

# 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: Wells Ranch #AA35-62-1AHNC		Date: 1-3-24					Remediation Project #: 30294	
Associated Wells: 05-123-38670		Age of Site: years					Number of Photos Attached: 9	
Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple) 40.437499 / -104.394114							Estimated Facility Size (acres):	
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)  Good condition								
USCS Soil Type: CL				Estimated Depth to Groundwater: ~30-50'				
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)  Slight petroleum hydrocarbon odor observed within casing collar								
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	05-123-38670							
Age	years							
Condition of surface around wellhead	Good - No odor/no staining							
PID Readings	WH-N: 0.7	WH-E: 0.9	WH-S: 0.5	WH-W: 0.3				
Condition of subsurface (staining present)	Slight petroleum hydrocarbon odor observed within casing collar							
PID Readings	0.4	0.3	0.3	8.9	57.9			
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:				Total number of samples submitted to lab for analysis: 5				
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  
 WELLS RANCH #AA35-62-1AHNC  
 CLOSURE ASSESSMENT  
 40.437499 / -104.394114  
 SW¼ SW¼ SEC.36 T6N R63W 6PM  
 WELD COUNTY, COLORADO  
 API # 05-123-38670  
 REMEDIATION # 30294






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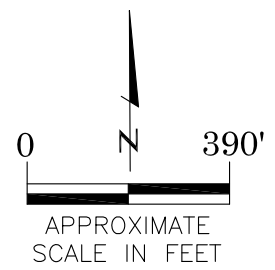
8000 W 44th Ave, Wheat Ridge, CO 80033  
 Ph: 303-433-0479 • F: 303-325-5449





LEGEND

-  FORMER WELLS RANCH #AA35-62-1AHNC WELLHEAD (PLUGGED AND ABANDONED)
-  ASSOCIATED SEPARATOR
-  APPROXIMATE FLOWLINE LOCATION



AERIAL SITE LOCATION MAP  
WELLS RANCH #AA35-62-1AHNC  
CLOSURE ASSESSMENT  
40.437499 / -104.394114  
SW¼ SW¼ SEC.36 T6N R63W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-38670  
REMEDATION # 30294

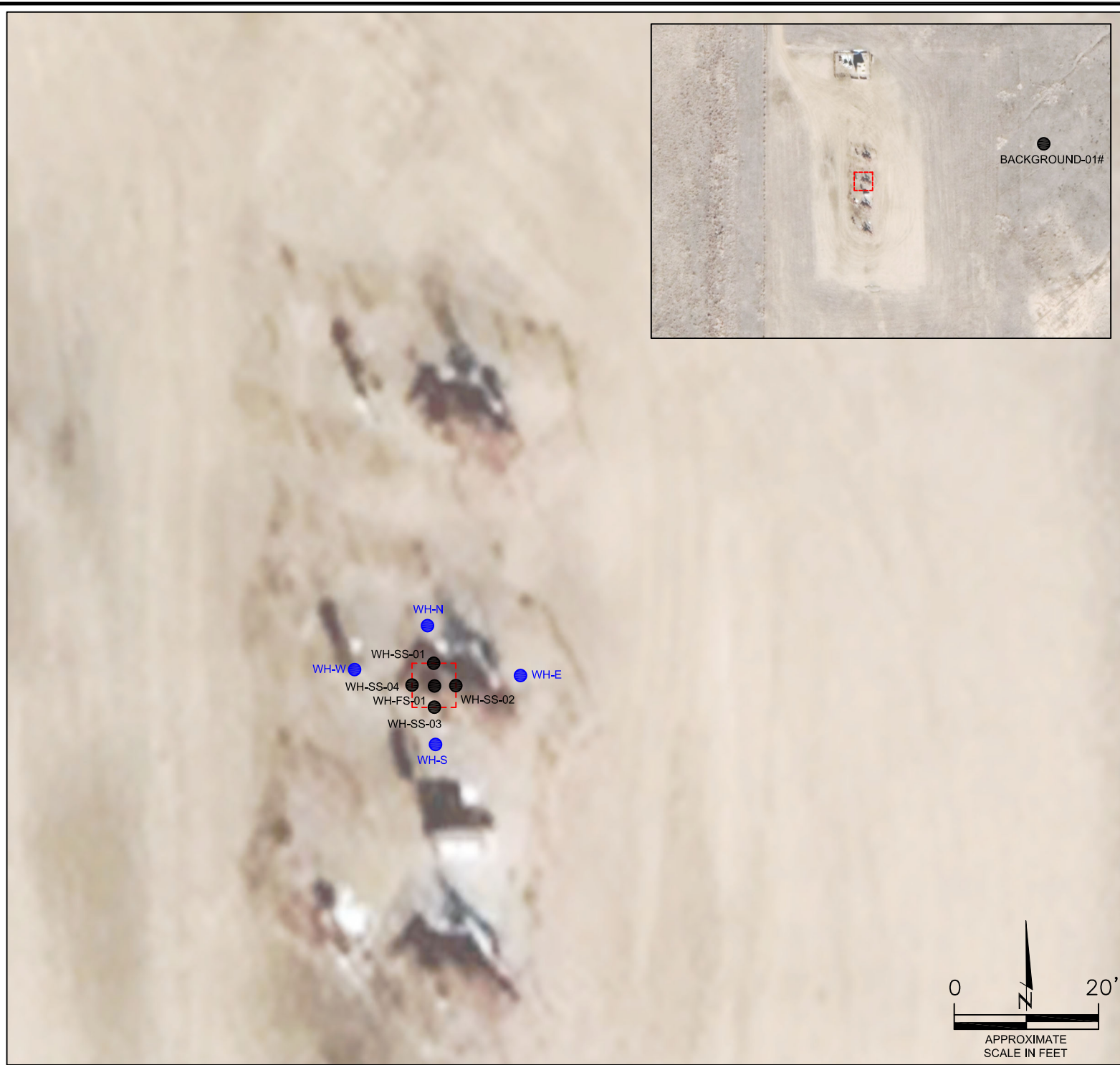
FIGURE NO.
2
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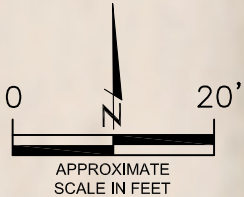




**LEGEND**

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

# APPROXIMATE LOCATION OF BACKGROUND SAMPLE – SAMPLE TAKEN OFF PAD. BACKGROUND IMAGE NOT TO SCALE.



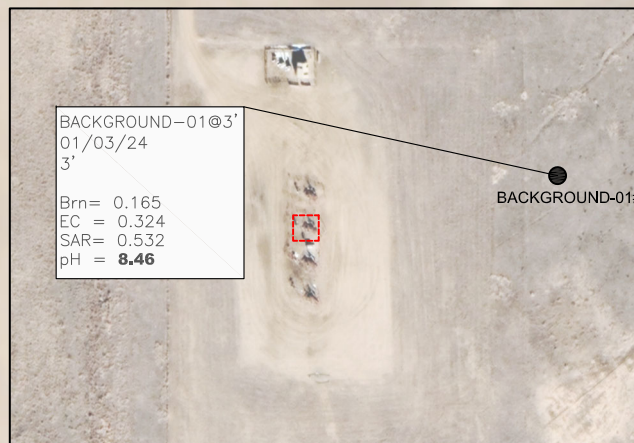
SAMPLE LOCATION MAP  
 WELLS RANCH #AA35-62-1AHNC  
 CLOSURE ASSESSMENT  
 40.437499 / -104.394114  
 SW¼ SW¼ SEC.36 T6N R63W 6PM  
 WELD COUNTY, COLORADO  
 API # 05-123-38670  
 REMEDIATION # 30294

FIGURE NO.  
3

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BACKGROUND-01@3'  
01/03/24  
3'  
Brn= 0.165  
EC = 0.324  
SAR= 0.532  
pH = **8.46**

BACKGROUND-01#

WH-SS-01@3'  
01/03/24  
3'  
B = <0.00200  
T = <0.00200  
E = <0.00200  
X = <0.00200  
N = <0.00380  
G = <0.200  
D = <25.0  
R = <100  
1,2,4-TMB = <0.00200  
1,3,5-TMB = <0.00200  
Brn= 0.105  
EC = 0.273  
SAR= 1.04  
pH = **8.49**

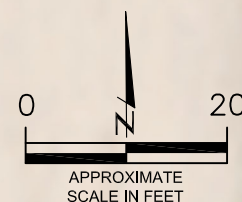
WH-FS-01@4'  
01/03/24  
4'  
B = **0.0121\***  
T = 0.158  
E = 0.0522  
X = 0.371  
N = **0.0218\***  
G = 8.19  
D = 65.6  
R = <100  
1,2,4-TMB = **0.137\***  
1,3,5-TMB = **0.0345\***  
Brn= 0.243  
EC = 0.629  
SAR= 0.617  
pH = **8.55**

WH-SS-04@3'  
01/03/24  
3'  
B = <0.00200  
T = <0.00200  
E = <0.00200  
X = <0.00200  
N = <0.00380  
G = <0.200  
D = <25.0  
R = <100  
1,2,4-TMB = <0.00200  
1,3,5-TMB = <0.00200  
Brn= <0.0990  
EC = 0.234  
SAR= 0.295  
pH = **8.41**

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

WH-SS-02@3'  
01/03/24  
3'  
B = <0.00200  
T = <0.00200  
E = <0.00200  
X = <0.00200  
N = <0.00380  
G = <0.200  
D = <25.0  
R = <100  
1,2,4-TMB = <0.00200  
1,3,5-TMB = <0.00200  
Brn= 0.110  
EC = 0.353  
SAR= 0.632  
pH = **8.39**

WH-SS-03@3'  
01/03/24  
3'  
B = <0.00200  
T = <0.00200  
E = <0.00200  
X = <0.00200  
N = <0.00380  
G = <0.200  
D = <25.0  
R = <100  
1,2,4-TMB = <0.00200  
1,3,5-TMB = <0.00200  
Brn= <0.100  
EC = 0.412  
SAR= 0.494  
pH = **8.53**



#### LEGEND

- WELLHEAD ASSESSMENT BOUNDARIES
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

# APPROXIMATE LOCATION OF BACKGROUND SAMPLE - SAMPLE TAKEN OFF PAD. BACKGROUND IMAGE NOT TO SCALE.

#### 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.

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

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

#### SOIL ANALYTICAL MAP

WELLS RANCH #AA35-62-1AHNC

CLOSURE ASSESSMENT

40.437499 / -104.394114

SW¼ SW¼ SEC.36 T6N R63W 6PM

WELD COUNTY, COLORADO

API # 05-123-38670

REMEDATION # 30294

FIGURE NO.

4

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# LEGEND

- WELLHEAD ASSESSMENT BOUNDARIES
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS
- SS-02

# APPROXIMATE LOCATION OF BACKGROUND SAMPLE – SAMPLE TAKEN OFF PAD. BACKGROUND IMAGE NOT TO SCALE.

## PARAMETERS

SAMPLE LOCATION  
DATE SAMPLE COLLECTED  
APPROXIMATE DEPTH

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) (mg/kg)

mg/kg = MILLIGRAMS PER KILOGRAM

(NS) – NOT SAMPLED

## 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.

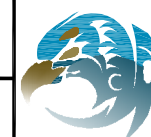
VALUES PRESENTED WITH AN ASTERISK (\*) EXCEED ECMC TABLE 915-1 GROUNDWATER SOIL SCREENING LEVELS, ONLY.

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

POLYCYCLIC AROMATIC HYDROCARBONS MAP  
WELLS RANCH #AA35-62-1AHNC  
CLOSURE ASSESSMENT  
40.437499 / -104.394114  
SW¼ SW¼ SEC.36 T6N R63W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-38670  
REMEDIALION # 30294

FIGURE NO.  
5

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WH-SS-01@3'  
01/03/24  
3'

1-Methylnaphthalene = <0.002  
2-Methylnaphthalene = <0.002  
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-FS-01@4'  
01/03/24  
4'

1-Methylnaphthalene = **0.096\***  
2-Methylnaphthalene = **0.136\***  
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-04@3'  
01/03/24  
3'

1-Methylnaphthalene = 0.003  
2-Methylnaphthalene = 0.005  
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

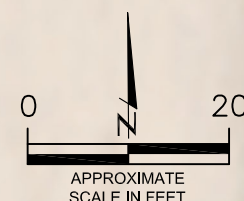
WH-SS-01  
WH-SS-04  
WH-FS-01  
WH-SS-02  
WH-SS-03

WH-SS-03@3'  
01/03/24  
3'

1-Methylnaphthalene = <0.002  
2-Methylnaphthalene = <0.002  
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-02@3'  
01/03/24  
3'

1-Methylnaphthalene = <0.002  
2-Methylnaphthalene = <0.002  
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-04@3'  
01/03/24  
3'

Arsenic = **3.48**  
Barium = 133\*  
Cadmium = 0.125  
Chromium (VI) = <0.244\*\*  
Copper = <9.20  
Lead = 5.08  
Nickel = 4.88  
Selenium = <0.0920  
Silver = <0.0920  
Zinc = 29.5

WH-SS-01@3'  
01/03/24  
3'

Arsenic = **3.92**  
Barium = 102\*  
Cadmium = 0.116  
Chromium (VI) = <0.244\*\*  
Copper = <9.17  
Lead = 5.32  
Nickel = 6.75  
Selenium = <0.0917  
Silver = <0.0917  
Zinc = 25.2

WH-FS-01@4'  
01/03/24  
4'

Arsenic = 2.61\*\*\*  
Barium = **7350\***  
Cadmium = 0.328  
Chromium (VI) = <0.244\*\*  
Copper = 13.9  
Lead = 3.91  
Nickel = 6.46  
Selenium = <0.0893  
Silver = <0.0893  
Zinc = 97.2

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

WH-SS-03@3'  
01/03/24  
3'

Arsenic = 2.23  
Barium = 87.7\*  
Cadmium = 0.200  
Chromium (VI) = <0.244\*\*  
Copper = <8.82  
Lead = 5.88  
Nickel = 6.84  
Selenium = <0.0882  
Silver = <0.0882  
Zinc = 33.7

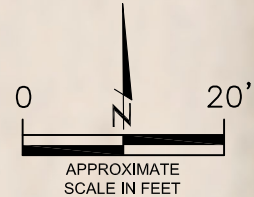
WH-SS-02@3'  
01/03/24  
3'

Arsenic = **3.78**  
Barium = 95.6\*  
Cadmium = 0.287  
Chromium (VI) = <0.244\*\*  
Copper = <9.12  
Lead = 6.85  
Nickel = 11.0  
Selenium = <0.0912  
Silver = <0.0912  
Zinc = 39.7

BACKGROUND-01@3'  
01/03/24  
3'

Arsenic = 2.68\*\*\*  
Barium = 123\*  
Cadmium = 0.195  
Chromium (VI) = <0.244\*\*  
Copper = <8.42  
Lead = 6.24  
Nickel = 7.88  
Selenium = <0.0842  
Silver = <0.0842  
Zinc = 28.4

BACKGROUND-01#



LEGEND

- WELLHEAD ASSESSMENT BOUNDARIES
- SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

# APPROXIMATE LOCATION OF BACKGROUND SAMPLE - SAMPLE TAKEN OFF PAD. BACKGROUND IMAGE NOT TO SCALE.

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.

ELEVATED METALS ARE NATURALLY OCCURRING IN COLORADO. THE LOCAL CLEAN-UP LEVELS ARE 1.25\*BACKGROUND CONCENTRATIONS.

VALUES PRESENTED IN **BOLD** EXCEED ECMC TABLE 915-1 REGULATORY LIMITS AND LOCAL CLEAN-UP LEVELS.

\*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.

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

METALS IN SOIL MAP  
WELLS RANCH #AA35-62-1AHNC  
CLOSURE ASSESSMENT  
40.437499 / -104.394114  
SW¼ SW¼ SEC.36 T6N R63W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-38670  
REMEDATION # 30294

FIGURE NO.  
6

DRAWN BY:  
RS



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## **TABLES**

**Table 1: Photoionization Detector Reading Summary**

**Table 2: Soil Analytical Results Summary**

**TABLE 1**  
**PHOTOIONIZATION DETECTOR READING SUMMARY**  
**WELLS RANCH #AA35-62-1AHNC**  
**CLOSURE ASSESSMENT**  
**40.437499 / -104.394114**  
**SW¼ SW¼ SEC.36 T6N R63W 6PM**  
**WELD COUNTY, COLORADO**  
**API # 05-123-38670**  
**REMEDIALTION # 30294**

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Lab Submission (Y/N)
WH-FS-01 @ 4' (40.437494 / -104.394132)	01/03/24	4	57.9	Y
WH-SS-01 @ 3' (40.437501 / -104.394132)	01/03/24	3	0.4	Y
WH-SS-02 @ 3' (40.437494 / -104.394124)	01/03/24	3	0.3	Y
WH-SS-03 @ 3' (40.437486 / -104.394132)	01/03/24	3	0.3	Y
WH-SS-04 @ 3' (40.437494 / -104.394145)	01/03/24	3	8.9	Y
WH-N @ 0.5' (40.437516 / -104.394138)	01/03/24	0.5	0.7	N
WH-E @ 0.5' (40.437497 / -104.394092)	01/03/24	0.5	0.9	N
WH-S @ 0.5' (40.437473 / -104.394132)	01/03/24	0.5	0.5	N
WH-W @ 0.5' (40.437501 / -104.394171)	01/03/24	0.5	0.3	N
Background-01 @ 3' (40.437714 / -104.393312)	01/03/24	3	0.2	Y
(Y/N) = Yes or No ppm-v = parts per million by volume PID = Photoionization Detector				





TABLE 2  
SOIL ANALYTICAL RESULTS SUMMARY  
WELLS RANCH #AA35-62-1AHNC  
CLOSURE ASSESSMENT  
40.437499 / -104.394114  
SW¼ SW¼ SEC.36 T6N R63W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-38670  
REMEDATION # 30294

Sample Location					WH-FS-01 @ 4'	WH-SS-01 @ 3'	WH-SS-02 @ 3'
(Latitude / Longitude)					(40.437494 / -104.394132)	(40.437501 / -104.394132)	(40.437494 / -104.394124)
Sample Date					1/3/2024	1/3/2024	1/3/2024
Sample Depth					4'	3'	3'
PID Reading (ppm-v)					57.9	0.4	0.3
Regulatory Limits							
Chemical of Concern	Units	ECMC Table 915-1 RSSLs	ECMC Table 915-1 GSSLs	Local Clean-Up Level			
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Benzene	mg/kg	1.2	0.0026	--	<b>0.0121*</b>	<0.00200	<0.00200
Toluene	mg/kg	490	0.69	--	0.158	<0.00200	<0.00200
Ethylbenzene	mg/kg	5.8	0.78	--	0.0522	<0.00200	<0.00200
Total Xylenes	mg/kg	58	9.9	--	0.371	<0.00200	<0.00200
Naphthalene	mg/kg	2	0.0038	--	<b>0.0218*</b>	<0.00380	<0.00380
1,2,4-Trimethylbenzene	mg/kg	30	0.0081	--	<b>0.137*</b>	<0.00200	<0.00200
1,3,5-Trimethylbenzene	mg/kg	27	0.0087	--	<b>0.0345*</b>	<0.00200	<0.00200
<b>TOTAL PETROLEUM HYDROCARBONS</b>							
TPH-GRO	mg/kg	500	--	--	8.19	<0.200	<0.200
TPH-DRO	mg/kg	500	--	--	65.6	<25.0	<25.0
TPH-RRO	mg/kg	500	--	--	<100	<100	<100
<b>POLYCYCLIC AROMATIC HYDROCARBONS</b>							
1-Methyl-naphthalene	mg/kg	18	0.006	--	<b>0.096*</b>	<0.002	<0.002
2-Methyl-naphthalene	mg/kg	24	0.019	--	<b>0.136*</b>	<0.002	<0.002
Acenaphthene	mg/kg	360	0.55	--	<0.020	<0.020	<0.020
Anthracene	mg/kg	1800	5.8	--	<0.020	<0.020	<0.020
Benzo(a)-anthracene	mg/kg	1.1	0.011	--	<0.005	<0.005	<0.005
Benzo(a)-pyrene	mg/kg	0.11	0.24	--	<0.020	<0.020	<0.020
Benzo(b)-fluoranthene	mg/kg	1.1	0.3	--	<0.020	<0.020	<0.020
Benzo(k)-fluoranthene	mg/kg	11	2.9	--	<0.020	<0.020	<0.020
Chrysene	mg/kg	110	9	--	<0.020	<0.020	<0.020
Dibenzo(a,h)-anthracene	mg/kg	0.11	0.096	--	<0.020	<0.020	<0.020
Fluoranthene	mg/kg	240	8.9	--	<0.020	<0.020	<0.020
Fluorene	mg/kg	240	0.54	--	<0.020	<0.020	<0.020
Indeno(1,2,3-cd)-pyrene	mg/kg	1.1	0.98	--	<0.020	<0.020	<0.020
Pyrene	mg/kg	180	1.3	--	<0.020	<0.020	<0.020
<b>SOIL SUITABILITY (Inorganics)</b>							
Boron	mg/L	2	--	--	0.243	0.105	0.110
pH	standard unit	6-8.3	--	--	<b>8.55</b>	<b>8.49</b>	<b>8.39</b>
Sodium Adsorption Ratio (SAR)	--	<6	--	--	0.617	1.04	0.632
Specific Conductance (EC)	mmhos/cm	<4	--	--	0.629	0.273	0.353
<b>METALS</b>							
Arsenic	mg/kg	0.68***	0.29***	3.35	2.61	<b>3.92*</b>	<b>3.78*</b>
Barium	mg/kg	15000	82	154*	<b>7350*</b>	102*	95.6*
Cadmium	mg/kg	71	0.38	0.244	0.328	0.116	0.287
Copper	mg/kg	3100	46	--	13.9	<9.17	<9.12
Lead	mg/kg	400	14	7.80	3.91	5.32	6.85
Nickel	mg/kg	1500	26	9.85	6.46	6.75	11.0
Selenium	mg/kg	390	0.26	--	<0.0893	<0.0917	<0.0912
Silver	mg/kg	390	0.8	--	<0.0893	<0.0917	<0.0912
Zinc	mg/kg	23000	370	35.5	97.2	25.2	39.7
Hexavalent Chromium	mg/kg	0.3**	0.00067**	0.1 to 1.0**	<0.244**	<0.244**	<0.244**
ECMC = Energy & Carbon Management Commission mg/kg = milligrams per kilogram mmhos/cm = millimhos per centimeter PID = Photoionization Detector ppm-v = parts per million by volume mg/L = milligrams per liter NA - Not Analyzed RSSLs = Residential Soil Screening Levels GSSLs = Protection of Groundwater Soil Screening Levels 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 the laboratory reporting limit and/or minimum detection limit Values presented in <b>BOLD</b> 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. Elevated metals are naturally occurring in Colorado. The Local Clean-up Levels are 1.25*Background concentrations.							

TABLE 2  
SOIL ANALYTICAL RESULTS SUMMARY  
WELLS RANCH #AA35-62-1AHNC  
CLOSURE ASSESSMENT  
40.437499 / -104.394114  
SW¼ SW¼ SEC.36 T6N R63W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-38670  
REMEDATION # 30294

Sample Location (Latitude / Longitude)				WH-SS-03 @ 3'	WH-SS-04 @ 3'	Background-01 @ 3'
				(40.437486 / -104.394132)	(40.437494 / -104.394145)	40.437714 / -104.393312)
Sample Date				1/3/2024	1/3/2024	1/3/2024
Sample Depth				3'	3'	3'
PID Reading (ppm-v)				0.3	8.9	0.2
Regulatory Limits						
Chemical of Concern	Units	ECMC Table 915-1 RSSLs	ECMC Table 915-1 GSSLs	Local Clean-Up Level		
<b>VOLATILE ORGANIC COMPOUNDS</b>						
Benzene	mg/kg	1.2	0.0026	--	<0.00200	<0.00200
Toluene	mg/kg	490	0.69	--	<0.00200	<0.00200
Ethylbenzene	mg/kg	5.8	0.78	--	<0.00200	<0.00200
Total Xylenes	mg/kg	58	9.9	--	<0.00200	<0.00200
Naphthalene	mg/kg	2	0.0038	--	<0.00380	<0.00380
1,2,4-Trimethylbenzene	mg/kg	30	0.0081	--	<0.00200	<0.00200
1,3,5-Trimethylbenzene	mg/kg	27	0.0087	--	<0.00200	<0.00200
<b>TOTAL PETROLEUM HYDROCARBONS</b>						
TPH-GRO	mg/kg	500	--	--	<0.200	<0.200
TPH-DRO	mg/kg	500	--	--	<25.0	<25.0
TPH-RRO	mg/kg	500	--	--	<100	<100
<b>POLYCYCLIC AROMATIC HYDROCARBONS</b>						
1-Methyl-naphthalene	mg/kg	18	0.006	--	<0.002	<0.002
2-Methyl-naphthalene	mg/kg	24	0.019	--	<0.002	<0.002
Acenaphthene	mg/kg	360	0.55	--	<0.020	<0.020
Anthracene	mg/kg	1800	5.8	--	<0.020	<0.020
Benzo(a)-anthracene	mg/kg	1.1	0.011	--	<0.005	<0.005
Benzo(a)-pyrene	mg/kg	0.11	0.24	--	<0.020	<0.020
Benzo(b)-fluoranthene	mg/kg	1.1	0.3	--	<0.020	<0.020
Benzo(k)-fluoranthene	mg/kg	11	2.9	--	<0.020	<0.020
Chrysene	mg/kg	110	9	--	<0.020	<0.020
Dibenzo(a,h)-anthracene	mg/kg	0.11	0.096	--	<0.020	<0.020
Fluoranthene	mg/kg	240	8.9	--	<0.020	<0.020
Fluorene	mg/kg	240	0.54	--	<0.020	<0.020
Indeno(1,2,3-cd)-pyrene	mg/kg	1.1	0.98	--	<0.020	<0.020
Pyrene	mg/kg	180	1.3	--	<0.020	<0.020
<b>SOIL SUITABILITY (Inorganics)</b>						
Boron	mg/L	2	--	--	<0.100	<0.0990
pH	standard unit	6-8.3	--	--	<b>8.53</b>	<b>8.41</b>
Sodium Adsorption Ratio (SAR)	--	<6	--	--	0.494	0.295
Specific Conductance (EC)	mmhos/cm	<4	--	--	0.412	0.234
<b>METALS</b>						
Arsenic	mg/kg	0.68***	0.29***	3.35	2.23	<b>3.48*</b>
Barium	mg/kg	15000	82	154*	87.7*	133*
Cadmium	mg/kg	71	0.38	0.244	0.200	0.125
Copper	mg/kg	3100	46	--	<8.82	<9.20
Lead	mg/kg	400	14	7.80	5.88	5.08
Nickel	mg/kg	1500	26	9.85	6.84	4.88
Selenium	mg/kg	390	0.26	--	<0.0882	<0.0920
Silver	mg/kg	390	0.8	--	<0.0882	<0.0920
Zinc	mg/kg	23000	370	35.5	33.7	29.5
Hexavalent Chromium	mg/kg	0.3**	0.00067**	0.1 to 1.0**	<0.244**	<0.244**
ECMC = Energy & Carbon Management Commission mg/kg = milligrams per kilogram mmhos/cm = millimhos per centimeter PID = Photoionization Detector ppm-v = parts per million by volume mg/L = milligrams per liter NA - Not Analyzed RSSLs = Residential Soil Screening Levels GSSLs = Protection of Groundwater Soil Screening Levels 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 the laboratory reporting limit and/or minimum detection limit Values presented in <b>BOLD</b> 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. Elevated metals are naturally occurring in Colorado. The Local Clean-up Levels are 1.25*Background concentrations.						



## **ATTACHMENT A**

### **Photo Log**

Wells Ranch #AA35-62-1AHNC  
API # 05-123-38670  
Remediation # 30294

Closure Assessment

January 2024





## Wellhead Excavation – 01/03/24



Looking northeast

Petroleum hydrocarbon odor observed. No petroleum hydrocarbon staining observed. Sample collected from pea gravel/loose material inside of the casing collar



## Wellhead Excavation – 01/03/24



Looking south

No petroleum hydrocarbon staining or odor observed



Looking west

No petroleum hydrocarbon staining or odor observed

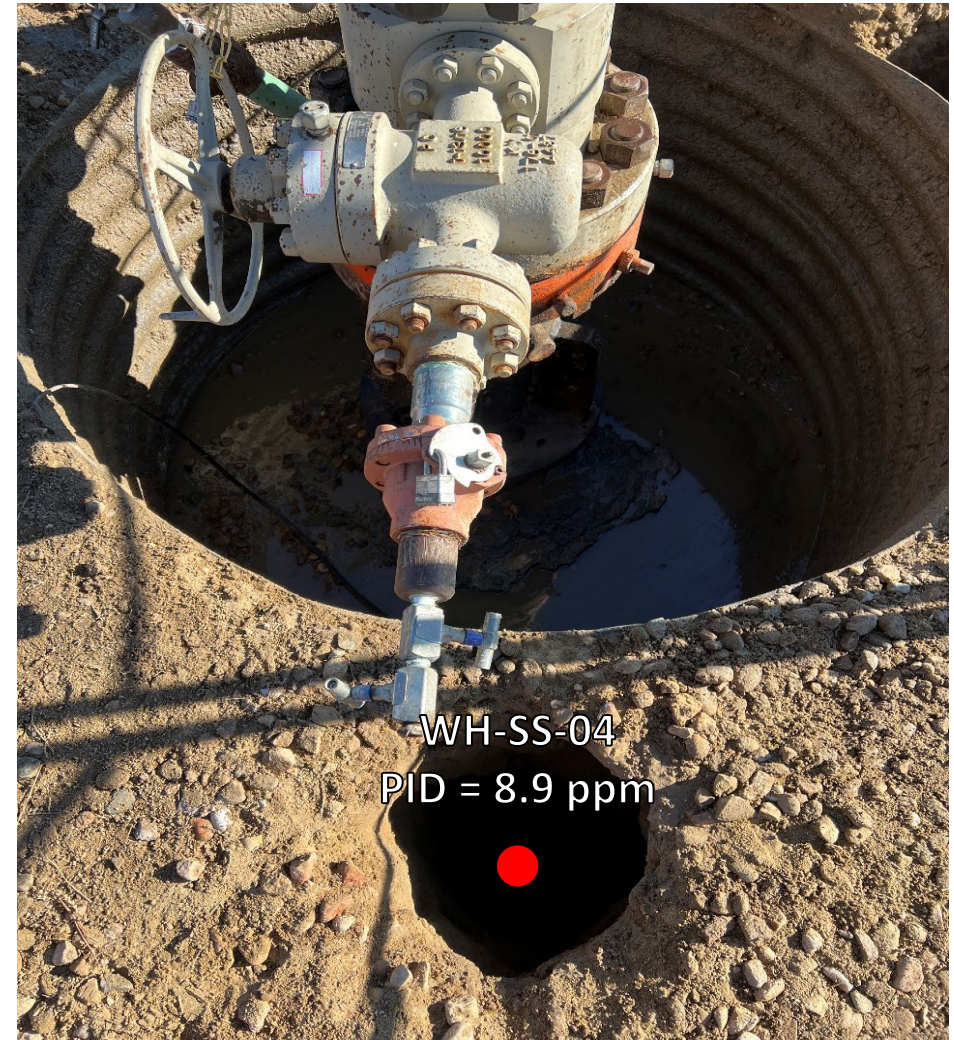


## Wellhead Excavation – 01/03/24



Looking north

No petroleum hydrocarbon staining or odor observed



Looking east

Slight petroleum hydrocarbon odor observed. No petroleum hydrocarbon staining observed



## Wellhead Surface – 01/03/24



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 – 01/03/24



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 16, 2024

Eagle Environmental Consulting, LLC

Andrew Newberry

8000 W 44th Ave

Wheat Ridge CO 80033

**Project Name - Noble - Wells Ranch  
#AA35-62-1AHNC**

**Project Number - [none]**

Attached are your analytical results for Noble - Wells Ranch #AA35-62-1AHNC received by Origins Laboratory, Inc. January 04, 2024. This project is associated with Origins project number Y401078-01.

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 - Wells Ranch #AA35-62-1AHNC

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH-SS-01@3'	Y401078-01	Soil	January 3, 2024 12:46	01/04/2024 15:17
WH-SS-02@3'	Y401078-02	Soil	January 3, 2024 12:48	01/04/2024 15:17
WH-SS-03@3'	Y401078-03	Soil	January 3, 2024 12:50	01/04/2024 15:17
WH-SS-04@3'	Y401078-04	Soil	January 3, 2024 12:52	01/04/2024 15:17
WH-FS-01@4'	Y401078-05	Soil	January 3, 2024 12:54	01/04/2024 15:17
Background-01@3'	Y401078-06	Soil	January 3, 2024 13:15	01/04/2024 15:17

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.*



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

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 4401078

Client: Eagle

Client Project ID: Wells Ranch AA35-62-1A4

Checklist Completed by: SLK

Shipped Via: HD

Date/time completed: 1/4/24

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

Airbill #: N/A

Matrix(s) Received: (Check all that apply): 0 Soil/Solid      Water      Other:     

Cooler Number/Temperature: 1118 °C      °C      °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> ?	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)			X	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)			X	
Were all samples received intact <sup>(1)</sup> ?	X			
Was adequate sample volume provided <sup>(1)</sup> ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		X		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	X			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	X			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	X			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	X			
For volatiles in water – is there headspace (> ½ inch bubble) present? If yes, contact client and note in narrative.			X	
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)			X	
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: JP (Project Manager)

Date/Time Reviewed: 1-5-24

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 - Wells Ranch #AA35-62-1AHNC

WH-SS-01@3'  
1/3/2024 12:46:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-01 (Soil)

### Boron (DTPA Sorbitol)

Boron	0.105	0.100	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	B4A0517	01/05/2024	01/08/2024	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	85.6 %	50-150			"	"	"	
------------------------	--------	--------	--	--	---	---	---	--

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B4A0430	01/04/2024	01/06/2024	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

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.

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

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

WH-SS-01@3'  
1/3/2024 12:46:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-01 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 1,2-Dichloroethane-d4	114 %	70-130	B4A04 30	01/04/2024	01/06/2024
Surrogate: Toluene-d8	96.7 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	88.7 %	70-130	"	"	"

## Metals by Saturated Paste by EPA 6010

Calcium	1.28	0.499	meq/L	10	[CALC]	01/06/2024	01/08/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	0.983	0.435	"	"	"	"	"

## PAH by EPA 8270E

1-Methylnaphthalene	ND	0.002	mg/kg	1	B4A0506	01/05/2024	01/05/2024	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 (k) fluoranthene	ND	0.020	"	"	"	"	"	U
Chrysene	ND	0.020	"	"	"	"	"	U
Dibenz (a,h) anthracene	ND	0.020	"	"	"	"	"	U

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.

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

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

WH-SS-01@3'  
1/3/2024 12:46:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y401078-01 (Soil)**

**PAH by EPA 8270E**

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

Surrogate: Fluorene-d10	97.4 %	60-130	"	"	"
Surrogate: Anthracene-d10	97.3 %	60-130	"	"	"
Surrogate: Pyrene-d10	103 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	99.3 %	60-130	"	"	"

**pH in Soil by 9045D**

pH	8.49	pH Units	1	B4A0608	01/06/2024	01/08/2024
----	------	----------	---	---------	------------	------------

**SAR by 20B Saturated Paste**

SAR	1.04	0.0100	SAR	1	B4A0604	01/06/2024	01/08/2024
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.273	0.00500	mmhos/cm	1	B4A0608	01/06/2024	01/08/2024
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**Table 915 metals by EPA 6020B**

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.

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

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

WH-SS-01@3'

1/3/2024 12:46:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-01 (Soil)

## Table 915 metals by EPA 6020B

Arsenic	3.92	0.0917	mg/kg	10	B4A0437	01/05/2024	01/08/2024
Barium	102	9.17	"	"	"	"	"
Cadmium	0.116	0.0917	"	"	"	"	"
Copper	ND	9.17	"	"	"	"	"
Lead	5.32	0.917	"	"	"	"	"
Nickel	6.75	0.917	"	"	"	"	"
Selenium	ND	0.0917	"	"	"	"	"
Silver	ND	0.0917	"	"	"	"	"
Zinc	25.2	9.17	"	"	"	"	"

## Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L727055	01/03/2024	01/11/2024
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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.



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

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

WH-SS-02@3'  
1/3/2024 12:48:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-02 (Soil)

**Boron (DTPA Sorbitol)**

Boron	0.110	0.101	mg/L	1	B4A0508	01/05/2024	01/08/2024	
-------	-------	-------	------	---	---------	------------	------------	--

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B4A0517	01/05/2024	01/08/2024	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	87.0 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B4A0430	01/04/2024	01/06/2024	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

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.

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

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

WH-SS-02@3'  
1/3/2024 12:48:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-02 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 1,2-Dichloroethane-d4	115 %	70-130	B4A04 30	01/04/2024	01/06/2024
Surrogate: Toluene-d8	96.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	89.5 %	70-130	"	"	"

## Metals by Saturated Paste by EPA 6010

Calcium	2.13	0.499	meq/L	10	[CALC]	01/06/2024	01/08/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	0.760	0.435	"	"	"	"	"

## PAH by EPA 8270E

1-Methylnaphthalene	ND	0.002	mg/kg	1	B4A0506	01/05/2024	01/05/2024	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 (k) fluoranthene	ND	0.020	"	"	"	"	"	U
Chrysene	ND	0.020	"	"	"	"	"	U
Dibenz (a,h) anthracene	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 - Wells Ranch #AA35-62-1AHNC

WH-SS-02@3'  
1/3/2024 12:48:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-02 (Soil)

### PAH by EPA 8270E

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

Surrogate: Fluorene-d10	97.9 %	60-130	"	"	"
Surrogate: Anthracene-d10	94.8 %	60-130	"	"	"
Surrogate: Pyrene-d10	103 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	97.2 %	60-130	"	"	"

### pH in Soil by 9045D

pH	8.39	pH Units	1	B4A0608	01/06/2024	01/08/2024
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### SAR by 20B Saturated Paste

SAR	0.632	0.0100	SAR	1	B4A0604	01/06/2024	01/08/2024
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### Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.353	0.00500	mmhos/cm	1	B4A0608	01/06/2024	01/08/2024
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### Table 915 metals by EPA 6020B

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 - Wells Ranch #AA35-62-1AHNC

WH-SS-02@3'

1/3/2024 12:48:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-02 (Soil)

## Table 915 metals by EPA 6020B

Arsenic	3.78	0.0912	mg/kg	10	B4A0437	01/05/2024	01/08/2024
Barium	95.6	9.12	"	"	"	"	"
Cadmium	0.287	0.0912	"	"	"	"	"
Copper	ND	9.12	"	"	"	"	"
Lead	6.85	0.912	"	"	"	"	"
Nickel	11.0	0.912	"	"	"	"	"
Selenium	ND	0.0912	"	"	"	"	"
Silver	ND	0.0912	"	"	"	"	"
Zinc	39.7	9.12	"	"	"	"	"

## Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L727055	01/03/2024	01/11/2024
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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.

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

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

WH-SS-03@3'  
1/3/2024 12:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-03 (Soil)

**Boron (DTPA Sorbitol)**

Boron	ND	0.100	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	B4A0517	01/05/2024	01/08/2024	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	80.0 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B4A0430	01/04/2024	01/06/2024	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

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 - Wells Ranch #AA35-62-1AHNC

WH-SS-03@3'  
1/3/2024 12:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-03 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 1,2-Dichloroethane-d4	117 %	70-130	B4A04 30	01/04/2024	01/06/2024
Surrogate: Toluene-d8	96.7 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	89.0 %	70-130	"	"	"

## Metals by Saturated Paste by EPA 6010

Calcium	ND	0.499	meq/L	10	[CALC]	01/06/2024	01/08/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	ND	0.435	"	"	"	"	"

## PAH by EPA 8270E

1-Methylnaphthalene	ND	0.002	mg/kg	1	B4A0506	01/05/2024	01/05/2024	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 (k) fluoranthene	ND	0.020	"	"	"	"	"	U
Chrysene	ND	0.020	"	"	"	"	"	U
Dibenz (a,h) anthracene	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 - Wells Ranch #AA35-62-1AHNC

WH-SS-03@3'  
1/3/2024 12:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-03 (Soil)

## PAH by EPA 8270E

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

Surrogate: Fluorene-d10	97.2 %	60-130	"	"	"
Surrogate: Anthracene-d10	96.4 %	60-130	"	"	"
Surrogate: Pyrene-d10	101 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	100 %	60-130	"	"	"

## pH in Soil by 9045D

pH	8.53	pH Units	1	B4A0608	01/06/2024	01/08/2024
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## SAR by 20B Saturated Paste

SAR	0.494	0.0100	SAR	1	B4A0604	01/06/2024	01/08/2024
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.412	0.00500	mmhos/cm	1	B4A0608	01/06/2024	01/08/2024
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## Table 915 metals by EPA 6020B

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 - Wells Ranch #AA35-62-1AHNC

WH-SS-03@3'

1/3/2024 12:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-03 (Soil)

## Table 915 metals by EPA 6020B

Arsenic	2.23	0.0882	mg/kg	10	B4A0437	01/05/2024	01/08/2024
Barium	87.7	8.82	"	"	"	"	"
Cadmium	0.200	0.0882	"	"	"	"	"
Copper	ND	8.82	"	"	"	"	"
Lead	5.88	0.882	"	"	"	"	"
Nickel	6.84	0.882	"	"	"	"	"
Selenium	ND	0.0882	"	"	"	"	"
Silver	ND	0.0882	"	"	"	"	"
Zinc	33.7	8.82	"	"	"	"	"

## Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L727059	01/03/2024	01/11/2024
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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.

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

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

WH-SS-04@3'  
1/3/2024 12:52:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-04 (Soil)

## Boron (DTPA Sorbitol)

Boron	ND	0.0990	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	B4A0517	01/05/2024	01/08/2024	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	82.3 %	50-150	"	"	"
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## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B4A0430	01/04/2024	01/06/2024	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

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 - Wells Ranch #AA35-62-1AHNC

WH-SS-04@3'  
1/3/2024 12:52:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-04 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 1,2-Dichloroethane-d4	117 %	70-130	B4A04 30	01/04/2024	01/06/2024
Surrogate: Toluene-d8	96.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	90.2 %	70-130	"	"	"

## Metals by Saturated Paste by EPA 6010

Calcium	1.21	0.499	meq/L	10	[CALC]	01/06/2024	01/08/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	ND	0.435	"	"	"	"	"

## PAH by EPA 8270E

1-Methylnaphthalene	0.003	0.002	mg/kg	1	B4A0506	01/05/2024	01/05/2024
2-Methylnaphthalene	0.005	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

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 - Wells Ranch #AA35-62-1AHNC

WH-SS-04@3'  
1/3/2024 12:52:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y401078-04 (Soil)**

**PAH by EPA 8270E**

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

Surrogate: Fluorene-d10	97.6 %	60-130	"	"	"
Surrogate: Anthracene-d10	95.8 %	60-130	"	"	"
Surrogate: Pyrene-d10	102 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	102 %	60-130	"	"	"

**pH in Soil by 9045D**

pH	8.41	pH Units	1	B4A0608	01/06/2024	01/08/2024
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**SAR by 20B Saturated Paste**

SAR	0.295	0.0100	SAR	1	B4A0604	01/06/2024	01/08/2024
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.234	0.00500	mmhos/cm	1	B4A0608	01/06/2024	01/08/2024
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**Table 915 metals by EPA 6020B**

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 - Wells Ranch #AA35-62-1AHNC

WH-SS-04@3'

1/3/2024 12:52:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-04 (Soil)

## Table 915 metals by EPA 6020B

Arsenic	3.48	0.0920	mg/kg	10	B4A0437	01/05/2024	01/08/2024
Barium	133	9.20	"	"	"	"	"
Cadmium	0.125	0.0920	"	"	"	"	"
Copper	ND	9.20	"	"	"	"	"
Lead	5.08	0.920	"	"	"	"	"
Nickel	4.88	0.920	"	"	"	"	"
Selenium	ND	0.0920	"	"	"	"	"
Silver	ND	0.0920	"	"	"	"	"
Zinc	29.5	9.20	"	"	"	"	"

## Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L727059	01/03/2024	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 - Wells Ranch #AA35-62-1AHNC

WH-FS-01@4'  
1/3/2024 12:54:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-05 (Soil)

## Boron (DTPA Sorbitol)

Boron	0.243	0.102	mg/L	1	B4A0508	01/05/2024	01/08/2024
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## DRO/ORO by EPA 8015D

Diesel (C10-C28)	65.6	25.0	mg/kg	1	B4A0517	01/05/2024	01/08/2024
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	" U

Surrogate: o-Terphenyl	84.4 %	50-150	"	"	"
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## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.137	0.00200	mg/kg	1	B4A0430	01/04/2024	01/06/2024
1,3,5-Trimethylbenzene	0.0345	0.00200	"	"	"	"	"
Benzene	0.0121	0.00200	"	"	"	"	"
Ethylbenzene	0.0522	0.00200	"	"	"	"	"
Naphthalene	0.0218	0.00380	"	"	"	"	"
Toluene	0.158	0.00200	"	"	"	"	"
Xylenes, total	0.371	0.00200	"	"	"	"	"
Gasoline Range Hydrocarbons	8.19	0.200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	112 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"

Origins Laboratory, Inc.



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

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

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

WH-FS-01@4'  
1/3/2024 12:54:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-05 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: 4-Bromofluorobenzene	87.4 %	70-130	B4A04 30	01/04/2024	01/06/2024
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## Metals by Saturated Paste by EPA 6010

Calcium	3.02	0.499	meq/L	10	[CALC]	01/06/2024	01/08/2024
Magnesium	ND	0.823	"	"	"	"	"
Sodium	0.845	0.435	"	"	"	"	"

## PAH by EPA 8270E

1-Methylnaphthalene	0.096	0.002	mg/kg	1	B4A0506	01/05/2024	01/05/2024	
2-Methylnaphthalene	0.136	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
Fluorene	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 - Wells Ranch #AA35-62-1AHNC

WH-FS-01@4'  
1/3/2024 12:54:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y401078-05 (Soil)**

**PAH by EPA 8270E**

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

Surrogate: Fluorene-d10	98.8 %	60-130	"	"	"
Surrogate: Anthracene-d10	97.2 %	60-130	"	"	"
Surrogate: Pyrene-d10	97.9 %	60-130	"	"	"
Surrogate: Benzo (a) pyrene-d12	101 %	60-130	"	"	"

**pH in Soil by 9045D**

pH	8.55	pH Units	1	B4A0608	01/06/2024	01/08/2024
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**SAR by 20B Saturated Paste**

SAR	0.617	0.0100	SAR	1	B4A0604	01/06/2024	01/08/2024
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.629	0.00500	mmhos/cm	1	B4A0608	01/06/2024	01/08/2024
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**Table 915 metals by EPA 6020B**

Arsenic	2.61	0.0893	mg/kg	10	B4A0437	01/05/2024	01/08/2024
Barium	7350	8.93	"	"	"	"	"

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 - Wells Ranch #AA35-62-1AHNC

WH-FS-01@4'

1/3/2024 12:54:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y401078-05 (Soil)

## Table 915 metals by EPA 6020B

Cadmium	0.328		0.0893	mg/kg	10	B4A0437	01/05/2024	01/08/2024	
Copper	13.9		8.93	"	"	"	"	"	"
Lead	3.91		0.893	"	"	"	"	"	"
Nickel	6.46		0.893	"	"	"	"	"	"
Selenium	ND		0.0893	"	"	"	"	"	"
Silver	ND		0.0893	"	"	"	"	"	"
Zinc	97.2		8.93	"	"	"	"	"	"

## Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L727059	01/03/2024	01/11/2024	
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Eagle Environmental Consulting, LLC  
8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

**Background-01@3'**  
**1/3/2024 1:15:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y401078-06 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.165	0.0991	mg/L	1	B4A0508	01/05/2024	01/08/2024
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**Metals by Saturated Paste by EPA 6010**

Calcium	1.99	0.499	meq/L	10	[CALC]	01/06/2024	01/08/2024
Magnesium	0.846	0.823	"	"	"	"	"
Sodium	0.634	0.435	"	"	"	"	"

**pH in Soil by 9045D**

pH	8.46		pH Units	1	B4A0608	01/06/2024	01/08/2024
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**SAR by 20B Saturated Paste**

SAR	0.532	0.0100	SAR	1	B4A0604	01/06/2024	01/08/2024
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**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.324	0.00500	mmhos/cm	1	B4A0608	01/06/2024	01/08/2024
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**Table 915 metals by EPA 6020B**

Arsenic	2.68	0.0842	mg/kg	10	B4A0437	01/05/2024	01/08/2024
Barium	123	8.42	"	"	"	"	"
Cadmium	0.195	0.0842	"	"	"	"	"
Copper	ND	8.42	"	"	"	"	"

Origins Laboratory, Inc.



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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

**Background-01@3'**  
**1/3/2024 1:15:00PM**

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y401078-06 (Soil)**

**Table 915 metals by EPA 6020B**

Lead	6.24	0.842	mg/kg	10	B4A0437	01/05/2024	01/08/2024
Nickel	7.88	0.842	"	"	"	"	"
Selenium	ND	0.0842	"	"	"	"	"
Silver	ND	0.0842	"	"	"	"	"
Zinc	28.4	8.42	"	"	"	"	"

**Total Metals by 7196A**

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L727059	01/03/2024	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 - Wells Ranch #AA35-62-1AHNC

**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 B4A0430 - EPA 5030 (soil)</b>										
<b>Blank (B4A0430-BLK1)</b>					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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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

**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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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

**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 B4A0430 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B4A0430-MS1)</b>		<b>Source: Y401053-01</b>			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			

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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

## 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 - Wells Ranch #AA35-62-1AHNC

## 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 B4A0517 - EPA 3550B										
Blank (B4A0517-BLK1)					Prepared: 01/05/2024 Analyzed: 01/08/2024					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	22		"	24.9		87.6	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 - Wells Ranch #AA35-62-1AHNC

## 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 B4A0517 - EPA 3550B

#### LCS (B4A0517-BS1)

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

Diesel (C10-C28)	858	50.0	mg/kg	1000		85.8	70-130			
Residual Range Organics (C28-C40)	1000	200	"	1000		100	70-130			
Surrogate: o-Terphenyl	55		"	49.8		111	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 - Wells Ranch #AA35-62-1AHNC

## 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 B4A0517 - EPA 3550B

Matrix Spike (B4A0517-MS1)		Source: Y401074-01			Prepared: 01/05/2024 Analyzed: 01/08/2024					
Diesel (C10-C28)	865	50.0	mg/kg	1000	ND	86.5	70-130			
Residual Range Organics (C28-C40)	1010	200	"	1000	ND	101	70-130			
Surrogate: o-Terphenyl	53		"	49.8		107	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 - Wells Ranch #AA35-62-1AHNC

## 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 B4A0517 - EPA 3550B										
Matrix Spike Dup (B4A0517-MSD1)		Source: Y401074-01			Prepared: 01/05/2024 Analyzed: 01/08/2024					
Diesel (C10-C28)	859	50.0	mg/kg	1000	ND	85.9	70-130	0.724	35	
Residual Range Organics (C28-C40)	1000	200	"	1000	ND	100	70-130	1.04	35	
Surrogate: o-Terphenyl	43		"	49.8		86.1	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 - Wells Ranch #AA35-62-1AHNC

## 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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## 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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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

**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**

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	

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 - Wells Ranch #AA35-62-1AHNC

**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			

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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Wells Ranch #AA35-62-1AHNC

**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

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Andrew Newberry  
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**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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**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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Project: Noble - Wells Ranch #AA35-62-1AHNC

## Classical Chemistry Parameters - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B4A0508 - DTPA Sorbitol Preparation</b>										
<b>Blank (B4A0508-BLK1)</b>					Prepared: 01/05/2024 Analyzed: 01/08/2024					
Boron	ND	0.100	mg/L							
<b>Duplicate (B4A0508-DUP1)</b>					Source: Y401072-01 Prepared: 01/05/2024 Analyzed: 01/08/2024					
Boron	0.537	0.0995	mg/L		0.615			13.5	50	
<b>Batch B4A0604 - Saturated Paste Metals</b>										
<b>Blank (B4A0604-BLK1)</b>					Prepared: 01/06/2024 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	"							
<b>Duplicate (B4A0604-DUP1)</b>					Source: Y401078-01 Prepared: 01/06/2024 Analyzed: 01/08/2024					
Calcium PPM	26.6	10.0	mg/L		25.7			3.25	50	
SAR	ND	0.0100	SAR		1.04				200	
Magnesium PPM	6.35	10.0	mg/L		6.05			4.84	50	
Sodium PPM	23.2	10.0	"		22.6			2.75	50	

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4A0608 - Saturated Paste pH/EC										
Blank (B4A0608-BLK1)					Prepared: 01/06/2024 Analyzed: 01/08/2024					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							
Duplicate (B4A0608-DUP1)					Source: Y401078-01 Prepared: 01/06/2024 Analyzed: 01/08/2024					
pH	8.16		pH Units		8.49			3.96	25	
Specific Conductance (EC)	0.305	0.00500	mmhos/cm		0.273			11.0	25	

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Project: Noble - Wells Ranch #AA35-62-1AHNC

## 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 L727059 -										
<b>DUP (L 92154-DUP)</b>	<b>Source: 92154</b>				Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	ND	0.5	mg/Kg		<0.500	-		0	20	
<b>MS (L 92154-MS)</b>	<b>Source: 92154</b>				Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	28.3	2.5	mg/Kg	39.6	<1.22	71	75-125			*
<b>LCS (LCS)</b>					Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	6.15	0.5	mg/Kg	8		77	75-125			
<b>LRB (LRB)</b>					Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

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Project: Noble - Wells Ranch #AA35-62-1AHNC

## 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
<b>Batch L727055 -</b>										
<b>DUP (L 92068-DUP)</b>	<b>Source: 92068</b>				Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	ND	0.5	mg/Kg		<0.500	-		0	20	
<b>MS (L 92068-MS)</b>	<b>Source: 92068</b>				Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	35.5	2.5	mg/Kg	39.5	<1.22	90	75-125			
<b>LCS (LCS)</b>					Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	6.24	0.5	mg/Kg	8		78	75-125			
<b>LRB (LRB)</b>					Prepared: Analyzed: 01/11/2024					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

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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.

\* 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.

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

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Jordan A. Bynon, Project Manager