



## **FIGURES**

**Figure 1: Topographic Site Location Map**

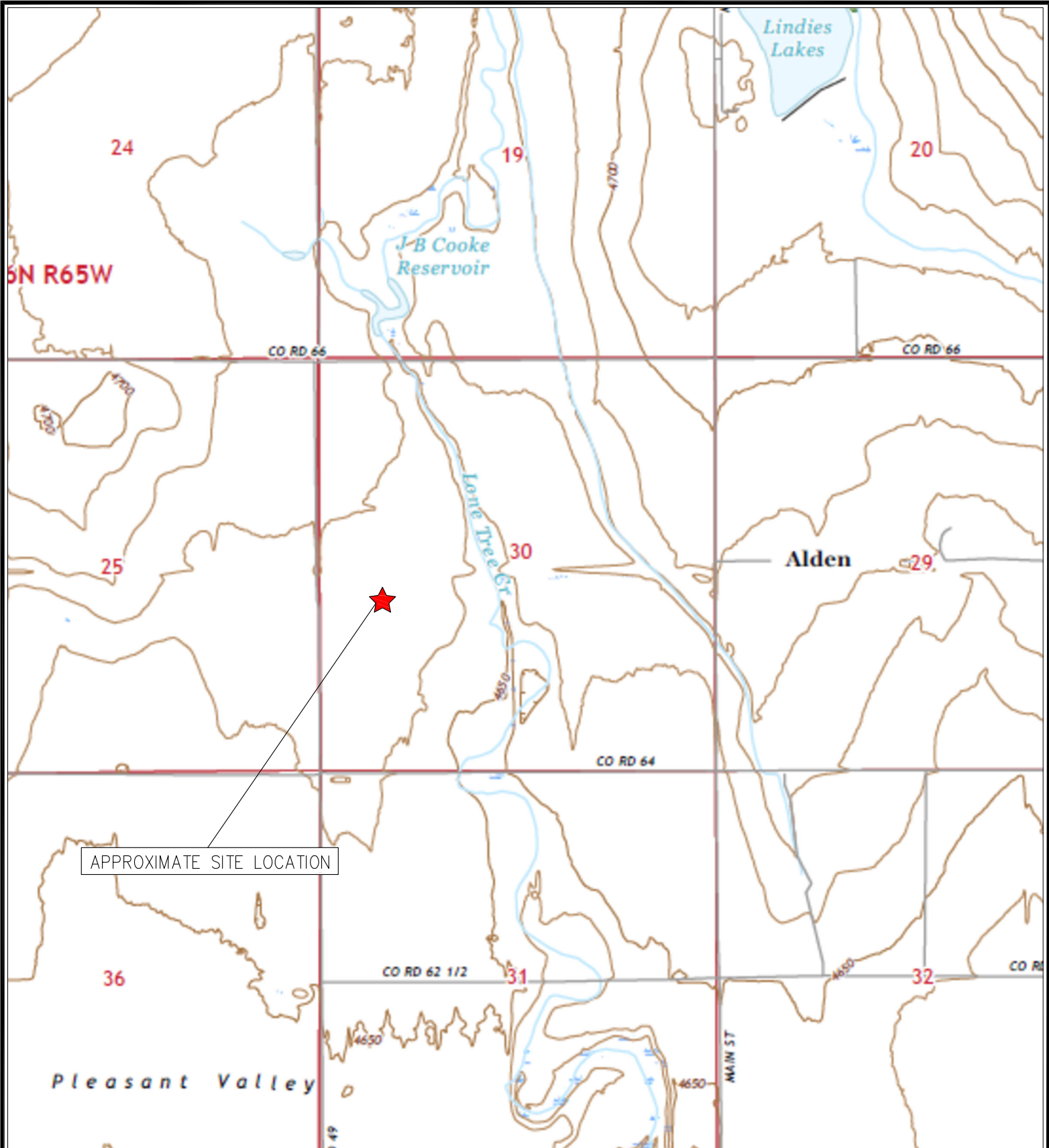
**Figure 2: Aerial Site Location Map**

**Figure 3: Soil Boring Metals in Soil Map**

**Figure 4: Groundwater Analytical Map**

**Figure 5: Inorganic Groundwater Parameters Map**

**Figure 6: Dissolved Metals Analytical Map**



APPROXIMATE SITE LOCATION



TOPOGRAPHIC SITE LOCATION MAP  
 ROTH #12-30  
 HISTORICAL RELEASE  
 40.455025 / -104.599906  
 NW¼ SW¼ SEC.30 T6N R64W 6PM  
 WELD COUNTY, COLORADO  
 API # 05-123-13046  
 REMEDIATION # 22292



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


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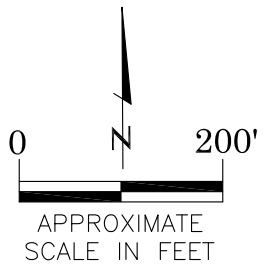
SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP,  
 KERSEY, CO QUADRANGLE 2022

FIGURE NO. 1



LEGEND

-  FORMER ROTH #12-30 WELLHEAD (PLUGGED AND ABANDONED)
-  ASSOCIATED SEPARATOR
-  APPROXIMATE FLOWLINE LOCATION



AERIAL SITE LOCATION MAP  
ROTH #12-30  
HISTORICAL RELEASE  
40.455025 / -104.599906  
NW¼ SW¼ SEC.30 T6N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-13046  
REMEDATION # 22292

FIG. NO.
2
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# LEGEND

--- INITIAL ASSESSMENT BOUNDARIES

⊕ APPROXIMATE MONITORING WELL LOCATIONS

## PARAMETERS

SAMPLE LOCATION  
DATE SAMPLE COLLECTED  
APPROXIMATE DEPTH  
Arsenic = (mg/kg)  
Barium = (mg/kg)  
Cadmium = (mg/kg)  
Lead = (mg/kg)  
Selenium = (mg/kg)

mg/kg = MILLIGRAMS PER KILOGRAM

NOTES:  
ELEVATED METALS ARE NATURALLY OCCURRING IN COLORADO. LOCAL CLEAN-UP LEVELS ARE 1.25\*LOCAL BACKGROUND HIGH CONCENTRATIONS, WHERE APPLICABLE.

VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID CONTAIN CONCENTRATIONS AT OR ABOVE THE LABORATORY REPORTING LIMIT OR MINIMUM DETECTION LEVELS.

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

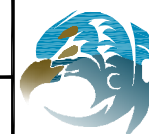
VALUES PRESENTED WITH ASTERISK (\*) EXCEED ECMC TABLE 915-1 GROUNDWATER SOIL SCREENING LEVELS, ONLY

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

SOIL BORING METALS IN SOIL MAP  
ROTH #12-30  
HISTORICAL RELEASE  
40.455025 / -104.599906  
NW¼ SW¼ SEC.30 T6N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-13046  
REMEDATION # 22292

FIGURE NO.  
3

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BKG-01@5-7.5'  
10/06/23  
5-7.5'  
Arsenic = 2.17  
Barium = 133\*  
Lead = <8.87  
Selenium = <0.0887

BACKGROUND-01

MW-02@5-7.5'  
10/06/23  
5-7.5'  
Arsenic = 3.81  
Barium = 161\*  
Lead = <9.54  
Selenium = <0.0882

MW-02

BKG-02@5-7.5'  
10/06/23  
5-7.5'  
Arsenic = 3.19  
Barium = 374\*  
Lead = <9.04  
Selenium = <0.0904

BACKGROUND-02

MW-05@5-7.5'  
10/06/23  
5-7.5'  
Arsenic = 2.09  
Barium = 30.7  
Lead = <8.78  
Selenium = <0.0878

MW-05

MW-01@5-7.5'  
10/06/23  
5-7.5'  
Arsenic = 3.81  
Barium = 71.4  
Lead = <8.35  
Selenium = <0.0835

MW-01

MW-03@5-7.5'  
10/06/23  
5-7.5'  
Arsenic = 2.40  
Barium = 68.1  
Lead = <9.15  
Selenium = <0.0915

MW-03

BACKGROUND-03

BKG-05@5-7.5'  
10/06/23  
5-7.5'  
Arsenic = 2.42  
Barium = 158\*  
Lead = <8.85  
Selenium = <0.0885

BACKGROUND-05

MW-04@5-7.5'  
10/06/23  
5-7.5'  
Arsenic = 1.46  
Barium = 24.7  
Lead = <9.03  
Selenium = <0.0903

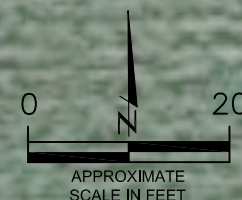
MW-04

BACKGROUND-01

BKG-03@5-7.5'  
10/06/23  
5-7.5'  
Arsenic = 2.82  
Barium = 155\*  
Lead = <8.79  
Selenium = <0.0879

BACKGROUND-04

BKG-04@5-7.5'  
10/06/23  
5-7.5'  
Arsenic = 2.87  
Barium = 126\*  
Lead = <9.33  
Selenium = <0.0933







# LEGEND

- INITIAL ASSESSMENT BOUNDARIES
- APPROXIMATE MONITORING WELL LOCATIONS

## PARAMETERS

GROUNDWATER SAMPLE LOCATION  
DATE  
B = BENZENE (µg/L)  
T = TOLUENE (µg/L)  
E = ETHYLBENZENE (µg/L)  
X = TOTAL XYLENES (µg/L)  
N = NAPHTHALENE (µg/L)  
1,2,4-TMB = 1,2,4-TRIMETHYLBENZENE (µg/L)  
1,3,5-TMB = 1,3,5-TRIMETHYLBENZENE (µg/L)

µg/L = MICROGRAMS PER LITER

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

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

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

GROUNDWATER ANALYTICAL MAP  
(10/20/23)  
ROTH #12-30  
CLOSURE ASSESSMENT  
40.455025 / -104.599906  
NW¼ SW¼ SEC.30 T6N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-13046  
REMEDIAL # 22292

FIGURE NO.  
4

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LEGEND

- INITIAL ASSESSMENT BOUNDARIES
- ⊕ APPROXIMATE MONITORING WELL LOCATIONS

PARAMETERS

SAMPLE LOCATION  
DATE  
C = CHLORIDE (mg/L)  
S = SULFATE (mg/L)  
TDS = TOTAL DISSOLVED SOLIDS (mg/L)

mg/L = MILLIGRAMS PER LITER

NOTE:  
LOCAL BACKGROUND LIMITS HAVE NOT BEEN ESTABLISHED FOR INORGANIC PARAMETERS IN GROUNDWATER AT THIS SITE. THE LOCAL BACKGROUND LIMIT WILL BE 1.25\*BACKGROUND CONCENTRATIONS.

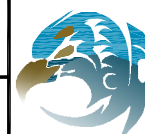
VALUES PRESENTED IN **BOLD** EXCEED THE ECMC TABLE 915-1 REGULATORY LIMITS FOR THAT COMPOUND.

ECMC = ENERGY & CARBON MANAGEMENT COMMISSION

INORGANIC GROUNDWATER PARAMETERS MAP  
(10/20/23)  
ROTH #12-30  
HISTORICAL RELEASE  
40.455025 / -104.599906  
NW¼ SW¼ SEC.30 T6N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-13046  
REMEDATION # 22292

FIGURE NO.  
5

DRAWN BY:  
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LEGEND

- INITIAL ASSESSMENT BOUNDARIES
- APPROXIMATE MONITORING WELL LOCATIONS

PARAMETERS

SAMPLE LOCATION  
DATE SAMPLE COLLECTED  
Ar - Arsenic = (mg/L)  
Ba - Barium = (mg/L)  
Pb - Lead = (mg/L)  
Se - Selenium = (mg/L)

mg/L = MILLIGRAMS PER LITER

NOTES:  
Values presented in BOLD exceed the CDPHE WQCC  
Regulation 41 Domestic Water Supply - Human Health  
Standards

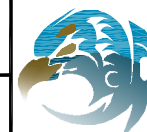
Values presented with a less than symbol (<) did not  
contain concentrations at or above the laboratory reporting  
limit or minimum detection levels

CDPHE WQCC = COLORADO DEPARTMENT OF PUBLIC HEALTH  
AND ENVIRONMENT, WATER QUALITY CONTROL COMMISSION

DISSOLVED METALS ANALYTICAL MAP  
(10/31/23)  
ROTH #12-30  
HISTORICAL RELEASE  
40.455025 / -104.599906  
NW¼ SW¼ SEC.30 T6N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-13046  
REMEDIAL # 22292

FIGURE NO.  
6

DRAWN BY:  
IM



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## **TABLES**

**Table 1: Photoionization Detector Reading Summary**

**Table 2: Soil Analytical Results Summary**

**Table 3: Polycyclic Aromatic Hydrocarbons Analytical Results Summary**

**Table 4: Metals Analytical Results Summary**

**Table 5: Groundwater Analytical Results Summary**

**Table 6: Inorganic Groundwater Parameters Summary**

**Table 7: Dissolved Metals Analytical Results Summary**

**Table 8: Groundwater Elevation Summary**



TABLE 1  
 PHOTOIONIZATION DETECTOR READING SUMMARY  
 ROTH #12-30  
 HISTORICAL RELEASE  
 40.455025 / -104.599906  
 NW1/4 SW1/4 SEC.30 T6N R64W 6PM  
 WELD COUNTY, COLORADO  
 API # 05-123-13046  
 REMEDIATION # 22292

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Lab Submission (Y/N)	Notes
WH-SS-01 @ 5' (40.455049 / -104.599926)	03/30/22	5	115.7	Y	Initial Soil Samples
WH-SS-02 @ 5' (40.455042 / -104.599907)	03/30/22	5	134.5	Y	
WH-SS-03 @ 5' (40.455025 / -104.599928)	03/30/22	5	121.1	Y	
WH-SS-04 @ 5' (40.455037 / -104.599944)	03/30/22	5	114.4	Y	
WH-FS-01 @ 6' (40.455036 / -104.599929)	03/30/22	6	120.1	Y	
Background-01 @ 3' (40.455022 / -104.599889)	03/30/22	3	9.0	Y	Background Comparison
MW-01 @ 5-7.5'	10/06/23	5-7.5	1.8	Y	Subsurface Assessment Soil Samples
MW-02 @ 5-7.5'	10/06/23	5-7.5	1.9	Y	
MW-03 @ 5-7.5'	10/06/23	5-7.5	1.3	Y	
MW-04 @ 5-7.5'	10/06/23	5-7.5	1.3	Y	
MW-05 @ 5-7.5'	10/06/23	5-7.5	1.3	Y	
Background-01 @ 5-7.5	10/06/23	5-7.5	0.3	Y	Background Comparisons
Background-02 @ 5-7.5	10/06/23	5-7.5	0.7	Y	
Background-03 @ 5-7.5	10/06/23	5-7.5	0.8	Y	
Background-04 @ 5-7.5	10/06/23	5-7.5	1.0	Y	
Background-05 @ 5-7.5	10/06/23	5-7.5	0.9	Y	
(Y/N) = Yes or No ppm-v = parts per million by volume PID = Photoionization Detector					

TABLE 2  
SOIL ANALYTICAL RESULTS SUMMARY  
ROTH #12-30  
HISTORICAL RELEASE  
40.455025 / -104.599906  
NW1/4 SW1/4 SEC.30 T6N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-13046  
REMEDATION # 22292

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-RRO (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)	Boron (mg/L)	Specific Conductance (mmhos/cm)	pH (pH units)	SAR
<b>ECMC Table 915-1 Residential Screening Levels (mg/kg)</b>				1.20	490	5.8	58	500			30	27	2	<4	6-8.3	<6
<b>ECMC Table 915-1 Protection of Groundwater Soil Screening Levels</b>				0.0026	0.69	0.78	9.9	--			0.0081	0.0087	--	--	--	--
WH-SS-01 @ 5' (40.455049 / -104.599926)	03/30/22	5	115.7	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	<0.100	0.289	7.90	1.04
WH-SS-02 @ 5' (40.455042 / -104.599907)	03/30/22	5	134.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	55.0	<100	<0.00200	<0.00200	0.393	0.719	7.76	0.980
WH-SS-03 @ 5' (40.455025 / -104.599928)	03/30/22	5	121.1	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	46.6	<100	<0.00200	<0.00200	0.381	0.736	7.78	1.03
WH-SS-04 @ 5' (40.455037 / -104.599944)	03/30/22	5	114.4	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	0.338	0.750	7.88	0.881
WH-FS-01 @ 6' (40.455036 / -104.599929)	03/30/22	6	120.1	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	35.5	<100	<0.00200	<0.00200	0.216	0.867	7.82	1.08
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 SAR = Sodium Adsorption Ratio Note: Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit. Note: Values presented in <b>BOLD</b> contained concentrations exceeding ECMC Table 915-1 Regulatory Limits																



TABLE 3  
POLYCYCLIC AROMATIC HYDROCARBONS ANALYTICAL RESULTS SUMMARY  
ROTH #12-30  
HISTORICAL RELEASE  
40.455025 / -104.599906  
NW1/4 SW1/4 SEC.30 T6N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-13046  
REMEDATION # 22292

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm- v)	1-Methyl- naphthalene (mg/kg)	2-Methyl- naphthalene (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)-anthracene (mg/kg)	Benzo(a)- pyrene (mg/kg)	Benzo(b)- fluoranthene (mg/kg)	Benzo(k)- fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(a,h)- anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(1,2,3- cd)-pyrene (mg/kg)	Naphthalene (mg/kg)	Pyrene (mg/kg)
<b>ECMC Table 915-1 Residential Screening Levels</b>				18	24	360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	2	180
<b>ECMC Table 915-1 Protection of Groundwater Soil Screening Levels</b>				0.006	0.019	0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	0.0038	1.3
WH-SS-01 @ 5' (40.455049 / -104.599926)	03/30/22	5	115.7	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
WH-SS-02 @ 5' (40.455042 / -104.599907)	03/30/22	5	134.5	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	0.00298	<0.00335	<0.00335	<0.00335
WH-SS-03 @ 5' (40.455025 / -104.599928)	03/30/22	5	121.1	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335
WH-SS-04 @ 5' (40.455037 / -104.599944)	03/30/22	5	114.4	0.000766	<0.00067	0.000885	<0.00067	<0.00067	0.000845	0.000796	<0.00067	0.0012	<0.00067	0.000884	0.00209	<0.00067	<0.00067	0.00121
WH-FS-01 @ 6' (40.455036 / -104.599929)	03/30/22	6	120.1	0.000685	<0.00067	<0.00067	<0.00067	<0.00067	0.000591	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.000607	0.000778	<0.00067	<0.00067
ECMC = Energy & Carbon Management Commission mg/kg = milligrams per kilogram				PID = Photoionization Detector ppm-v = parts per million by volume														
Note: Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit.																		
Note: Values presented in <b>BOLD</b> contained concentrations exceeding ECMC Table 915-1 Regulatory Limits																		

TABLE 4  
METALS ANALYTICAL RESULTS SUMMARY  
ROTH #12-30  
HISTORICAL RELEASE  
40.455025 / -104.599906  
NW1/4 SW1/4 SEC.30 T6N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-13046  
REMEDIATION # 22292

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Hexavalent Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
<b>ECMC Table 915-1 Residential Screening Levels</b>			<b>0.68</b>	<b>15,000</b>	<b>71</b>	<b>0.3**</b>	<b>3,100</b>	<b>400</b>	<b>1,500</b>	<b>390</b>	<b>390</b>	<b>23,000</b>
<b>ECMC Table 915-1 Protection of Groundwater Soil Screening Levels</b>			<b>0.29</b>	<b>82</b>	<b>0.38</b>	<b>0.00067**</b>	<b>46</b>	<b>14</b>	<b>26</b>	<b>0.26</b>	<b>0.8</b>	<b>370</b>
<b>Local Clean-up Level</b>			<b>3.99</b>	<b>468</b>	<b>--</b>	<b>0.1 to 1**</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
WH-SS-01 @ 5' (40.455049 / -104.599926)	03/30/22	5	1.39	39.1	0.0452	<0.248**	3.78	4.03	3.42	0.241	0.0085	14.5
WH-SS-02 @ 5' (40.455042 / -104.599907)	03/30/22	5	2.26	85.1*	0.201	<0.488**	11.5	<b>43*</b>	5.72	0.257	0.0279	43.4
WH-SS-03 @ 5' (40.455025 / -104.599928)	03/30/22	5	2.57	92.3*	0.176	<0.488**	11.2	<b>32.5*</b>	5.15	<b>0.328*</b>	0.0267	48
WH-SS-04 @ 5' (40.455037 / -104.599944)	03/30/22	5	1.57	71.2	0.156	<0.244**	7.51	<b>14.1*</b>	4.08	<b>0.29*</b>	0.021	31.2
WH-FS-01 @ 6' (40.455036 / -104.599929)	03/30/22	6	1.30	69.4	0.107	<0.249**	6.38	11.4	4.49	<b>0.34*</b>	0.0222	27.5
Background-01 @ 3' (40.455022 / -104.599889)	03/30/22	3	1.21	31.6	NA	NA	NA	2.64	NA	0.11	NA	NA
MW-01 @ 5-7.5'	10/06/23	5-7.5	3.81	71.4	NA	NA	NA	<8.35	NA	<0.0835	NA	NA
MW-02 @ 5-7.5'	10/06/23	5-7.5	3.59	161*	NA	NA	NA	9.54	NA	<0.0882	NA	NA
MW-03 @ 5-7.5'	10/06/23	5-7.5	2.40	68.1	NA	NA	NA	<9.15	NA	<0.0915	NA	NA
MW-04 @ 5-7.5'	10/06/23	5-7.5	1.46	24.7	NA	NA	NA	<9.03	NA	<0.0903	NA	NA
MW-05 @ 5-7.5'	10/06/23	5-7.5	2.09	30.7	NA	NA	NA	<8.78	NA	<0.0878	NA	NA
Background-01 @ 5-7.5	10/06/23	5-7.5	2.17	133*	NA	NA	NA	<8.87	NA	<0.0887	NA	NA
Background-02 @ 5-7.5	10/06/23	5-7.5	3.19	374*	NA	NA	NA	<9.04	NA	<0.0904	NA	NA
Background-03 @ 5-7.5	10/06/23	5-7.5	2.82	155*	NA	NA	NA	<8.79	NA	<0.0879	NA	NA
Background-04 @ 5-7.5	10/06/23	5-7.5	2.87	126*	NA	NA	NA	<9.33	NA	<0.0933	NA	NA
Background-05 @ 5-7.5	10/06/23	5-7.5	2.42	158*	NA	NA	NA	<8.85	NA	<0.0885	NA	NA

ECMC = Energy & Carbon Management Commission

mg/kg = milligrams per kilogram

NA = Not Analyzed

Notes: Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit or minimum detection levels.

Elevated metals are naturally occurring in Colorado. The Local Clean-up Levels are 1.25\*Background high concentrations, where applicable.

Values presented in **BOLD** contained concentrations exceeding ECMC Table 915-1 Regulatory Limits and applicable Local Clean-up Levels.

Values presented with an asterisk (\*) contained concentrations exceeding ECMC Table 915-1 Protection of Groundwater Soil Screening Levels, only.

\*\*Achievable practical quantitative limits for Hexavalent Chromium in soils is in the range of 0.1 to 1 mg/kg.



TABLE 5  
GROUNDWATER ANALYTICAL RESULTS SUMMARY  
ROTH #12-30  
HISTORICAL RELEASE  
40.455025 / -104.599906  
NW1/4 SW1/4 SEC.30 T6N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-13046  
REMEDATION # 22292

Sample Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- Trimethylbenzene (µg/L)	1,3,5 - Trimethylbenzene (µg/L)
<b>ECMC Table 915-1 Regulatory Limits (µg/L)</b>		<b>5</b>	<b>560</b>	<b>700</b>	<b>1,400</b>	<b>140</b>	<b>67</b>	<b>67</b>
MW-01	10/20/23	<1.00	<1.00	<1.00	<1.00	<2.00	<2.00	<2.00
MW-02	10/20/23	<1.00	<1.00	<1.00	<1.00	<2.00	<2.00	<2.00
MW-03	10/20/23	<1.00	<1.00	<1.00	<1.00	<2.00	<2.00	<2.00
MW-04	10/20/23	<1.00	<1.00	<1.00	<1.00	<2.00	<2.00	<2.00
MW-05	10/20/23	<1.00	<1.00	<1.00	<1.00	<2.00	<2.00	<2.00

NOTES:

ECMC = Energy & Carbon Management Commission

NOP = Not on Plan

DES = Destroyed

µg/L = micrograms per liter

INA = Inaccessible

Values presented with a less than symbol (<) indicate concentrations were not observed at or above the laboratory reporting limit.

Values presented in **bold** typeface exceed their respective ECMC - Regulatory Limits (Table 915-1).

TABLE 6  
INORGANIC GROUNDWATER PARAMETERS SUMMARY  
ROTH #12-30  
HISTORICAL RELEASE  
40.455025 / -104.599906  
NW1/4 SW1/4 SEC.30 T6N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-13046  
REMEDATION # 22292

Sample Location	Date	Chlorides (mg/L)	Sulfates (mg/L)	Total Dissolved Solids (mg/L)
<b>ECMC Table 915-1 Regulatory Limits (mg/L)</b>		<b>250</b>	<b>1.25 x Local Background</b>	<b>1.25 x Local Background</b>
MW-01	10/20/23	70.2	340	784
MW-02	10/20/23	67.8	329	728
MW-03	10/20/23	88.6	399	964
MW-04	10/20/23	63.9	329	804
MW-05	10/20/23	85.6	365	840
Notes: mg/L - milligrams per liter  Local background limits have not been established for inorganic parameters in groundwater at this site. Upgradient well(s) will be used in the determination of a local background level. The local background limit will be 1.25*background concentrations. Values presented in <b>bold</b> typeface exceed their respective ECMC - Regulatory Limits (Table 915-1).				



TABLE 7  
DISSOLVED METALS ANALYTICAL RESULTS SUMMARY  
ROTH #12-30  
HISTORICAL RELEASE  
40.455025 / -104.599906  
NW1/4 SW1/4 SEC.30 T6N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-13046  
REMEDATION # 22292

Sample Location (Latitude/Longitude)	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (Hexavalent) (mg/L)	Copper (mg/L)	Lead (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Zinc (mg/L)
<i>ECMC Table 915-1 Regulatory Limits</i>		--	--	--		--	--	--	--	--	--
<i>CDPHE WQCC Regulation 41 Standards</i>		<b>0.01</b>	<b>2.0</b>	<b>0.005</b>	<b>0.1</b>	<b>1</b>	<b>0.05</b>	<b>0.1</b>	<b>0.05</b>	<b>0.05</b>	<b>5</b>
MW-01	10/31/23	<b>0.0137</b>	0.0423	NA	NA	NA	<0.00011	NA	0.00437	NA	NA
MW-02	10/31/23	0.00664	0.0485	NA	NA	NA	<0.00011	NA	0.00227	NA	NA
MW-03	10/31/23	<b>0.0176</b>	0.0307	NA	NA	NA	<0.00011	NA	0.00246	NA	NA
MW-04	10/31/23	<b>0.0165</b>	0.0454	NA	NA	NA	<0.00011	NA	0.00245	NA	NA
MW-05	10/31/23	0.00565	0.0854	NA	NA	NA	<0.00011	NA	0.00266	NA	NA

ECMC = Energy & Carbon Management Commission

CDPHE WQCC = Colorado Department of Public Health and Environment, Water Quality Control Commission

mg/L = milligrams per liter

NA = Not Analyzed

Notes: Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory reporting limit or minimum detection levels.

Notes: Values presented in **BOLD** exceed the CDPHE WQCC Regulation 41 Domestic Water Supply - Human Health Standards

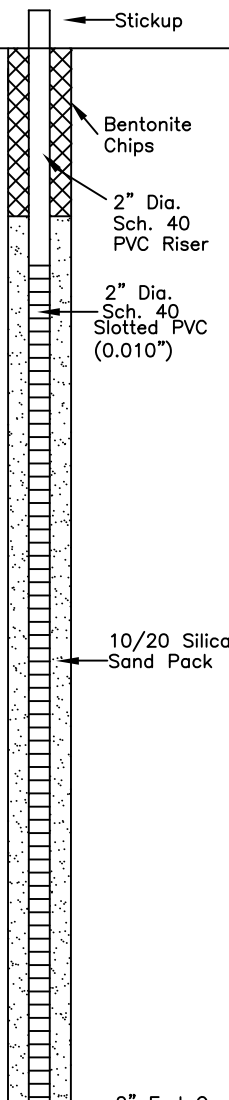
**TABLE 8**  
**GROUNDWATER ELEVATION SUMMARY**  
**ROTH #12-30**  
**HISTORICAL RELEASE**  
**40.455025 / -104.599906**  
**NW1/4 SW1/4 SEC.30 T6N R64W 6PM**  
**WELD COUNTY, COLORADO**  
**API # 05-123-13046**  
**REMEDATION # 22292**

Sample Location	Date	Depth to Groundwater from Top of Casing (feet)
MW-01	10/20/23	21.87
	10/31/23	22.69
MW-02	10/20/23	21.69
	10/31/23	22.49
MW-03	10/20/23	21.47
	10/31/23	22.61
MW-04	10/20/23	21.98
	10/31/23	22.80
MW-05	10/20/23	21.84
	10/31/23	22.68
NOTES:		NOP = Not on Plan
DES = Destroyed		INA = Inaccessible
NM = Not Measured		



## **ATTACHMENT A**

### **Soil Boring Logs / Well Completion Diagrams**

DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-5') Silty SAND - tan, dry, loose, fine to medium grained, moderately graded with 10% silt, small gravel present, N/O, N/S		DP	1	70	1.3	N/A		 <p>Stickup</p> <p>Bentonite Chips</p> <p>2" Dia. Sch. 40 PVC Riser</p> <p>2" Dia. Sch. 40 Slotted PVC (0.010")</p> <p>10/20 Silica Sand Pack</p> <p>2" End Cap</p>	
						1.6				
5	(5-10') Silty SAND - tan, moist, medium grained, moderately graded with 10-20% silt, N/O, N/S		DP	2	70	1.8	N/A			
						1.1				
10	(10-25') SAND - tan, very loose, moist to wet, trace small gravel present, N/O, N/S	SM	DP	3	70	1.3	N/A			
						1.4				
15			DP	4	70	1.2	N/A			
						1.2				
20			DP	5	70	0.9	N/A			
						0.8				
25	BoB @ 25'									HA - Hand Auger DP - Direct Push HC - Hydrocarbon BoB - Bottom of Boring N/O - no odor N/S - no staining TOC - top of casing bgs - below ground surface
30										

START/COMPLETION DATE: 10/06/23

SAND PACK INTERVAL (FEET): 4-20

PROJECT: ROTH #12-30

BENTONITE/GROUT INTERVAL (FEET): 0-4

LOGGED BY: S. LEIVO

WELL SCREEN INTERVAL (FEET): 5-25

DRILLING COMPANY/EQUIPMENT: EAGLE/GEOPROBE

WELL DIAMETER (INCHES): 2

BORING DEPTH (FEET): 25

WELL DEPTH (FEET): 25

PID INSTRUMENT: TIGER - PID

TIME STARTED/COMPLETED: 12:05/12:30

SAMPLE COLLECTION DEPTH (FT.)/TIME: 5-7.5/12:10



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DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-5') Silty SAND - tan, dry, loose, fine to medium grained, moderately graded with 10% silt, small gravel present, N/O, N/S	SM	DP	1	70	1.7	N/A	0		
						1.5				
5	(5-10') Silty SAND - tan, moist, medium grained, moderately graded with 10-20% silt, N/O, N/S		DP	2	70	1.9	N/A	5		
						1.5				
10	(10-25') SAND - tan, very loose, moist to wet, trace small gravel present, N/O, N/S		DP	3	70	1.3	N/A	10		
						1.4				
15						1.3	N/A	15		
						0.9				
20	wet @ ~18'		DP	4	70	0.8	N/A	20		
						1.0				
25	BoB @ 25'							25		
30										

HA - Hand Auger  
 DP - Direct Push  
 HC - Hydrocarbon  
 BoB - Bottom of Boring  
 N/O - no odor  
 N/S - no staining  
 TOC - top of casing  
 bgs - below ground surface

START/COMPLETION DATE: 10/06/23

SAND PACK INTERVAL (FEET): 4-20

PROJECT: ROTH #12-30

BENTONITE/GROUT INTERVAL (FEET): 0-4

LOGGED BY: S. LEIVO

WELL SCREEN INTERVAL (FEET): 5-25

DRILLING COMPANY/EQUIPMENT: EAGLE/GEOPROBE

WELL DIAMETER (INCHES): 2

BORING DEPTH (FEET): 25

WELL DEPTH (FEET): 25

PID INSTRUMENT: TIGER - PID

TIME STARTED/COMPLETED: 12:52/13:25

SAMPLE COLLECTION DEPTH (FT.)/TIME: 5-7.5/13:08



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DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-5') Silty SAND - tan, dry, loose, fine to medium grained, moderately graded with 10% silt, small gravel present, N/O, N/S	SM	DP	1	70	1.2	N/A	0		
						1.2				
5	(5-10') Silty SAND - tan, moist, medium grained, moderately graded with 10-20% silt, N/O, N/S		DP	2	70	1.3	N/A	5		
						0.9				
10	(10-25') SAND - tan, very loose, moist to wet, trace small gravel present, N/O, N/S		DP	3	70	0.8	N/A	10		
						1.1				
15						1.0	N/A	15		
						1.0				
20						0.6	N/A	20		
						0.1				
25	BoB @ 25'							25		
30										

HA - Hand Auger  
 DP - Direct Push  
 HC - Hydrocarbon  
 BoB - Bottom of Boring  
 N/O - no odor  
 N/S - no staining  
 TOC - top of casing  
 bgs - below ground surface

START/COMPLETION DATE: 10/06/23

SAND PACK INTERVAL (FEET): 4-20

PROJECT: ROTH #12-30

BENTONITE/GROUT INTERVAL (FEET): 0-4

LOGGED BY: S. LEIVO

WELL SCREEN INTERVAL (FEET): 5-25

DRILLING COMPANY/EQUIPMENT: EAGLE/GEOPROBE

WELL DIAMETER (INCHES): 2

BORING DEPTH (FEET): 25

WELL DEPTH (FEET): 25

PID INSTRUMENT: TIGER - PID

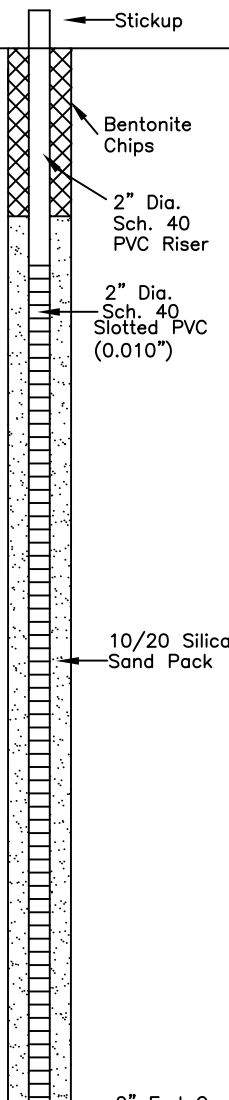
TIME STARTED/COMPLETED: 11:37/12:03

SAMPLE COLLECTION DEPTH (FT.)/TIME: 5-7.5/12:03



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DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-5') Silty SAND - tan, dry, loose, fine to medium grained, moderately graded with 10% silt, small gravel present, N/O, N/S	SM	DP	1	70	1.2	N/A	0		
						1.2				
5	(5-10') Silty SAND - tan, moist, medium grained, moderately graded with 10-20% silt, N/O, N/S		DP	2	70	1.3	N/A	5		
						0.9				
10	(10-25') SAND - tan, very loose, moist to wet, trace small gravel present, N/O, N/S		DP	3	70	0.8	N/A	10		
						1.1				
15						1.0	N/A	15		
						1.0				
20						0.6	N/A	20		
						0.1				
25	BoB @ 25'							25		
30										

HA - Hand Auger  
 DP - Direct Push  
 HC - Hydrocarbon  
 BoB - Bottom of Boring  
 N/O - no odor  
 N/S - no staining  
 TOC - top of casing  
 bgs - below ground surface

START/COMPLETION DATE: 10/06/23

SAND PACK INTERVAL (FEET): 4-20

PROJECT: ROTH #12-30

BENTONITE/GROUT INTERVAL (FEET): 0-4

LOGGED BY: S. LEIVO

WELL SCREEN INTERVAL (FEET): 5-25

DRILLING COMPANY/EQUIPMENT: EAGLE/GEOPROBE

WELL DIAMETER (INCHES): 2

BORING DEPTH (FEET): 25

WELL DEPTH (FEET): 25

PID INSTRUMENT: TIGER - PID

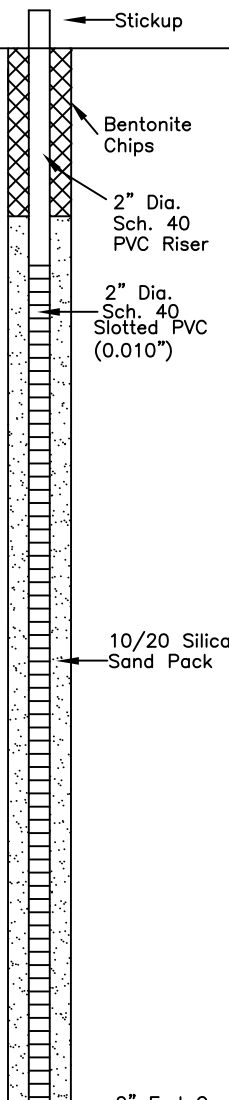
TIME STARTED/COMPLETED: 11:37/12:03

SAMPLE COLLECTION DEPTH (FT.)/TIME: 5-7.5/12:03



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DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-5') Silty SAND - tan, dry, loose, fine to medium grained, moderately graded with 10% silt, small gravel present, N/O, N/S	SM	DP	1	70	2.2	N/A	0		
						1.2				
5	(5-10') Silty SAND - tan, moist, medium grained, moderately graded with 10-20% silt, N/O, N/S		DP	2	70	1.3	N/A	5		
						1.2				
10	(10-25') SAND - tan, very loose, moist to wet, trace small gravel present, N/O, N/S		DP	3	70	1.1	N/A	10		
						1.1				
15						0.8	N/A	15		
						0.8				
20	wet @ ~18'		DP	4	70	0.5	N/A	20		
						0.8				
25	BoB @ 25'		DP	5	70			25		
30										

HA - Hand Auger  
 DP - Direct Push  
 HC - Hydrocarbon  
 BoB - Bottom of Boring  
 N/O - no odor  
 N/S - no staining  
 TOC - top of casing  
 bgs - below ground surface

START/COMPLETION DATE: 10/06/23

SAND PACK INTERVAL (FEET): 4-20

PROJECT: ROTH #12-30

BENTONITE/GROUT INTERVAL (FEET): 0-4

LOGGED BY: S. LEIVO

WELL SCREEN INTERVAL (FEET): 5-25

DRILLING COMPANY/EQUIPMENT: EAGLE/GEOPROBE

WELL DIAMETER (INCHES): 2

BORING DEPTH (FEET): 25

WELL DEPTH (FEET): 25

PID INSTRUMENT: TIGER - PID

TIME STARTED/COMPLETED: 1015/1045

SAMPLE COLLECTION DEPTH (FT.)/TIME: 5-7.5/1022



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DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-5') Silty SAND - tan, dry, loose, fine to medium grained, moderately graded with 10% silt, small gravel present, N/O, N/S	SM	DP		70	0.2	N/A			
						0.5				
5	(5-7.5') Silty SAND - tan, moist, medium grained, moderately graded with 10-20% silt, N/O, N/S		DP		70	0.3	N/A	5		
	BoB @ 7.5'									
10								10		
15								15		
20								20		
25								25		
30										

HA - Hand Auger  
 DP - Direct Push  
 HC - Hydrocarbon  
 BoB - Bottom of Boring  
 N/O - no odor  
 N/S - no staining  
 TOC - top of casing  
 bgs - below ground surface

START/COMPLETION DATE: 10/06/23

SAND PACK INTERVAL (FEET): NA

PROJECT: ROTH #12-30

BENTONITE/GROUT INTERVAL (FEET): NA

LOGGED BY: S. LEIVO

WELL SCREEN INTERVAL (FEET): NA

DRILLING COMPANY/EQUIPMENT: EAGLE/GEOPROBE

WELL DIAMETER (INCHES): NA

BORING DEPTH (FEET): 7.5

WELL DEPTH (FEET): NA

PID INSTRUMENT: TIGER - PID

TIME STARTED/COMPLETED: 13:40/14:00

SAMPLE COLLECTION DEPTH (FT.)/TIME: 5-7.5/13:50



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DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-5') Silty SAND - tan, dry, loose, fine to medium grained, moderately graded with 10% silt, small gravel present, N/O, N/S	SM	DP	70	70	0.4	N/A			
						0.7				
5	(5-7.5') Silty SAND - tan, moist, medium grained, moderately graded with 10-20% silt, N/O, N/S		DP	70	70	0.7	N/A	5		
	BoB @ 7.5'									
10								10		
15								15		
20								20		
25								25		
30										

HA - Hand Auger  
 DP - Direct Push  
 HC - Hydrocarbon  
 BoB - Bottom of Boring  
 N/O - no odor  
 N/S - no staining  
 TOC - top of casing  
 bgs - below ground surface

START/COMPLETION DATE: 10/06/23

SAND PACK INTERVAL (FEET): NA

PROJECT: ROTH #12-30

BENTONITE/GROUT INTERVAL (FEET): NA

LOGGED BY: S. LEIVO

WELL SCREEN INTERVAL (FEET): NA

DRILLING COMPANY/EQUIPMENT: EAGLE/GEOPROBE

WELL DIAMETER (INCHES): NA

BORING DEPTH (FEET): 7.5

WELL DEPTH (FEET): NA

PID INSTRUMENT: TIGER - PID

TIME STARTED/COMPLETED: 13:52/14:00

SAMPLE COLLECTION DEPTH (FT.)/TIME: 5-7.5/14:00



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DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-5') Silty SAND - tan, dry, loose, fine to medium grained, moderately graded with 10% silt, small gravel present, N/O, N/S	SM	DP	70	70	0.3	N/A			
						0.1				
5	(5-7.5') Silty SAND - tan, moist, medium grained, moderately graded with 10-20% silt, N/O, N/S		DP	70	70	0.8	N/A	5		
	BoB @ 7.5'									
10								10		
15								15		
20								20		
25								25		
30										

HA - Hand Auger  
 DP - Direct Push  
 HC - Hydrocarbon  
 BoB - Bottom of Boring  
 N/O - no odor  
 N/S - no staining  
 TOC - top of casing  
 bgs - below ground surface

START/COMPLETION DATE: 10/06/23

SAND PACK INTERVAL (FEET): NA

PROJECT: ROTH #12-30

BENTONITE/GROUT INTERVAL (FEET): NA

LOGGED BY: S. LEIVO

WELL SCREEN INTERVAL (FEET): NA

DRILLING COMPANY/EQUIPMENT: EAGLE/GEOPROBE

WELL DIAMETER (INCHES): NA

BORING DEPTH (FEET): 7.5

WELL DEPTH (FEET): NA

PID INSTRUMENT: TIGER - PID

TIME STARTED/COMPLETED: 14:02/14:10

SAMPLE COLLECTION DEPTH (FT.)/TIME: 5-7.5/14:10



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 ENVIRONMENTAL  
 CONSULTING, LLC

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DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-5') Silty SAND - tan, dry, loose, fine to medium grained, moderately graded with 10% silt, small gravel present, N/O, N/S	SM	DP	70	70	0.5	N/A			
						0.3				
5	(5-7.5') Silty SAND - tan, moist, medium grained, moderately graded with 10-20% silt, N/O, N/S		DP	70	70	1.0	N/A	5		
10	BoB @ 7.5'							10		
15								15		
20								20		
25								25		
30										

HA - Hand Auger  
DP - Direct Push  
HC - Hydrocarbon  
BoB - Bottom of Boring  
N/O - no odor  
N/S - no staining  
TOC - top of casing  
bgs - below ground surface

START/COMPLETION DATE: 10/06/23

SAND PACK INTERVAL (FEET): NA

PROJECT: ROTH #12-30

BENTONITE/GROUT INTERVAL (FEET): NA

LOGGED BY: S. LEIVO

WELL SCREEN INTERVAL (FEET): NA

DRILLING COMPANY/EQUIPMENT: EAGLE/GEOPROBE

WELL DIAMETER (INCHES): NA

BORING DEPTH (FEET): 7.5

WELL DEPTH (FEET): NA

PID INSTRUMENT: TIGER - PID

TIME STARTED/COMPLETED: 14:10/14:18

SAMPLE COLLECTION DEPTH (FT.)/TIME: 5-7.5/14:18



**EAGLE**  
ENVIRONMENTAL  
CONSULTING, LLC

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



DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-5') Silty SAND - tan, dry, loose, fine to medium grained, moderately graded with 10% silt, small gravel present, N/O, N/S	SM	DP	70	70	0.3	N/A			
						0.1				
5	(5-7.5') Silty SAND - tan, moist, medium grained, moderately graded with 10-20% silt, N/O, N/S		DP	70	70	0.8	N/A	5		
	BoB @ 7.5'									
10								10		
15								15		
20								20		
25								25		
30										

HA - Hand Auger  
 DP - Direct Push  
 HC - Hydrocarbon  
 BoB - Bottom of Boring  
 N/O - no odor  
 N/S - no staining  
 TOC - top of casing  
 bgs - below ground surface

START/COMPLETION DATE: 10/06/23

SAND PACK INTERVAL (FEET): NA

PROJECT: ROTH #12-30

BENTONITE/GROUT INTERVAL (FEET): NA

LOGGED BY: S. LEIVO

WELL SCREEN INTERVAL (FEET): NA

DRILLING COMPANY/EQUIPMENT: EAGLE/GEOPROBE

WELL DIAMETER (INCHES): NA

BORING DEPTH (FEET): 7.5

WELL DEPTH (FEET): NA

PID INSTRUMENT: TIGER - PID

TIME STARTED/COMPLETED: 14:19/14:25

SAMPLE COLLECTION DEPTH (FT.)/TIME: 5-7.5/14:25



**EAGLE**  
 ENVIRONMENTAL  
 CONSULTING, LLC

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



## **ATTACHMENT B**

### **Laboratory Analytical Reports**



October 23, 2023

Eagle Environmental Consulting, LLC

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Roth #12-30

Project Number - [none]

Attached are your analytical results for Noble - Roth #12-30 received by Origins Laboratory, Inc. October 06, 2023. This project is associated with Origins project number Y310250-01.

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Background-01@5-7.5'	Y310250-01	Soil	October 6, 2023 13:50	10/06/2023 16:20
Background-02@5-7.5'	Y310250-02	Soil	October 6, 2023 14:00	10/06/2023 16:20
Background-03@5-7.5'	Y310250-03	Soil	October 6, 2023 14:10	10/06/2023 16:20
Background-04@5-7.5'	Y310250-04	Soil	October 6, 2023 14:18	10/06/2023 16:20
Background-05@5-7.5'	Y310250-05	Soil	October 6, 2023 14:25	10/06/2023 16:20

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

www.originslaboratory.com

page 1 of 1

4310250

Project Manager: Martin Eckert III  
Project Name: Roth #12-30  
Project Number: —  
Samples Collected By: SL/IM

Client: Eagle Environmental Consulting  
Address: 8000 W 44th Ave  
Wheat Ridge, CO 80033  
Telephone Number: 303-433-0479  
Email Address: Mike.30@eagle-enviro.com

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix		Analysis	Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil			Air Summa #
Background-01 05-75'	10/6/23	1350	2	X				X		X	X	At 1400s needed 1
Background-02 05-75'		1400	1									2
Background-03 05-75'		1410										3
Background-04 05-75'		1416										4
Background-05 05-75'		1425										5
												6
												7
												8
												9
												10

Relinquished By: [Signature] Date: 10/06/23 Time: 1120  
Relinquished By: [Signature] Date: 10/06/23 Time: 1020

Received By: [Signature] Date: 10/06/23 Time: 1020  
Received By: [Signature] Date: 10/06/23 Time: 1020

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

Temp Received: 2 Date Results Needed: Noble

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

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

Origins Laboratory

## Sample Receipt Checklist

F-012207-01-R1

Effective Date: 01/09/12

Origins Work Order: 431 02 50

Client: Eagle

Client Project ID: Roth #12-30

Checklist Completed by: EHS

Shipped Via: HD

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

Date/time completed: 10/6/23

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 2 °C    °C    °C (Describe)    °C

Thermometer ID: 1004

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

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

Reviewed by (Project Manager) JB

Date/Time Reviewed 10-10-23

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

## Background-01@5-7.5'

10/6/2023 1:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

## Origins Laboratory, Inc. Y310250-01 (Soil)

### Table 915 metals by EPA 6020B

Arsenic	2.17	0.0887	mg/kg	10	B3J0922	CIH	10/09/2023	10/12/2023
Barium	133	8.87	"	"	"	CIH	"	"
Lead	ND	8.87	"	"	"	CIH	"	"
Selenium	ND	0.0887	"	"	"	CIH	"	"

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

**Background-02@5-7.5'**

**10/6/2023 2:00:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	---------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y310250-02 (Soil)**

**Table 915 metals by EPA 6020B**

Arsenic	3.19	0.0904	mg/kg	10	B3J0922	CIH	10/09/2023	10/12/2023
Barium	374	9.04	"	"	"	CIH	"	"
Lead	ND	9.04	"	"	"	CIH	"	"
Selenium	ND	0.0904	"	"	"	CIH	"	"

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

## Background-03@5-7.5'

10/6/2023 2:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	---------	----------	----------	-------

## Origins Laboratory, Inc. Y310250-03 (Soil)

### Table 915 metals by EPA 6020B

Arsenic	2.82	0.0879	mg/kg	10	B3J0922	CIH	10/09/2023	10/12/2023
Barium	155	8.79	"	"	"	CIH	"	"
Lead	ND	8.79	"	"	"	CIH	"	"
Selenium	ND	0.0879	"	"	"	CIH	"	"

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

**Background-04@5-7.5'**

**10/6/2023 2:18:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	---------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y310250-04 (Soil)**

**Table 915 metals by EPA 6020B**

Arsenic	2.87	0.0933	mg/kg	10	B3J0922	CIH	10/09/2023	10/12/2023
Barium	126	9.33	"	"	"	CIH	"	"
Lead	ND	9.33	"	"	"	CIH	"	"
Selenium	ND	0.0933	"	"	"	CIH	"	"

Origins Laboratory, Inc.



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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

**Background-05@5-7.5'**

**10/6/2023 2:25:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	---------	----------	----------	-------

**Origins Laboratory, Inc.**  
**Y310250-05 (Soil)**

**Table 915 metals by EPA 6020B**

Arsenic	2.42	0.0885	mg/kg	10	B3J0922	CIH	10/09/2023	10/12/2023
Barium	158	8.85	"	"	"	CIH	"	"
Lead	ND	8.85	"	"	"	CIH	"	"
Selenium	ND	0.0885	"	"	"	CIH	"	"

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

**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 B3J0922 - EPA 3050B**

**Blank (B3J0922-BLK1)**

Prepared: 10/09/2023 Analyzed: 10/12/2023

Arsenic	ND	0.000100	mg/kg
Barium	ND	0.0100	"
Cadmium	ND	0.000100	"
Copper	ND	0.0100	"
Lead	ND	0.0100	"
Nickel	ND	0.0100	"
Selenium	ND	0.000100	"
Silver	ND	0.000100	"
Zinc	ND	0.100	"

**LCS (B3J0922-BS1)**

Prepared: 10/09/2023 Analyzed: 10/12/2023

Arsenic	0.0485	0.000100	mg/kg	0.0500	96.9	80-120
Barium	5.07	0.0100	"	5.00	101	80-120
Cadmium	0.0510	0.000100	"	0.0500	102	80-120
Copper	0.551	0.0100	"	0.500	110	80-120
Lead	0.0501	0.0100	"	0.0500	100	80-120
Nickel	0.0488	0.0100	"	0.0500	97.6	80-120
Selenium	0.0466	0.000100	"	0.0500	93.3	80-120
Silver	0.0534	0.000100	"	0.0500	107	80-120
Zinc	0.531	0.100	"	0.500	106	80-120

**Matrix Spike (B3J0922-MS1)**

**Source: Y310250-01**

Prepared: 10/09/2023 Analyzed: 10/12/2023

Arsenic	8.70	0.0960	mg/kg	4.80	2.17	136	75-125	QM-07
Barium	732	9.60	"	480	133	125	75-125	
Cadmium	5.99	0.0960	"	4.80	0.152	122	75-125	
Copper	60.6	9.60	"	48.0	4.24	117	75-125	
Lead	13.1	9.60	"	4.80	6.77	131	75-125	QM-07

Origins Laboratory, Inc.



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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

## 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
<b>Batch B3J0922 - EPA 3050B</b>										
<b>Matrix Spike (B3J0922-MS1)</b>		<b>Source: Y310250-01</b>			Prepared: 10/09/2023 Analyzed: 10/12/2023					
Nickel	11.7	9.60	mg/kg	4.80	5.70	125	75-125			
Selenium	4.41	0.0960	"	4.80	ND	91.8	75-125			
Silver	5.91	0.0960	"	4.80	0.0168	123	75-125			
Zinc	95.3	96.0	"	48.0	29.9	136	75-125			QM-07
<b>Matrix Spike Dup (B3J0922-MSD1)</b>		<b>Source: Y310250-01</b>			Prepared: 10/09/2023 Analyzed: 10/12/2023					
Arsenic	7.55	0.0927	mg/kg	4.64	2.17	116	75-125	14.2	20	
Barium	656	9.27	"	464	133	113	75-125	10.9	20	
Cadmium	5.49	0.0927	"	4.64	0.152	115	75-125	8.67	20	
Copper	54.4	9.27	"	46.4	4.24	108	75-125	10.7	20	
Lead	12.3	9.27	"	4.64	6.77	120	75-125	5.99	20	
Nickel	11.4	9.27	"	4.64	5.70	123	75-125	2.97	20	
Selenium	4.58	0.0927	"	4.64	ND	98.8	75-125	3.76	20	
Silver	5.46	0.0927	"	4.64	0.0168	117	75-125	8.01	20	
Zinc	87.4	92.7	"	46.4	29.9	124	75-125	8.63	20	

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

Martin C Eckert III

Project Number: [none]

Project: Noble - Roth #12-30

### Notes and Definitions

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 at a wet weight basis.

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.*



October 23, 2023

Eagle Environmental Consulting, LLC

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Roth #12-30

Project Number - [none]

Attached are your analytical results for Noble - Roth #12-30 received by Origins Laboratory, Inc. October 06, 2023. This project is associated with Origins project number Y310251-01.

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-01@5'-7.5'	Y310251-01	Soil	October 6, 2023 12:10	10/06/2023 16:20
MW-02@5'-7.5'	Y310251-02	Soil	October 6, 2023 13:08	10/06/2023 16:20
MW-03@5'-7.5'	Y310251-03	Soil	October 6, 2023 11:45	10/06/2023 16:20
MW-04@5'-7.5'	Y310251-04	Soil	October 6, 2023 11:19	10/06/2023 16:20
MW-05@5'-7.5'	Y310251-05	Soil	October 6, 2023 10:22	10/06/2023 16:20

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.*



Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

# ORIGINS

LABORATORY, INC

www.originslaboratory.com

10/23/13

page 1 of 1

Client: Google Environmental Consulting

Address: 3000 W 4th Ave

14401 Ridge Dr, 80033

303-433-0474

Telephone Number:

Email Address: MUE3@google.com

Project Manager: Maria Falcup

Project Name: DATA #12-30

Project Number: ~~~~~

Samples Collected By: SV/TM

Fax: 303.265.9645

Phone: 303.433.1322

Denver, CO 80211

1725 Elk Place

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions		
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa #			Other	
MU-01 @ 5'-7.5'	10/10/13	1210	2	X				X			X	X	MDX Method	1
MU-02 @ 5'-7.5'		1308	1											2
MU-03 @ 5'-7.5'		1145	1											3
MU-04 @ 5'-7.5'		1119	1											4
MU-05 @ 5'-7.5'		1022	1											5
														6
														7
														8
														9
														10
Relinquished By: <u>Sam Jule</u>	Date: <u>10/10/13</u>	Time: <u>1620</u>	Received By: <u>WJ</u>	Date: <u>10/10/13</u>	Time: <u>1620</u>	Turnaround Time: <input type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input checked="" type="checkbox"/> Standard								
Relinquished By:	Date:	Time:	Received By:	Date:	Time:									

\* Bill to Dan

Temp Received: 2

Date Results Needed: 10/10/13

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: 4310251

Client: Eagle

Client Project ID: Roth #12-30

Checklist Completed by: EHS

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

Date/time completed: 10/10/23

Airbill #: N/A

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

Cooler Number/Temperature: 112 °C 1 °C 1 °C

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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input 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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH >10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

Reviewed by: JB (Project Manager)

Date/Time Reviewed: 10-10-23

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

MW-01@5'-7.5'  
10/6/2023 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y310251-01 (Soil)

## Table 915 metals by EPA 6020B

Arsenic	3.81	0.0835	mg/kg	10	B3J0922	CIH	10/09/2023	10/12/2023
Barium	71.4	8.35	"	"	"	CIH	"	"
Lead	ND	8.35	"	"	"	CIH	"	"
Selenium	ND	0.0835	"	"	"	CIH	"	"

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

MW-02@5'-7.5'  
10/6/2023 1:08:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y310251-02 (Soil)

## Table 915 metals by EPA 6020B

Arsenic	3.59	0.0882	mg/kg	10	B3J0922	CIH	10/09/2023	10/12/2023
Barium	161	8.82	"	"	"	CIH	"	"
Lead	9.54	8.82	"	"	"	CIH	"	"
Selenium	ND	0.0882	"	"	"	CIH	"	"

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

MW-03@5'-7.5'  
10/6/2023 11:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y310251-03 (Soil)

## Table 915 metals by EPA 6020B

Arsenic	2.40	0.0915	mg/kg	10	B3J0922	CIH	10/09/2023	10/12/2023
Barium	68.1	9.15	"	"	"	CIH	"	"
Lead	ND	9.15	"	"	"	CIH	"	"
Selenium	ND	0.0915	"	"	"	CIH	"	"

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

**MW-04@5'-7.5'**  
**10/6/2023 11:19:00AM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y310251-04 (Soil)**

## Table 915 metals by EPA 6020B

Arsenic	1.46	0.0903	mg/kg	10	B3J0922	CIH	10/09/2023	10/12/2023
Barium	24.7	9.03	"	"	"	CIH	"	"
Lead	ND	9.03	"	"	"	CIH	"	"
Selenium	ND	0.0903	"	"	"	CIH	"	"

Origins Laboratory, Inc.



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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

MW-05@5'-7.5'

10/6/2023 10:22:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y310251-05 (Soil)

## Table 915 metals by EPA 6020B

Arsenic	2.09	0.0878	mg/kg	10	B3J0922	CIH	10/09/2023	10/12/2023
Barium	30.7	8.78	"	"	"	CIH	"	"
Lead	ND	8.78	"	"	"	CIH	"	"
Selenium	ND	0.0878	"	"	"	CIH	"	"

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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

**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 B3J0922 - EPA 3050B**

**Blank (B3J0922-BLK1)**

Prepared: 10/09/2023 Analyzed: 10/12/2023

Arsenic	ND	0.000100	mg/kg
Barium	ND	0.0100	"
Cadmium	ND	0.000100	"
Copper	ND	0.0100	"
Lead	ND	0.0100	"
Nickel	ND	0.0100	"
Selenium	ND	0.000100	"
Silver	ND	0.000100	"
Zinc	ND	0.100	"

**LCS (B3J0922-BS1)**

Prepared: 10/09/2023 Analyzed: 10/12/2023

Arsenic	0.0485	0.000100	mg/kg	0.0500	96.9	80-120
Barium	5.07	0.0100	"	5.00	101	80-120
Cadmium	0.0510	0.000100	"	0.0500	102	80-120
Copper	0.551	0.0100	"	0.500	110	80-120
Lead	0.0501	0.0100	"	0.0500	100	80-120
Nickel	0.0488	0.0100	"	0.0500	97.6	80-120
Selenium	0.0466	0.000100	"	0.0500	93.3	80-120
Silver	0.0534	0.000100	"	0.0500	107	80-120
Zinc	0.531	0.100	"	0.500	106	80-120

**Matrix Spike (B3J0922-MS1)**

**Source: Y310250-01**

Prepared: 10/09/2023 Analyzed: 10/12/2023

Arsenic	8.70	0.0960	mg/kg	4.80	2.17	136	75-125	QM-07
Barium	732	9.60	"	480	133	125	75-125	
Cadmium	5.99	0.0960	"	4.80	0.152	122	75-125	
Copper	60.6	9.60	"	48.0	4.24	117	75-125	
Lead	13.1	9.60	"	4.80	6.77	131	75-125	QM-07

Origins Laboratory, Inc.



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

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Roth #12-30

## 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
<b>Batch B3J0922 - EPA 3050B</b>										
<b>Matrix Spike (B3J0922-MS1)</b>		<b>Source: Y310250-01</b>			Prepared: 10/09/2023 Analyzed: 10/12/2023					
Nickel	11.7	9.60	mg/kg	4.80	5.70	125	75-125			
Selenium	4.41	0.0960	"	4.80	ND	91.8	75-125			
Silver	5.91	0.0960	"	4.80	0.0168	123	75-125			
Zinc	95.3	96.0	"	48.0	29.9	136	75-125			QM-07
<b>Matrix Spike Dup (B3J0922-MSD1)</b>		<b>Source: Y310250-01</b>			Prepared: 10/09/2023 Analyzed: 10/12/2023					
Arsenic	7.55	0.0927	mg/kg	4.64	2.17	116	75-125	14.2	20	
Barium	656	9.27	"	464	133	113	75-125	10.9	20	
Cadmium	5.49	0.0927	"	4.64	0.152	115	75-125	8.67	20	
Copper	54.4	9.27	"	46.4	4.24	108	75-125	10.7	20	
Lead	12.3	9.27	"	4.64	6.77	120	75-125	5.99	20	
Nickel	11.4	9.27	"	4.64	5.70	123	75-125	2.97	20	
Selenium	4.58	0.0927	"	4.64	ND	98.8	75-125	3.76	20	
Silver	5.46	0.0927	"	4.64	0.0168	117	75-125	8.01	20	
Zinc	87.4	92.7	"	46.4	29.9	124	75-125	8.63	20	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, LLC

8000 W 44th Ave

Wheat Ridge CO 80033

Martin C Eckert III

Project Number: [none]

Project: Noble - Roth #12-30

### Notes and Definitions

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 at a wet weight basis.

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.*



November 07, 2023

Eagle Environmental Consulting, LLC

Andrew Newberry

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Roth #12-30

Project Number - [none]

Attached are your analytical results for Noble - Roth #12-30 received by Origins Laboratory, Inc. October 20, 2023. This project is associated with Origins project number Y310595-01.

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 - Roth #12-30

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-01	Y310595-01	Water	October 20, 2023 12:05	10/20/2023 14:55
MW-02	Y310595-02	Water	October 20, 2023 12:15	10/20/2023 14:55
MW-03	Y310595-03	Water	October 20, 2023 12:25	10/20/2023 14:55
MW-04	Y310595-04	Water	October 20, 2023 12:35	10/20/2023 14:55
MW-05	Y310595-05	Water	October 20, 2023 12:45	10/20/2023 14:55

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 - Roth #12-30

www.originslaboratory.com

page 1 of 1

43105qs

ORIGINS LABORATORY, INC

Client: Eagle Environmental Consulting Project Manager: Andrew Newberry  
Address: 8000 W. 44th Ave. Project Name: Roth #12-30  
Telephone Number: 303-433-0474 Project Number: BU  
Email Address: andrewnewberry@eagle-environment.com Samples Collected By: BU

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa Canister #			
MW-01	10-20-23	12:05	1	X				X			X	TD5-2540C	1
MW-02		12:15	1								X	Chloride - EPA 800.0	2
MW-03		12:25	1										3
MW-04		12:35	1										4
MW-05		12:45	1										5
													6
													7
													8
													9
													10

Relinquished By: Blake Ulrich Date: 10-20-23 Time: 4:55  
Relinquished By: Date: Time: 10/20/23 14:55

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

Temp Received: 9 Date Results Needed: 11/01/24

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 - Roth #12-30

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: 4310595 Client: Eagle  
Client Project ID: Roth #12-30

Checklist Completed by: SHS Shipped Via: HD  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)  
Date/time completed: 10/20/23 Airbill #: N/A

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

Cooler Number/Temperature: 1 / 9 °C / °C / °C (Describe) °C

Thermometer ID: 1004

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

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

Reviewed by (Project Manager): [Signature] Date/Time Reviewed: 10/24/23

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 - Roth #12-30

MW-01

10/20/2023 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y310595-01 (Water)

Anions by IC 300.0

Chloride	70.2	31.2	mg/L	125	B3J3031	ACC	10/30/2023	11/03/2023	
Sulfate	340	31.2	"	"	"	ACC	"	"	

Total Dissolved Solids by 2540C

Total Dissolved Solids	784	5.00	"	1	B3J2522	KRM	10/25/2023	10/26/2023	
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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 - Roth #12-30

## MW-02

10/20/2023 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	---------	----------	----------	-------

## Origins Laboratory, Inc. Y310595-02 (Water)

### Anions by IC 300.0

Chloride	67.8	31.2	mg/L	125	B3J3031	ACC	10/30/2023	11/03/2023	
Sulfate	329	31.2	"	"	"	ACC	"	"	

### Total Dissolved Solids by 2540C

Total Dissolved Solids	728	5.00	"	1	B3J2522	KRM	10/25/2023	10/26/2023	
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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 - Roth #12-30

MW-03

10/20/2023 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.  
Y310595-03 (Water)

Anions by IC 300.0

Chloride	88.6	31.2	mg/L	125	B3J3031	ACC	10/30/2023	11/03/2023	
Sulfate	399	31.2	"	"	"	ACC	"	"	

Total Dissolved Solids by 2540C

Total Dissolved Solids	964	5.00	"	1	B3J2522	KRM	10/25/2023	10/26/2023	
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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 - Roth #12-30

MW-04

10/20/2023 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y310595-04 (Water)

Anions by IC 300.0

Chloride	63.9	31.2	mg/L	125	B3J3031	ACC	10/30/2023	11/03/2023	
Sulfate	329	31.2	"	"	"	ACC	"	"	

Total Dissolved Solids by 2540C

Total Dissolved Solids	804	5.00	"	1	B3J2522	KRM	10/25/2023	10/26/2023	
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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 - Roth #12-30

MW-05

10/20/2023 12:45:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
		Limit								

Origins Laboratory, Inc.  
Y310595-05 (Water)

Anions by IC 300.0

Chloride	85.6	31.2	mg/L	125	B3J3031	ACC	10/30/2023	11/03/2023
Sulfate	365	31.2	"	"	"	ACC	"	"

Total Dissolved Solids by 2540C

Total Dissolved Solids	840	5.00	"	1	B3J2522	KRM	10/25/2023	10/26/2023
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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 - Roth #12-30

## 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 B3J2522 - NO PREP</b>										
<b>Blank (B3J2522-BLK1)</b>					Prepared: 10/25/2023 Analyzed: 10/26/2023					
Total Dissolved Solids	ND	5.00	mg/L							
<b>LCS (B3J2522-BS1)</b>					Prepared: 10/25/2023 Analyzed: 10/26/2023					
Total Dissolved Solids	1070	5.00	mg/L	1070		99.6	90-110			
<b>Duplicate (B3J2522-DUP1)</b>					Source: Y310554-07 Prepared: 10/25/2023 Analyzed: 10/26/2023					
Total Dissolved Solids	424	5.00	mg/L		442			4.16	10	
<b>Batch B3J3031 - Filter .45um non acidified</b>										
<b>Blank (B3J3031-BLK1)</b>					Prepared: 10/30/2023 Analyzed: 11/03/2023					
Chloride	ND	0.250	mg/L							U
Sulfate	ND	0.250	"							U
<b>LCS (B3J3031-BS1)</b>					Prepared: 10/30/2023 Analyzed: 11/06/2023					
Chloride	3.73	0.250	mg/L	4.00		93.2	90-110			
Sulfate	3.66	0.250	"	4.00		91.5	90-110			
<b>Matrix Spike (B3J3031-MS1)</b>					Source: Y310564-01 Prepared: 10/30/2023 Analyzed: 11/03/2023					
Chloride	735		mg/L	500	228	101	90-110			
Sulfate	762		"	500	249	103	90-110			
<b>Matrix Spike Dup (B3J3031-MSD1)</b>					Source: Y310564-01 Prepared: 10/30/2023 Analyzed: 11/03/2023					
Chloride	747		mg/L	500	228	104	90-110	1.69	5	
Sulfate	758		"	500	249	102	90-110	0.541	5	

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 - Roth #12-30

### Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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.*



October 30, 2023

Eagle Environmental Consulting, LLC

Andrew Newberry

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Roth #12-30

Project Number - [none]

Attached are your analytical results for Noble - Roth #12-30 received by Origins Laboratory, Inc. October 20, 2023. This project is associated with Origins project number Y310597-01.

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 - Roth #12-30

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-01	Y310597-01	Water	October 20, 2023 12:05	10/20/2023 14:55
MW-02	Y310597-02	Water	October 20, 2023 12:15	10/20/2023 14:55
MW-03	Y310597-03	Water	October 20, 2023 12:25	10/20/2023 14:55
MW-04	Y310597-04	Water	October 20, 2023 12:35	10/20/2023 14:55
MW-05	Y310597-05	Water	October 20, 2023 12:45	10/20/2023 14:55

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 - Roth #12-30

www.originslaboratory.com

U310597

page 1 of 1

**ORIGINS**  
LABORATORY, INC

Client: Eagle Environmental Consulting  
Address: 8000 W. 44th Ave.  
Wheat Ridge, CO 80033  
Telephone Number: 303-433-0479  
Email Address: anewberry@eagle-environment.com

Project Manager: Andrew Newberry  
Project Name: Roth #12-30  
Project Number: —  
Samples Collected By: BA

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa Canister #			Other
MW-01	10-20-23	1205	3	X				X					1
MW-02		1215											2
MW-03		1225											3
MW-04		1235											4
MW-05		1245											5
													6
													7
													8
													9
													10

Relinquished By: Blythe Ulrich Date: 10-20-23 Time: 1455  
Relinquished By: — Date: — Time: —

Received By: — Date: 10/20/23 Time: 1455  
Received By: — Date: — Time: —

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

Date Results Needed Noble

Temp Received- 9

Bill to Don

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 - Roth #12-30

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 4310597

Client: Eagle

Client Project ID: Roth #12-30

Checklist Completed by: EHS

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

Date/time completed: 10/20/23

Airbill #: N/A

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

Cooler Number/Temperature: 119 °C 1 °C 1 °C (Describe) °C

Thermometer ID: 1004

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

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

Reviewed by (Project Manager) [Signature]

10/24/23  
Date/Time Reviewed

Origins Laboratory, Inc.

[Signature]

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 - Roth #12-30

## MW-01

10/20/2023 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y310597-01 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B3J2321	JSM	10/23/2023	10/25/2023	U
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	JSM	"	"	U
Benzene	ND	1.00	"	"	"	JSM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JSM	"	"	U
Naphthalene	ND	2.00	"	"	"	JSM	"	"	U
Toluene	ND	1.00	"	"	"	JSM	"	"	U
Xylenes, total	ND	1.00	"	"	"	JSM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130	"	"	"
Surrogate: Toluene-d8	99.2 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	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 - Roth #12-30

## MW-02

10/20/2023 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y310597-02 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B3J2321	JSM	10/23/2023	10/25/2023	U
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	JSM	"	"	U
Benzene	ND	1.00	"	"	"	JSM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JSM	"	"	U
Naphthalene	ND	2.00	"	"	"	JSM	"	"	U
Toluene	ND	1.00	"	"	"	JSM	"	"	U
Xylenes, total	ND	1.00	"	"	"	JSM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	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 - Roth #12-30

## MW-03

10/20/2023 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y310597-03 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B3J2321	JSM	10/23/2023	10/25/2023	U
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	JSM	"	"	U
Benzene	ND	1.00	"	"	"	JSM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JSM	"	"	U
Naphthalene	ND	2.00	"	"	"	JSM	"	"	U
Toluene	ND	1.00	"	"	"	JSM	"	"	U
Xylenes, total	ND	1.00	"	"	"	JSM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	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 - Roth #12-30

## MW-04

10/20/2023 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y310597-04 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B3J2321	JSM	10/23/2023	10/25/2023	U
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	JSM	"	"	U
Benzene	ND	1.00	"	"	"	JSM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JSM	"	"	U
Naphthalene	ND	2.00	"	"	"	JSM	"	"	U
Toluene	ND	1.00	"	"	"	JSM	"	"	U
Xylenes, total	ND	1.00	"	"	"	JSM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	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 - Roth #12-30

## MW-05

10/20/2023 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y310597-05 (Water)

### BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B3J2321	JSM	10/23/2023	10/25/2023	U
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	JSM	"	"	U
Benzene	ND	1.00	"	"	"	JSM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JSM	"	"	U
Naphthalene	ND	2.00	"	"	"	JSM	"	"	U
Toluene	ND	1.00	"	"	"	JSM	"	"	U
Xylenes, total	ND	1.00	"	"	"	JSM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	102 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	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 - Roth #12-30

**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 B3J2321 - EPA 5030B (Water)</b>										
<b>Blank (B3J2321-BLK1)</b>					Prepared: 10/23/2023 Analyzed: 10/23/2023					
1,2,4-Trimethylbenzene	ND	2.00	ug/L							U
1,3,5-Trimethylbenzene	ND	2.00	"							U
Benzene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Naphthalene	ND	2.00	"							U
Toluene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.2	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		105	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 - Roth #12-30

**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 B3J2321 - EPA 5030B (Water)</b>										
<b>LCS (B3J2321-BS1)</b>					Prepared: 10/23/2023 Analyzed: 10/23/2023					
1,2,4-Trimethylbenzene	47.1	2.00	ug/L	50.0		94.3	70-130			
1,3,5-Trimethylbenzene	49.2	2.00	"	50.0		98.5	70-130			
Benzene	43.0	1.00	"	50.0		86.0	70-130			
Ethylbenzene	48.8	1.00	"	50.0		97.6	70-130			
m,p-Xylene	97.1	2.00	"	100		97.1	70-130			
Naphthalene	40.2	2.00	"	50.0		80.3	70-130			
o-Xylene	47.8	1.00	"	50.0		95.5	70-130			
Toluene	44.6	1.00	"	50.0		89.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.7	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		108	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 - Roth #12-30

## 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 B3J2321 - EPA 5030B (Water)										
Matrix Spike (B3J2321-MS1)		Source: Y310596-01			Prepared: 10/23/2023 Analyzed: 10/27/2023					
1,2,4-Trimethylbenzene	49.9	2.00	ug/L	50.0	0.120	99.6	70-130			
1,3,5-Trimethylbenzene	49.6	2.00	"	50.0	ND	99.3	70-130			
Benzene	49.4	1.00	"	50.0	ND	98.7	70-130			
Ethylbenzene	50.1	1.00	"	50.0	0.140	99.9	70-130			
m,p-Xylene	100	2.00	"	100	0.180	100	70-130			
Naphthalene	50.0	2.00	"	50.0	0.740	98.5	70-130			
o-Xylene	49.7	1.00	"	50.0	ND	99.4	70-130			
Toluene	47.3	1.00	"	50.0	ND	94.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.1	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.7	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	70-130			

Origins Laboratory, Inc.



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



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

Andrew Newberry  
Project Number: [none]  
Project: Noble - Roth #12-30

## 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 B3J2321 - EPA 5030B (Water)										
Matrix Spike Dup (B3J2321-MSD1)			Source: Y310596-01		Prepared: 10/23/2023 Analyzed: 10/23/2023					
1,2,4-Trimethylbenzene	52.8	2.00	ug/L	50.0	0.120	105	70-130	5.61	20	
1,3,5-Trimethylbenzene	53.7	2.00	"	50.0	ND	107	70-130	7.86	20	
Benzene	44.0	1.00	"	50.0	ND	88.1	70-130	11.4	20	
Ethylbenzene	51.4	1.00	"	50.0	0.140	103	70-130	2.64	20	
m,p-Xylene	107	2.00	"	100	0.180	107	70-130	6.24	20	
Naphthalene	46.8	2.00	"	50.0	0.740	92.2	70-130	6.51	20	
o-Xylene	54.6	1.00	"	50.0	ND	109	70-130	9.30	20	
Toluene	49.7	1.00	"	50.0	ND	99.4	70-130	4.95	20	
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.2	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	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 - Roth #12-30

### Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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.*



November 21, 2023

Eagle Environmental Consulting, LLC

Andrew Newberry

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Roth #12-30

Project Number - [none]

Attached are your analytical results for Noble - Roth #12-30 received by Origins Laboratory, Inc. October 31, 2023. This project is associated with Origins project number Y310813-01.

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 - Roth #12-30

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-01	Y310813-01	Water	October 31, 2023 10:55	10/31/2023 13:37
MW-02	Y310813-02	Water	October 31, 2023 11:05	10/31/2023 13:37
MW-03	Y310813-03	Water	October 31, 2023 11:15	10/31/2023 13:37
MW-04	Y310813-04	Water	October 31, 2023 11:25	10/31/2023 13:37
MW-05	Y310813-05	Water	October 31, 2023 11:35	10/31/2023 13:37

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

Andrew Newberry  
Project Number: [none]  
Project: Noble - Roth #12-30

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page 1 of 1

**4310813**

Client: Eagle Environmental Consulting  
Address: 8000 W. 44th Ave.,  
Wheat Ridge, CO 80033  
Telephone Number: 303-433-0479  
Email Address: anewberry@eagle-enviro.com

Project Manager: Andrew Newberry  
Project Name: Roth #12-30  
Project Number: 1  
Samples Collected By: BU

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa Canister #	
MW-01	10-31-23	1055	1	X				X			1
MW-02		1105	1								2
MW-03		1115	1								3
MW-04		1125	1								4
MW-05		1135	1								5
											6
											7
											8
											9
											10

Relinquished By: Billie Ulrich Date: 10-31-23 Time: 1337  
Relinquished By: Date: Time:

Received By: EHS Date: 10/31/23 Time: 1337  
Received By: Date: Time:

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

Date Results Needed: Noble

Temp Received: 5.4

Bill to Dan

Origins Laboratory, Inc.

*J. Bynon*

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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Roth #12-30

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 4310813

Client: Eagle

Client Project ID: Roth #12-30

Checklist Completed by: FHS

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

Date/time completed: 10/31/23

Airbill #: N/A

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

Cooler Number/Temperature: 1 15.4 °C 1 °C 1 °C (Describe) °C

Thermometer ID: 1004

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

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

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 10/1/23

Origins Laboratory, Inc.

[Signature]

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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Roth #12-30

MW-01

10/31/2023 10:55:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y310813-01 (Water)

Dissolved Metals by EPA 200.8

Arsenic	13.7	0.111	ug/L	1	B3K0220	CIH	11/02/2023	11/07/2023
Barium	42.3	1.11	"	"	"	CIH	"	"
Lead	ND	0.111	"	"	"	CIH	"	"
Selenium	4.37	0.111	"	"	"	CIH	"	11/08/2023

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Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Roth #12-30

MW-02

10/31/2023 11:05:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y310813-02 (Water)

Dissolved Metals by EPA 200.8

Arsenic	6.64	0.111	ug/L	1	B3K0220	CIH	11/02/2023	11/07/2023
Barium	48.5	1.11	"	"	"	CIH	"	"
Lead	ND	0.111	"	"	"	CIH	"	"
Selenium	2.27	0.111	"	"	"	CIH	"	"

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Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Roth #12-30

MW-03

10/31/2023 11:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y310813-03 (Water)

Dissolved Metals by EPA 200.8

Arsenic	17.6	0.111	ug/L	1	B3K0220	CIH	11/02/2023	11/07/2023
Barium	30.7	1.11	"	"	"	CIH	"	"
Lead	ND	0.111	"	"	"	CIH	"	"
Selenium	2.46	0.111	"	"	"	CIH	"	"

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Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Roth #12-30

## MW-04

10/31/2023 11:25:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y310813-04 (Water)

### Dissolved Metals by EPA 200.8

Arsenic	16.5	0.111	ug/L	1	B3K0220	CIH	11/02/2023	11/07/2023
Barium	45.4	1.11	"	"	"	CIH	"	"
Lead	ND	0.111	"	"	"	CIH	"	"
Selenium	2.45	0.111	"	"	"	CIH	"	"

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8000 W 44th Ave  
Wheat Ridge CO 80033

Andrew Newberry  
Project Number: [none]  
Project: Noble - Roth #12-30

MW-05

10/31/2023 11:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y310813-05 (Water)

Dissolved Metals by EPA 200.8

Arsenic	5.65	0.111	ug/L	1	B3K0220	CIH	11/02/2023	11/07/2023
Barium	85.4	1.11	"	"	"	CIH	"	"
Lead	ND	0.111	"	"	"	CIH	"	"
Selenium	2.66	0.111	"	"	"	CIH	"	"

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## Metals by EPA 200 Series Methods - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3K0220 - EPA 200.8 Preparation</b>										
<b>Blank (B3K0220-BLK1)</b>					Prepared: 11/02/2023 Analyzed: 11/07/2023					
Arsenic	ND	0.100	ug/L							
Barium	ND	1.00	"							
Lead	ND	0.100	"							
Selenium	ND	0.100	"							
<b>LCS (B3K0220-BS1)</b>					Prepared: 11/02/2023 Analyzed: 11/07/2023					
Arsenic	50.5	0.100	ug/L	50.0		101	85-115			
Barium	4750	1.00	"	5000		95.0	85-115			
Lead	48.7	0.100	"	50.0		97.4	85-115			
Selenium	56.5	0.100	"	50.0		113	85-115			
<b>Matrix Spike (B3K0220-MS1)</b>					<b>Source: Y310806-01</b>		Prepared: 11/02/2023 Analyzed: 11/07/2023			
Arsenic	57.5	1.11	ug/L	55.6	2.93	98.3	70-130			
Barium	5410	11.1	"	5560	107	95.5	70-130			
Lead	52.6	1.11	"	55.6	ND	94.8	70-130			
Selenium	97.2	1.11	"	55.6	34.4	113	70-130			
<b>Matrix Spike Dup (B3K0220-MSD1)</b>					<b>Source: Y310806-01</b>		Prepared: 11/02/2023 Analyzed: 11/07/2023			
Arsenic	58.6	1.11	ug/L	55.6	2.93	100	70-130	1.89	25	
Barium	5430	11.1	"	5560	107	95.8	70-130	0.294	25	
Lead	51.9	1.11	"	55.6	ND	93.5	70-130	1.38	25	
Selenium	96.7	1.11	"	55.6	34.4	112	70-130	0.493	25	

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Andrew Newberry

Project Number: [none]

Project: Noble - Roth #12-30

### Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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