-125	5.05	20	
Silver	5.22	0.0950	"	4.75	0.0182	109	75-125	18.4	20	
Zinc	87.0	9.50	"	47.5	34.0	112	75-125	16.0	20	

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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B4A0506 - EPA 3580

Blank (B4A0506-BLK1)

Prepared: 01/05/2024 Analyzed: 01/05/2024

1-Methylnaphthalene	ND	0.002	mg/kg							U
2-Methylnaphthalene	ND	0.002	"							U
Acenaphthene	ND	0.020	"							U
Anthracene	ND	0.020	"							U
Benzo (a) anthracene	ND	0.005	"							U
Benzo (a) pyrene	ND	0.020	"							U
Benzo (b) fluoranthene	ND	0.020	"							U
Benzo (g,h,i) perylene	ND	0.020	"							U
Benzo (k) fluoranthene	ND	0.020	"							U
Chrysene	ND	0.020	"							U
Dibenz (a,h) anthracene	ND	0.020	"							U
Fluoranthene	ND	0.020	"							U
Fluorene	ND	0.020	"							U
Indeno (1,2,3-cd) pyrene	ND	0.020	"							U
Naphthalene	ND	0.002	"							U
Phenanthrene	ND	0.020	"							U
Pyrene	ND	0.020	"							U
Surrogate: Fluorene-d10	200		ug/kg	200		97.5	60-130			
Surrogate: Anthracene-d10	190		"	200		97.4	60-130			
Surrogate: Pyrene-d10	200		"	200		100	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		100	60-130			

LCS (B4A0506-BS1)

Prepared: 01/05/2024 Analyzed: 01/05/2024

1-Methylnaphthalene	0.202	0.002	mg/kg	0.200		101	70-130			
2-Methylnaphthalene	0.197	0.002	"	0.200		98.5	70-130			
Acenaphthene	0.182	0.020	"	0.200		91.0	70-130			
Anthracene	0.172	0.020	"	0.200		86.0	70-130			

Origins Laboratory, Inc.



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Eagle Environmental Consulting, LLC
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Wheat Ridge CO 80033

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B4A0506 - EPA 3580

LCS (B4A0506-BS1)

Prepared: 01/05/2024 Analyzed: 01/05/2024

Benzo (a) anthracene	0.194	0.005	mg/kg	0.200		97.0	70-130
Benzo (a) pyrene	0.231	0.020	"	0.200		116	70-130
Benzo (b) fluoranthene	0.201	0.020	"	0.200		101	70-130
Benzo (g,h,i) perylene	0.212	0.020	"	0.200		106	70-130
Benzo (k) fluoranthene	0.176	0.020	"	0.200		88.1	70-130
Chrysene	0.189	0.020	"	0.200		94.6	70-130
Dibenz (a,h) anthracene	0.203	0.020	"	0.200		101	70-130
Fluoranthene	0.184	0.020	"	0.200		91.8	70-130
Fluorene	0.182	0.020	"	0.200		90.8	70-130
Indeno (1,2,3-cd) pyrene	0.182	0.020	"	0.200		91.1	70-130
Naphthalene	0.196	0.002	"	0.200		97.8	70-130
Phenanthrene	0.184	0.020	"	0.200		92.2	70-130
Pyrene	0.193	0.020	"	0.200		96.6	70-130
Surrogate: Fluorene-d10	200		ug/kg	200		97.5	60-130
Surrogate: Anthracene-d10	200		"	200		99.1	60-130
Surrogate: Pyrene-d10	200		"	200		99.2	60-130
Surrogate: Benzo (a) pyrene-d12	200		"	200		101	60-130

Matrix Spike (B4A0506-MS1)

Source: Y401051-01

Prepared: 01/05/2024 Analyzed: 01/05/2024

1-Methylnaphthalene	0.208	0.002	mg/kg	0.200	0.0006	104	70-130
2-Methylnaphthalene	0.206	0.002	"	0.200	0.001	103	70-130
Acenaphthene	0.188	0.020	"	0.200	ND	93.8	70-130
Anthracene	0.179	0.020	"	0.200	ND	89.6	70-130
Benzo (a) anthracene	0.199	0.005	"	0.200	0.001	98.8	70-130
Benzo (a) pyrene	0.234	0.020	"	0.200	ND	117	70-130
Benzo (b) fluoranthene	0.214	0.020	"	0.200	0.002	106	70-130
Benzo (g,h,i) perylene	0.214	0.020	"	0.200	ND	107	70-130

Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B4A0506 - EPA 3580

Matrix Spike (B4A0506-MS1)		Source: Y401051-01			Prepared: 01/05/2024 Analyzed: 01/05/2024					
Benzo (k) fluoranthene	0.188	0.020	mg/kg	0.200	ND	94.0	70-130			
Chrysene	0.196	0.020	"	0.200	0.0009	97.7	70-130			
Dibenz (a,h) anthracene	0.196	0.020	"	0.200	ND	98.2	70-130			
Fluoranthene	0.190	0.020	"	0.200	0.0007	94.8	70-130			
Fluorene	0.188	0.020	"	0.200	ND	93.9	70-130			
Indeno (1,2,3-cd) pyrene	0.191	0.020	"	0.200	0.002	94.6	70-130			
Naphthalene	0.201	0.002	"	0.200	ND	101	70-130			
Phenanthrene	0.190	0.020	"	0.200	ND	95.0	70-130			
Pyrene	0.198	0.020	"	0.200	ND	99.1	70-130			
Surrogate: Fluorene-d10	200		ug/kg	200		98.1	60-130			
Surrogate: Anthracene-d10	200		"	200		99.0	60-130			
Surrogate: Pyrene-d10	200		"	200		100	60-130			
Surrogate: Benzo (a) pyrene-d12	210		"	200		104	60-130			

Matrix Spike Dup (B4A0506-MSD1)		Source: Y401051-01			Prepared: 01/05/2024 Analyzed: 01/05/2024					
1-Methylnaphthalene	0.214	0.002	mg/kg	0.200	0.0006	107	70-130	2.65	20	
2-Methylnaphthalene	0.211	0.002	"	0.200	0.001	105	70-130	2.10	20	
Acenaphthene	0.193	0.020	"	0.200	ND	96.6	70-130	2.92	20	
Anthracene	0.184	0.020	"	0.200	ND	91.8	70-130	2.40	20	
Benzo (a) anthracene	0.206	0.005	"	0.200	0.001	103	70-130	3.72	20	
Benzo (a) pyrene	0.222	0.020	"	0.200	ND	111	70-130	5.16	20	
Benzo (b) fluoranthene	0.209	0.020	"	0.200	0.002	103	70-130	2.36	20	
Benzo (g,h,i) perylene	0.217	0.020	"	0.200	ND	108	70-130	1.23	20	
Benzo (k) fluoranthene	0.209	0.020	"	0.200	ND	105	70-130	10.7	20	
Chrysene	0.201	0.020	"	0.200	0.0009	100	70-130	2.35	20	
Dibenz (a,h) anthracene	0.219	0.020	"	0.200	ND	109	70-130	10.9	20	
Fluoranthene	0.193	0.020	"	0.200	0.0007	96.2	70-130	1.39	20	

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Wheat Ridge CO 80033

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

EPA 8270E (SW846) - Semivolatile Organic Compounds - 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 B4A0506 - EPA 3580

Matrix Spike Dup (B4A0506-MSD1)		Source: Y401051-01			Prepared: 01/05/2024 Analyzed: 01/05/2024					
Fluorene	0.190	0.020	mg/kg	0.200	ND	94.8	70-130	1.01	20	
Indeno (1,2,3-cd) pyrene	0.188	0.020	"	0.200	0.002	93.0	70-130	1.72	20	
Naphthalene	0.207	0.002	"	0.200	ND	104	70-130	2.94	20	
Phenanthrene	0.199	0.020	"	0.200	ND	99.7	70-130	4.85	20	
Pyrene	0.203	0.020	"	0.200	ND	102	70-130	2.53	20	
Surrogate: Fluorene-d10	190		ug/kg	200		97.3	60-130			
Surrogate: Anthracene-d10	200		"	200		98.6	60-130			
Surrogate: Pyrene-d10	200		"	200		99.7	60-130			
Surrogate: Benzo (a) pyrene-d12	200		"	200		101	60-130			

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Jordan A. Bynon, Project Manager

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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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 B4A0505 - Saturated Paste Metals

Blank (B4A0505-BLK1)

Prepared: 01/05/2024 Analyzed: 01/08/2024

Calcium PPM	ND	1.00	mg/L
SAR	ND	0.0100	SAR
Magnesium PPM	ND	1.00	mg/L
Sodium PPM	ND	1.00	"

Duplicate (B4A0505-DUP1)

Source: Y401055-04

Prepared: 01/05/2024 Analyzed: 01/08/2024

SAR	ND	0.0100	SAR	2.38		200
Calcium PPM	42.6	10.0	mg/L	41.4	2.62	50
Magnesium PPM	8.58	10.0	"	8.12	5.51	50
Sodium PPM	67.4	10.0	"	64.1	5.04	50

Batch B4A0508 - DTPA Sorbitol Preparation

Blank (B4A0508-BLK1)

Prepared: 01/05/2024 Analyzed: 01/08/2024

Boron	ND	0.100	mg/L
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Duplicate (B4A0508-DUP1)

Source: Y401072-01

Prepared: 01/05/2024 Analyzed: 01/08/2024

Boron	0.537	0.0995	mg/L	0.615	13.5	50
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Jordan A. Bynon, Project Manager

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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

Saturated Paste - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4A0512 - Saturated Paste pH/EC										
Blank (B4A0512-BLK1)					Prepared: 01/05/2024 Analyzed: 01/06/2024					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							
Duplicate (B4A0512-DUP1)					Source: Y401055-04 Prepared: 01/05/2024 Analyzed: 01/06/2024					
pH	8.04		pH Units		8.24			2.46	25	
Specific Conductance (EC)	0.627	0.00500	mmhos/cm		0.587			6.59	25	

Origins Laboratory, Inc.



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8000 W 44th Ave
Wheat Ridge CO 80033

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L727055 -										
DUP (L 92068-DUP)		Source: 92068			Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	ND	0.5	mg/Kg		<0.500	-		0	20	
MS (L 92068-MS)		Source: 92068			Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	35.5	2.5	mg/Kg	39.5	<1.22	90	75-125			
LCS (LCS)					Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	6.24	0.5	mg/Kg	8		78	75-125			
LRB (LRB)					Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

Origins Laboratory, Inc.



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

Andrew Newberry
Project Number: [none]
Project: Noble - Watkins #13-1

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.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Calculated results may use J-flag data (instead of reported "ND") as part of calculation to provide a more accurate result.

Origins Laboratory, Inc.



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Jordan A. Bynon, Project Manager