

Wellhead Closure Checklist

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

Additional attachments (optional):		Pit Closure		Tank Battery Closure		Flowline Closure 5-17-22		Partially Buried Vault Closure
Site Name & COGCC Facility Number: UPRR 39 Pan Am G #1	Date: 4-12-22							Remediation Project #: 21717
Associated Wells: 05-123-14467	Age of Site: years							Number of Photos Attached: 1
Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple) 40.250650 / -104.616910							Estimated Facility Size (acres):	
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.) <p style="text-align: center; font-size: 1.2em;">Good Condition</p>								
USCS Soil Type: SC				Estimated Depth to Groundwater: ~7-15'				
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) <p style="text-align: center; font-size: 1.2em;">None observed</p>								
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) <p style="text-align: center; font-size: 1.2em;">None observed</p>								
Wellhead(s)								
Well API	05-123-14467							
Age	years							
Condition of surface around wellhead	Good-Per Crew							
PID Readings	N/A-Excavated upon arrival							
Condition of subsurface (staining, seepage)	Good-no staining / no odor							
PID Readings	0.5	1.6	2.1	3.1	4.5			
Sample taken? Location/Sample ID#	WH-SS-01@5'	WH-SS-02@5'	WH-SS-03@5'	WH-SS-04@5'	WH-FS-01@6'			
Photo Number(s)	See photolog							
Other observations regarding wellheads: <p style="text-align: center; font-size: 1.2em;">Well casing cut/capped following assessment</p>								
Summary								
Was impacted soil identified? <input checked="" type="radio"/> No Yes - less than 10 cubic yards Yes - more than 10 cubic yards								
Total number of samples field screened: 5				Total number of samples collected: 5				
Highest PID Reading: 4.5				Total number of samples submitted to lab for analysis: 1				
If more than 10 cubic yards of impacted soil were observed:								
Vertical extent:				Estimated spill volume:				
Lateral extent:				Volume of soil removed:				
Is additional investigation required? <p style="text-align: center; font-size: 1.5em;">N/A</p>								
Was groundwater encountered during the investigation? <input checked="" type="radio"/> No Yes - not impacted or in contact with impacted soils Yes - groundwater impacted and/or in contact with impacted soils								
Measured depth to groundwater:				Was remedial/groundwater removal conducted? Yes No				
Date Groundwater was encountered:				Commencement date of removal:				
Sheen on groundwater? Yes No				Volume of groundwater removed prior to sampling:				
Free product observed? Yes No				Volume of groundwater removed post sampling:				
Total number of samples collected:				Total Volume of groundwater removed:				
Total number of samples submitted to lab for analysis:								

Flowline Closure Checklist

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

Additional Attachments:	Tank Battery Closure	Wellhead Closure 4-12-22	Pit Closure	Partially Buried Vault Closure
Site Name & COGCC Facility Number: UPRR 39 Pan Am G#1		Date: 5-17-22		Remediation Project #: 21717
Associated Wells: 05-123-14467		Age of Site: years		Number of Photos Attached: 14

Starting point: (GPS coordinates and descriptions) At well: 40.250650 / -104.616910

End point: (GPS coordinates and descriptions) At sep: 40.253063 / -104.620438

USCS Soil Type: SC Estimated Depth to Groundwater: ~7-15'

Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)
None observed

Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)
None observed

Flowlines

Flowline type	O, G, W			
Depth	~3'			
Age	years			
Length	~1310'			
Construction Material	Steel			
Were flowlines pulled?	Yes - Partially. A portion was abandoned in place - see aerial figure			
Visual Integrity of lines	Good			
Visual impacts if trenched	None observed			
PID Readings if trenched	0.8	0.4	4.9	0.1 to 3.1
Sample taken? Location/Sample ID#	FL-SS-10 @4'	FL-SS-11 @4'	FL-SS-14 @3'	11 additional locations; field screened - see PID table
Photo Number(s)	See photoblog			

Other observations regarding on location flowlines: Flowline terminus/Pt. B at separator + points of Flowline abandonment were assessed + lab analyzed. 11 additional locations along flowline removal trench were assessed.

Summary

Was impacted soil identified? No Yes - less than 10 cubic yards Yes - more than 10 cubic yards

Total number of samples field screened: 14 Total number of samples collected: 14

Highest PID Reading: 4.9 Total number of samples submitted to lab for analysis: 3

If more than 10 cubic yards of impacted soil were observed:

Vertical extent: Lateral extent: N/A Estimated spill volume: Volume of soil removed:

Is additional investigation required?

Was groundwater encountered during the investigation? No Yes - not impacted or in contact with impacted soils Yes - groundwater impacted and/or in contact with impacted soils

Measured depth to groundwater: Was remedial groundwater removal conducted? Yes No

Date Groundwater was encountered: Commencement date of removal:

Sheen on groundwater? Yes No Volume of groundwater removed prior to sampling:

Free product observed? Yes No Volume of groundwater removed post sampling:

Total number of samples collected: Total Volume of groundwater removed:

Total number of samples submitted to lab for analysis:



FIGURES

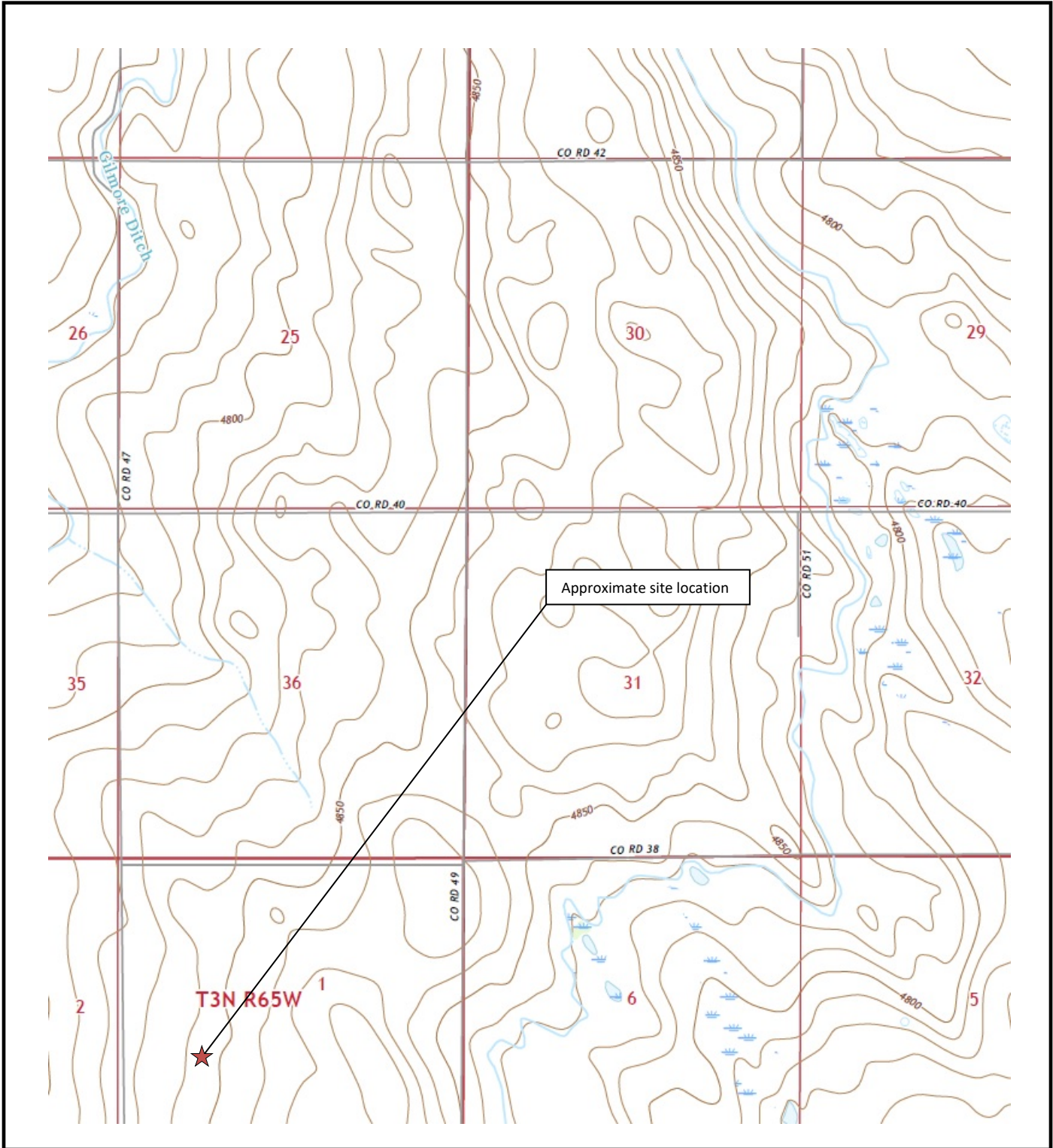
Figure 1: Topographic Site Location Map

Figure 2: Aerial Site Location Map

Figure 3: Soil Analytical Map

Figure 4: Polycyclic Aromatic Hydrocarbons Map

Figure 5: Metals in Soil Map



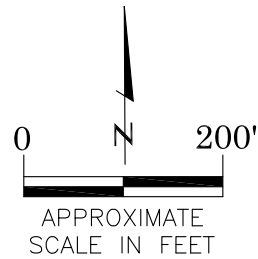
	<p>Topographic Site Location Map UPRR 39 Pan Am G #1 Closure Assessment 40.250650 / -104.616910 SW¼ SW¼ SEC.1 T3N R65W 6PM Weld County, Colorado API # 05-123-14467 Remediation # 21717</p>
<p>Source: USGS 7.5 Minute Topographic Map, Valley View School, CO Quadrangle 2022</p>	<p>Figure 1</p>





LEGEND

- FORMER UPRR 39 PAN AM G #1 WELLHEAD (PLUGGED AND ABANDONED)
- ASSOCIATED SEPARATOR
- APPROXIMATE FLOWLINE LOCATION (REMOVED)
- APPROXIMATE FLOWLINE LOCATION (ABANDONED IN PLACE)



AERIAL SITE LOCATION MAP
 UPRR 39 PAN AM G #1
 CLOSURE ASSESSMENT
 40.250650 / -104.616910
 SW¼ SW¼ SEC.1 T3N R65W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-14467
 REMEDIATION # 21717

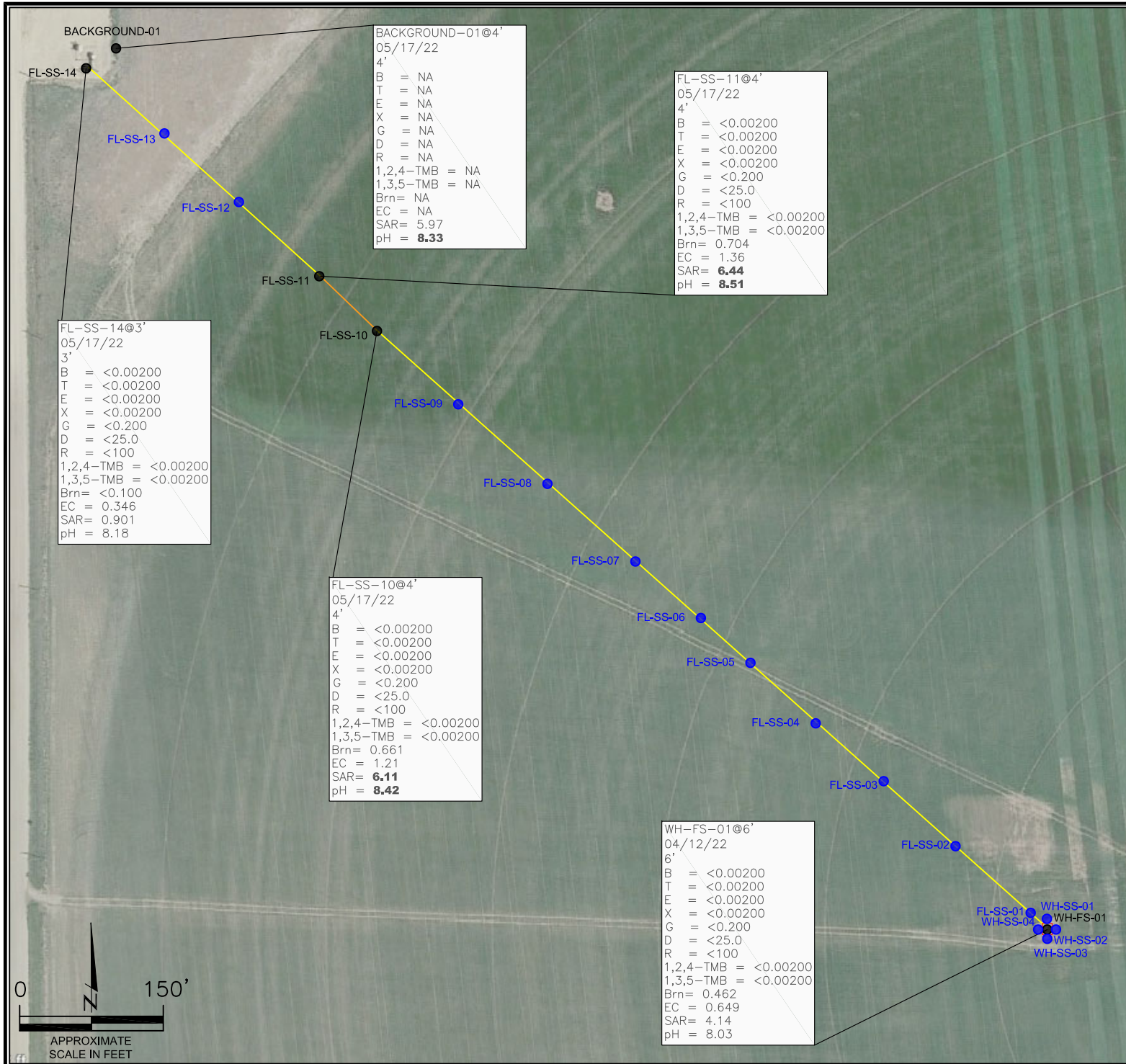
DATE: 05/25/22	
FIG. NO. 2	DRAWN BY: AMN



EAGLE

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



BACKGROUND-01@4'
05/17/22
4'
B = NA
T = NA
E = NA
X = NA
G = NA
D = NA
1,2,4-TMB = NA
1,3,5-TMB = NA
Brn = NA
EC = NA
SAR = 5.97
pH = **8.33**

FL-SS-11@4'
05/17/22
4'
B = <0.00200
T = <0.00200
E = <0.00200
X = <0.00200
G = <0.200
D = <25.0
R = <100
1,2,4-TMB = <0.00200
1,3,5-TMB = <0.00200
Brn = 0.704
EC = 1.36
SAR = **6.44**
pH = **8.51**

FL-SS-14@3'
05/17/22
3'
B = <0.00200
T = <0.00200
E = <0.00200
X = <0.00200
G = <0.200
D = <25.0
R = <100
1,2,4-TMB = <0.00200
1,3,5-TMB = <0.00200
Brn = <0.100
EC = 0.346
SAR = 0.901
pH = 8.18

FL-SS-10@4'
05/17/22
4'
B = <0.00200
T = <0.00200
E = <0.00200
X = <0.00200
G = <0.200
D = <25.0
R = <100
1,2,4-TMB = <0.00200
1,3,5-TMB = <0.00200
Brn = 0.661
EC = 1.21
SAR = **6.11**
pH = **8.42**

WH-FS-01@6'
04/12/22
6'
B = <0.00200
T = <0.00200
E = <0.00200
X = <0.00200
G = <0.200
D = <25.0
R = <100
1,2,4-TMB = <0.00200
1,3,5-TMB = <0.00200
Brn = 0.462
EC = 0.649
SAR = 4.14
pH = 8.03

LEGEND

- INITIAL WELLHEAD ASSESSMENT BOUNDARIES
- APPROXIMATE FLOWLINE LOCATION (REMOVED)
- APPROXIMATE FLOWLINE LOCATION (ABANDONED)
- APPROXIMATE LOCATION OF SOIL SAMPLES FIELD SCREENED, ONLY, WITH PHOTOIONIZATION DETECTOR
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

PARAMETERS

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

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

NA = NOT ANALYZED

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

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

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

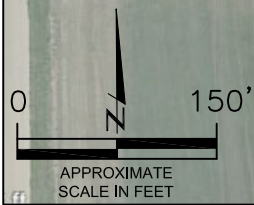
COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION

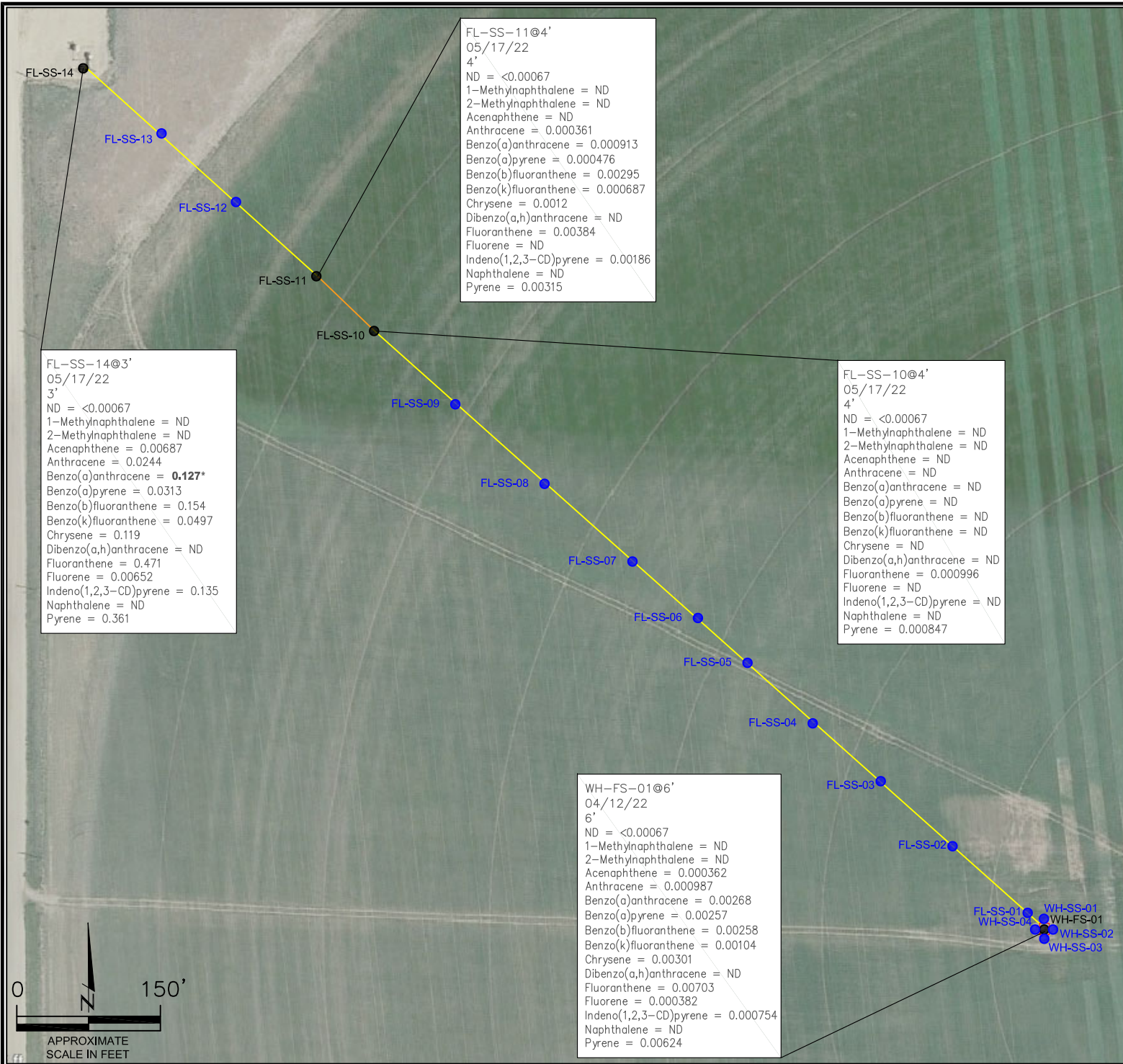
SOIL ANALYTICAL MAP
UPRR 39 PAN AM G #1
CLOSURE ASSESSMENT
40.250650 / -104.616910
SW¼ SW¼ SEC.1 T3N R65W 6PM
WELD COUNTY, COLORADO
API # 05-123-14467
REMEDATION # 21717

DATE:
07/26/22
DRAWN BY:
AMN
FIG.
NO. 3



EAGLE
ENVIRONMENTAL
CONSULTING, INC.
8000 W 44th Ave, Wheat Ridge, CO 80033
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LEGEND

- INITIAL WELLHEAD ASSESSMENT BOUNDARIES
- APPROXIMATE FLOWLINE LOCATION (REMOVED)
- APPROXIMATE FLOWLINE LOCATION (ABANDONED)
- APPROXIMATE LOCATION OF SOIL SAMPLES FIELD SCREENED, ONLY, WITH PHOTOIONIZATION DETECTOR
- APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

PARAMETERS

SAMPLE LOCATION
DATE SAMPLE COLLECTED
APPROXIMATE DEPTH

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)

NOTE:
CONCENTRATIONS PRESENTED IN mg/kg

mg/kg = MILLIGRAMS PER KILOGRAM

ND = NON-DETECT

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

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

VALUES PRESENTED WITH AN ASTERISK (*) EXCEED COGCC TABLE 915-1 GROUNDWATER SOIL SCREENING LEVELS FOR THAT COMPOUND

COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION

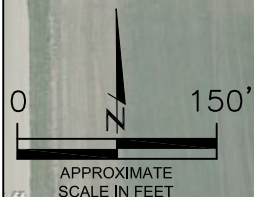
POLYCYCLIC AROMATIC HYDROCARBONS MAP
UPRR 39 PAN AM G #1
CLOSURE ASSESSMENT
40.250650 / -104.616910
SW¼ SW¼ SEC.1 T3N R65W 6PM
WELD COUNTY, COLORADO
API # 05-123-14467
REMEDATION # 21717

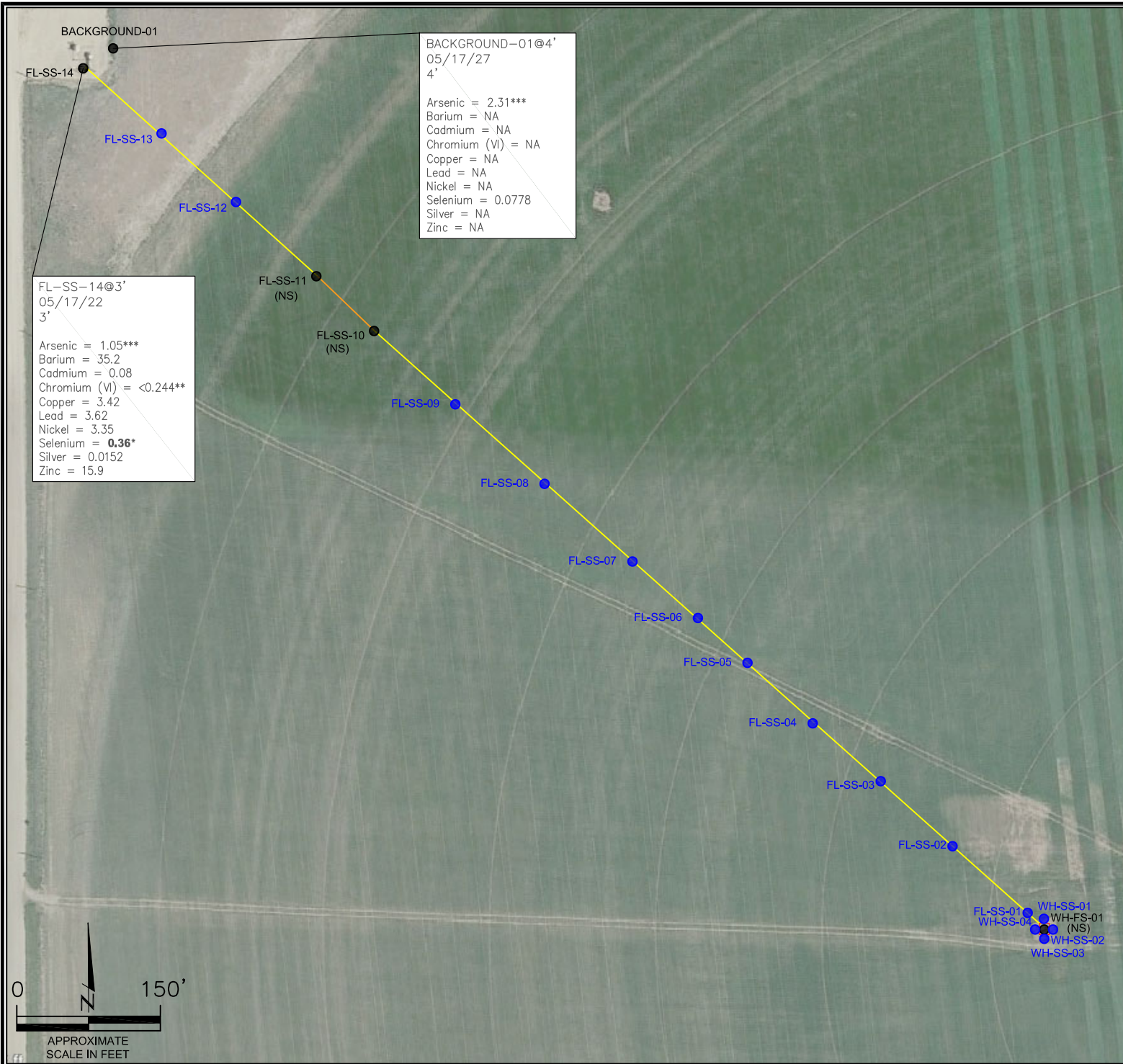
DATE:
05/25/22

DRAWN BY:
AMN

FIG. NO. 4

EAGLE ENVIRONMENTAL CONSULTING, INC.
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LEGEND

- INITIAL WELLHEAD ASSESSMENT BOUNDARIES
- APPROXIMATE FLOWLINE LOCATION (REMOVED)
- APPROXIMATE FLOWLINE LOCATION (ABANDONED)
- APPROXIMATE LOCATION OF SOIL SAMPLES FIELD SCREENED, ONLY, WITH PHOTOIONIZATION DETECTOR
- SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

PARAMETERS

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

mg/kg = MILLIGRAMS PER KILOGRAM

NA - NOT ANALYZED
(NS) - NOT SAMPLED

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

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

*VALUES EXCEED COGCC TABLE 915-1 PROTECTION OF GROUNDWATER SOIL SCREENING LEVELS.

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

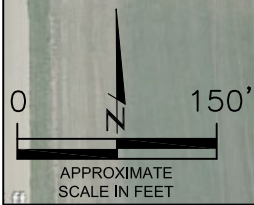
***ARSENIC IS NATURALLY OCCURRING IN COLORADO. LOCAL CLEAN-UP LEVEL (2.89 mg/kg) IS 1.25*BACKGROUND (2.31 mg/kg).

COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION

METALS IN SOIL MAP
UPRR 39 PAN AM G #1
CLOSURE ASSESSMENT
40.250650 / -104.616910
SW¼ SW¼ SEC.1 T3N R65W 6PM
WELD COUNTY, COLORADO
API # 05-123-14467
REMEDATION # 21717

DATE:
07/26/22
DRAWN BY:
AMN
FIG.
NO. 5

EAGLE ENVIRONMENTAL CONSULTING, INC.
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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 1
PHOTOIONIZATION DETECTOR READING SUMMARY
UPRR 39 PAN AM G #1
CLOSURE ASSESSMENT
40.250650 / -104.616910
SW1/4 SW1/4 SEC.1 T3N R65W 6PM
WELD COUNTY, COLORADO
API # 05-123-14467
REMEDIAION # 21717

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Lab Submission (Y/N)
WH-SS-01 @ 5' (40.250684 / -104.616926)	04/12/22	5	0.5	N
WH-SS-02 @ 5' (40.250663 / -104.616892)	04/12/22	5	1.6	N
WH-SS-03 @ 5' (40.250641 / -104.616926)	04/12/22	5	2.1	N
WH-SS-04 @ 5' (40.250664 / -104.616959)	04/12/22	5	3.1	N
WH-FS-01 @ 6' (40.250660 / -104.616926)	04/12/22	6	4.5	Y
FL-SS-01 @ 4' (40.250699 / -104.616983)	05/16/22	4	3.0	N
FL-SS-02 @ 4' (40.250890 / -104.617263)	05/16/22	4	2.7	N
FL-SS-03 @ 4' (40.251064 / -104.617512)	05/16/22	4	3.1	N
FL-SS-04 @ 4' (40.251250 / -104.617785)	05/16/22	4	2.1	N
FL-SS-05 @ 4' (40.251393 / -104.617989)	05/17/22	4	0.1	N
FL-SS-06 @ 4' (40.251534 / -104.618191)	05/17/22	4	0.1	N
FL-SS-07 @ 4' (40.251688 / -104.618420)	05/17/22	4	0.3	N
FL-SS-08 @ 4' (40.251922 / -104.618759)	05/17/22	4	0.2	N
FL-SS-09 @ 4' (40.252144 / -104.619089)	05/17/22	4	1.7	N
FL-SS-10 @ 4' (40.252342 / -104.619373)	05/17/22	4	0.8	Y
FL-SS-11 @ 4' (40.252486 / -104.619582)	05/17/22	4	0.4	Y
FL-SS-12 @ 4' (40.252691 / -104.619878)	05/17/22	4	0.6	N
FL-SS-13 @ 4' (40.252893 / -104.620170)	05/17/22	4	1.0	N
FL-SS-14 @ 3' (40.253069 / -104.620433)	05/17/22	3	4.9	Y
Background-01 @ 4' (40.253149 / -104.620324)	05/17/22	4	1.9	Y
(Y/N) = Yes or No ppm-v = parts per million by volume PID = Photoionization Detector				

TABLE 2
SOIL ANALYTICAL RESULTS SUMMARY
UPRR 39 PAN AM G #1
CLOSURE ASSESSMENT
40.250650 / -104.616910
SW1/4 SW1/4 SEC.1 T3N R65W 6PM
WELD COUNTY, COLORADO
API # 05-123-14467
REMEDIAION # 21717

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
COGCC Table 915-1 Residential Screening Levels (mg/kg)				1.20	490	5.8	58	500			30	27	2	<4	6-8.3	<6
COGCC Table 915-1 Protection of Groundwater Soil Screening Levels				0.0026	0.69	0.78	9.9	--			0.0081	0.0087	--	--	--	--
WH-FS-01 @ 6' (40.250660 / -104.616926)	04/12/22	6	4.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	0.462	0.649	8.03	4.14
FL-SS-10 @ 4' (40.252342 / -104.619373)	05/17/22	4	0.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	0.661	1.21	8.42	6.11
FL-SS-11 @ 4' (40.252486 / -104.619582)	05/17/22	4	0.4	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	0.704	1.36	8.51	6.44
FL-SS-14 @ 3' (40.253069 / -104.620433)	05/17/22	3	4.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	<0.100	0.346	8.18	0.901
Background-01 @ 4' (40.253149 / -104.620324)	05/17/22	4	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.33	5.97
COGCC = Colorado Oil and Gas Conservation 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 BOLD contained concentrations exceeding COGCC Table 915-1 Regulatory Limits.																

TABLE 3
POLYCYCLIC AROMATIC HYDROCARBONS ANALYTICAL RESULTS SUMMARY
 UPRR 39 PAN AM G #1
 CLOSURE ASSESSMENT
 40.250650 / -104.616910
 SW1/4 SW1/4 SEC.1 T3N R65W 6PM
 WELD COUNTY, COLORADO
 API # 05-123-14467
 REMEDIATION # 21717

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)	
COGCC Table 915-1 Residential Screening Levels				18	24	360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	2	180	
COGCC Table 915-1 Protection of Groundwater Soil Screening Levels				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-FS-01 @ 6' (40.250660 / -104.616926)	04/12/22	6	4.5	<0.00067	<0.00067	0.000362	0.000987	0.00268	0.00257	0.00258	0.00104	0.00301	<0.00067	0.00703	0.000382	0.000754	<0.00067	0.00624	
FL-SS-10 @ 4' (40.252342 / -104.619373)	05/17/22	4	0.8	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.000996	<0.00067	<0.00067	<0.00067	0.000847	
FL-SS-11 @ 4' (40.252486 / -104.619582)	05/17/22	4	0.4	<0.00067	<0.00067	<0.00067	0.000361	0.000913	0.000476	0.00295	0.000687	0.0012	<0.00067	0.00384	<0.00067	0.00186	<0.00067	0.00315	
FL-SS-14 @ 3' (40.253069 / -104.620433)	05/17/22	3	4.9	<0.00067	<0.00067	0.00687	0.0224	0.127*	0.0313	0.154	0.0497	0.119	<0.00067	0.471	0.00652	0.135	<0.00067	0.361	
COGCC = Colorado Oil and Gas Conservation Commission				PID = Photoionization Detector															
mg/kg = milligrams per kilogram				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 BOLD contained concentrations exceeding COGCC Table 915-1 Regulatory Limits. Values presented with asterisk (*) exceed COGCC Table 915-1 Protection of Groundwater Soil Screening Levels.																			

TABLE 4
METALS ANALYTICAL RESULTS SUMMARY
UPRR 39 PAN AM G #1
CLOSURE ASSESSMENT
40.250650 / -104.616910
SW1/4 SW1/4 SEC.1 T3N R65W 6PM
WELD COUNTY, COLORADO
API # 05-123-14467
REMEDIATION # 21717

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)
COGCC Table 915-1 Residential Screening Levels			0.68***	15,000	71	0.3**	3,100	400	1,500	390	390	23,000
COGCC Table 915-1 Protection of Groundwater Soil Screening Levels			0.29***	82	0.38	0.00067**	46	14	26	0.26	0.8	370
Local Clean-up Levels			2.89***	--	--	0.1 to 1**	--	--	--	--	--	
FL-SS-14 @3' (40.253069 / -104.620433)	05/17/22	3	1.05***	35.2	0.08	<0.244**	3.42	3.62	3.35	0.36*	0.0152	15.9
Background-01 @ 4' (40.253149 / -104.620324)	05/17/22	4	2.31***	NA	NA	NA	NA	NA	NA	0.0778	NA	NA

COGCC = Colorado Oil and Gas Conservation Commission

NA - Not Analyzed

mg/kg = milligrams per kilogram

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

Values presented in **BOLD** contained concentrations exceeding applicable COGCC Table 915-1 Regulatory Limits

Values presented in **BOLD+*** contained concentrations exceeding COGCC Table 915-1 Protection of Groundwater Soil Screening Levels

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

***Arsenic is naturally occurring in Colorado. The Local Clean-up Level (2.89 mg/kg) is 1.25*Background (2.31 mg/kg).



ATTACHMENT A

Photo Log

UPRR 39 Pan Am G #1
API # 05-123-14467
Remediation # 21717

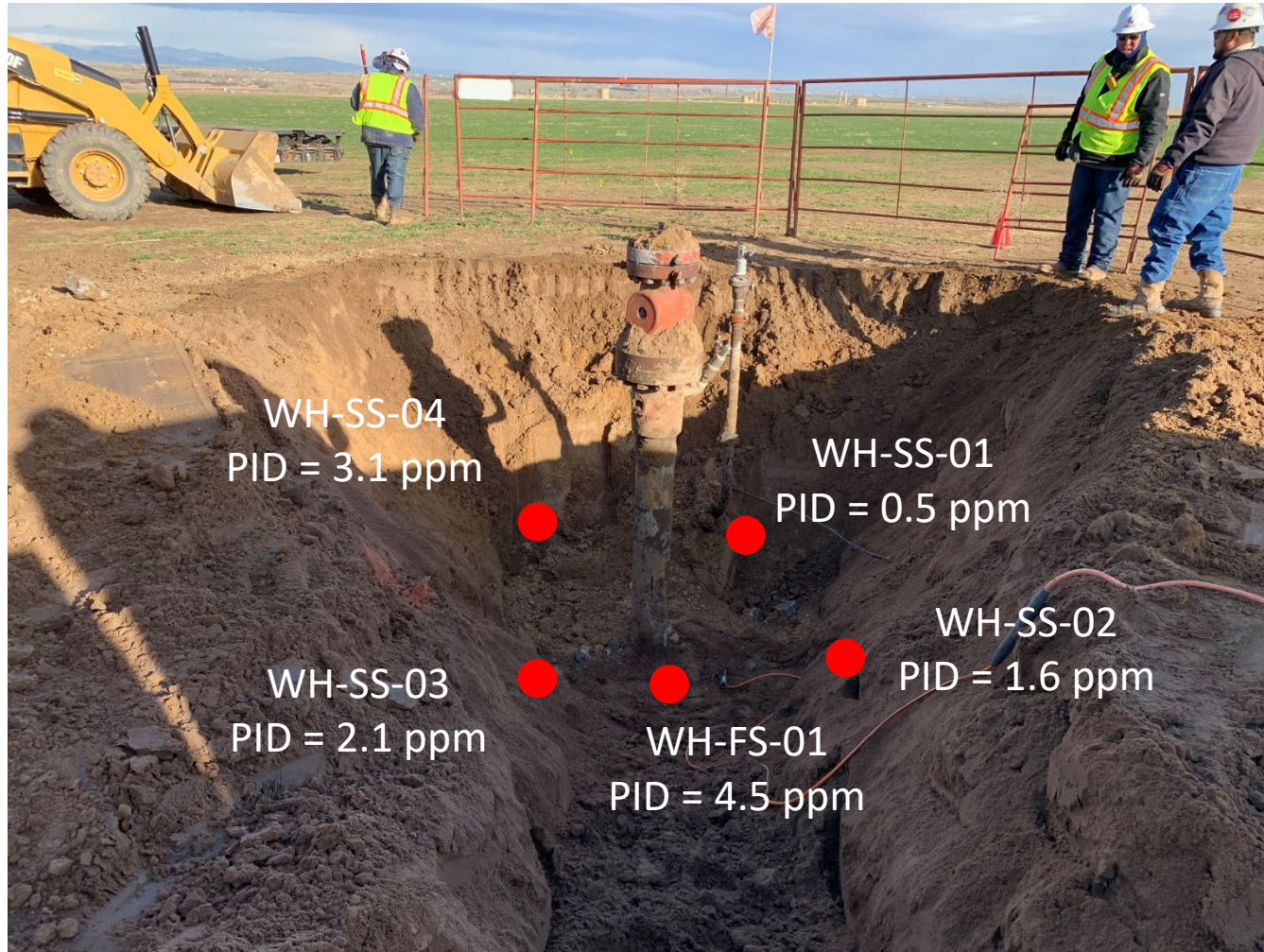
Closure Assessment
April-May 2022



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

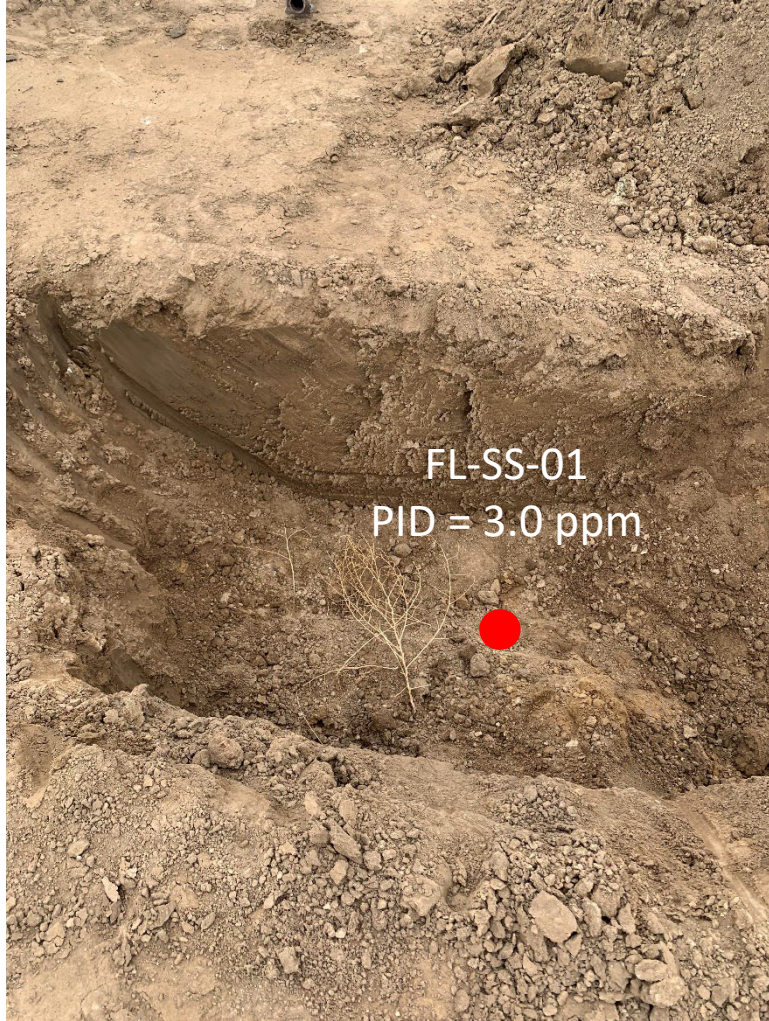


Wellhead Excavation – 04/12/22



Looking northwest
No petroleum hydrocarbon staining or odor observed

Flowline Removal/Assessment – 05/16/22



Looking southwest
No petroleum hydrocarbon staining or odor observed



Looking northwest
No petroleum hydrocarbon staining or odor observed



Looking northwest
No petroleum hydrocarbon staining or odor observed

Flowline Removal/Assessment – 05/16/22 & 05/17/22



Looking northwest
No petroleum hydrocarbon staining or odor observed



Looking northwest
No petroleum hydrocarbon staining or odor observed



Looking northwest
No petroleum hydrocarbon staining or odor observed

Flowline Removal/Assessment – 05/17/22



Looking northwest
No petroleum hydrocarbon staining or odor observed

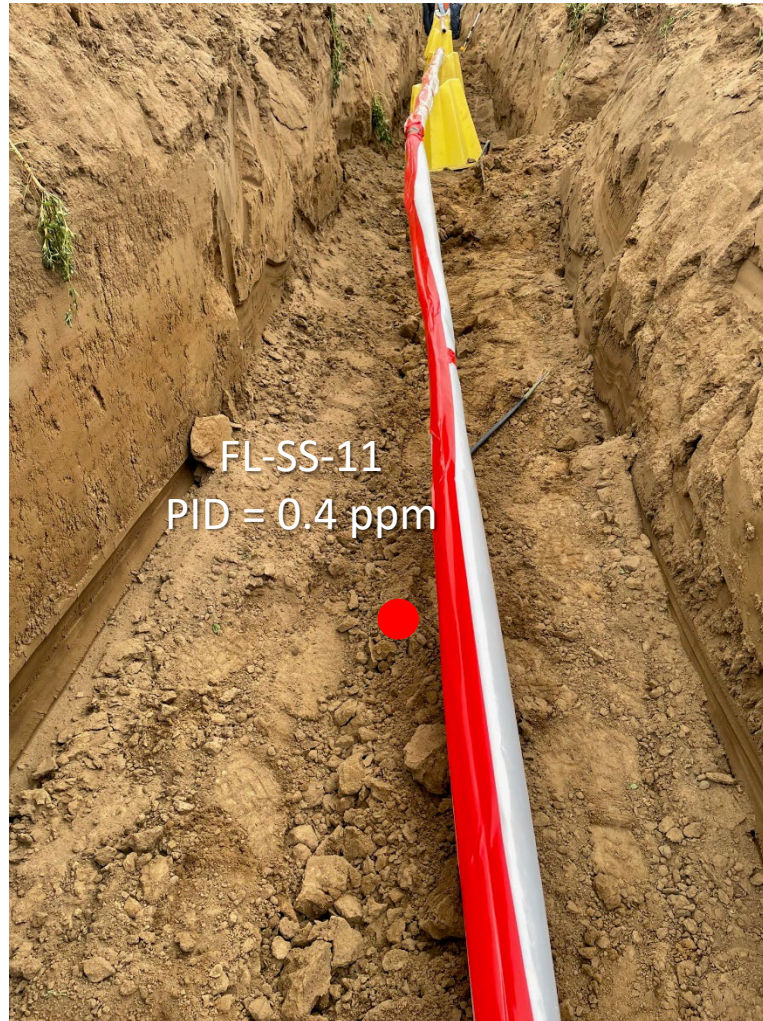
Looking northwest
No petroleum hydrocarbon staining or odor observed

Looking northwest
No petroleum hydrocarbon staining or odor observed

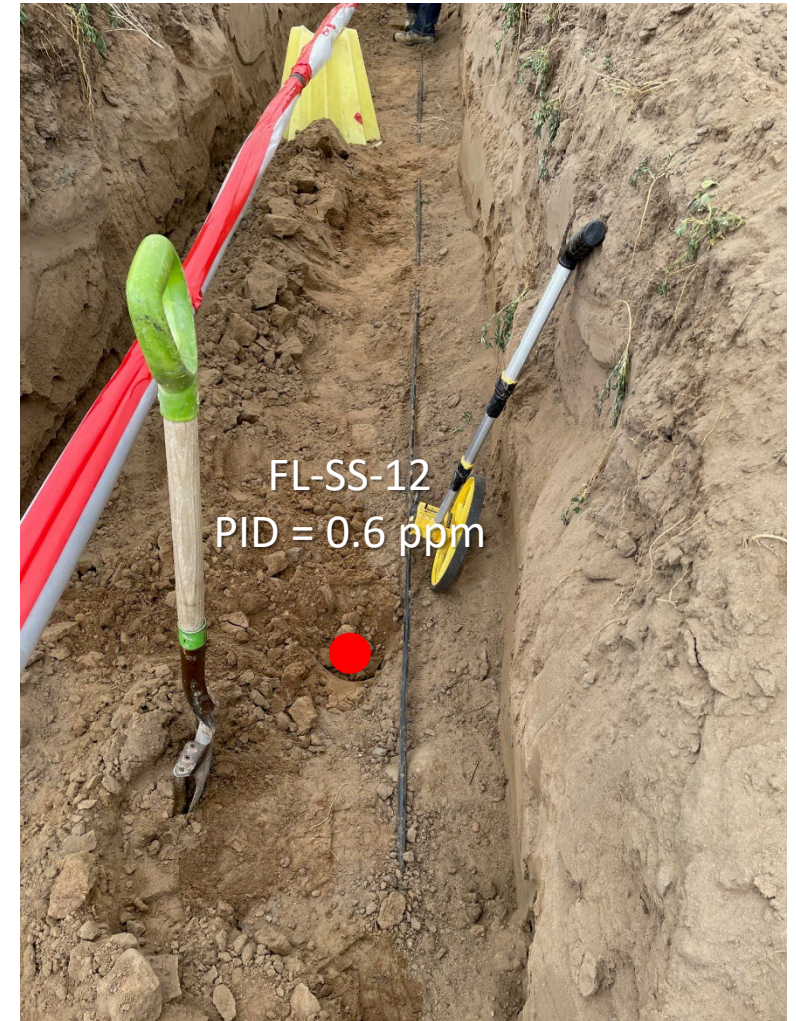
Flowline Removal/Assessment – 05/17/22



Looking northwest
No petroleum hydrocarbon staining or odor observed

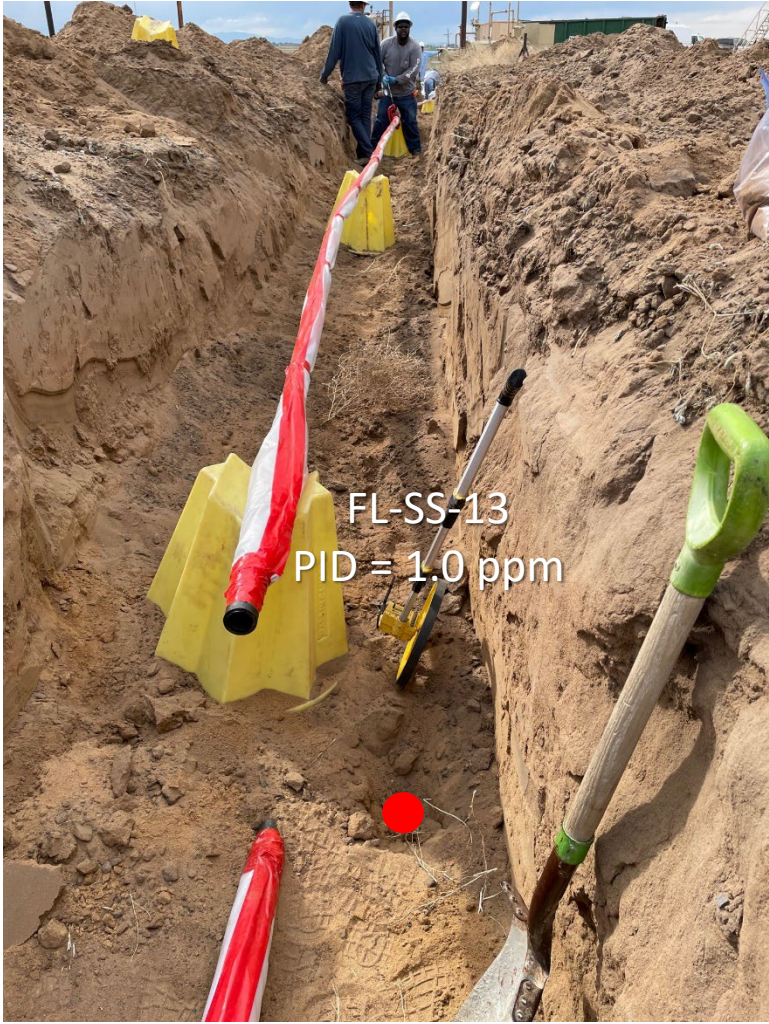


Looking northwest
No petroleum hydrocarbon staining or odor observed



Looking northwest
No petroleum hydrocarbon staining or odor observed

Flowline Removal/Assessment – 05/17/22



Looking northwest
No petroleum hydrocarbon staining or odor observed



Looking north
Pt B. / terminus at separator sampled for lab
No petroleum hydrocarbon staining or odor observed



ATTACHMENT B

Laboratory Analytical Reports



April 26, 2022

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - UPRR 39 Pan Am G #1

Project Number - [none]

Attached are your analytical results for Noble - UPRR 39 Pan Am G #1 received by Origins Laboratory, Inc. April 12, 2022. This project is associated with Origins project number Y204247-01.

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



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

Martin C Eckert III
Project Number: [none]
Project: Noble - UPRR 39 Pan Am G #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH-FS-01@6'	Y204247-01	Soil	April 12, 2022 8:23	04/12/2022 16:17

Origins Laboratory, Inc.



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

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y204247

Client: Eagle

Client Project ID: UPRR 39 Pan Am G #1

Checklist Completed by: SG

Shipped Via: HD

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

Date/time completed: 4/13/22

Airbill #: N/A

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

Cooler Number/Temperature: 1, 3.5 °C _____ °C _____ °C _____ °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 ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

Reviewed by (Project Manager) JB

4-14-22
 Date/Time Reviewed

Origins Laboratory, Inc.

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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

WH-FS-01@6'
4/12/2022 8:23:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y204247-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.462		0.101	mg/L	1	B2D1410	04/14/2022	04/15/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2D1405	04/14/2022	04/23/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U


Surrogate: o-Terphenyl	88.8 %		50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2D1328	04/13/2022	04/17/2022	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	110 %		70-130			"	"	"	
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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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

WH-FS-01@6'

4/12/2022 8:23:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y204247-01 (Soil)

GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	96.6 %		70-130			B2D13 28	04/13/2022	04/17/2022	
Surrogate: 4-Bromofluorobenzene	96.9 %		70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.13		0.499	meq/L	10	[CALC]	04/13/2022	04/14/2022	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	3.88		0.435	"	"	"	"	"	

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L611114	04/15/2022	04/18/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Acenaphthene	0.000362	0.000304	0.00067	"	"	"	"	"	J
Anthracene	0.000987	0.000334	0.00067	"	"	"	"	"	
Benzo(a)anthracene	0.00268	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	0.00257	0.000468	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	0.00258	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	0.00104	0.000437	0.00067	"	"	"	"	"	B
Chrysene	0.00301	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	0.00703	0.000394	0.00067	"	"	"	"	"	
Fluorene	0.000382	0.000286	0.00067	"	"	"	"	"	J

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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

WH-FS-01@6'

4/12/2022 8:23:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y204247-01 (Soil)

PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	0.000754	0.000627	0.00067	mg/Kg	1	L611114	04/15/2022	04/18/2022	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	
Pyrene	0.00624	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	43.1 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	57.8 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	49.2 %		29-110			"	"	"	

pH in Soil by 9045D

pH	8.03			pH Units	1	B2D1327	04/13/2022	04/14/2022	
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SAR by 20B Saturated Paste

SAR	4.14			SAR	1	B2D1318	04/13/2022	04/14/2022	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.649		0.00500	mmhos/cm	1	B2D1323	04/13/2022	04/14/2022	
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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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2D1328 - EPA 5030 (soil)

Blank (B2D1328-BLK1)

Prepared: 04/13/2022 Analyzed: 04/17/2022

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.0100	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125	106		70-130			
Surrogate: Toluene-d8	0.12		"	0.125	97.9		70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125	96.8		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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B2D1328 - EPA 5030 (soil)

LCS (B2D1328-BS1)

Prepared: 04/13/2022 Analyzed: 04/17/2022

1,2,4-Trimethylbenzene	0.115	0.00200	mg/kg	0.100		115	70-130			
1,3,5-Trimethylbenzene	0.120	0.00200	"	0.100		120	70-130			
Benzene	0.0956	0.00200	"	0.100		95.6	70-130			
Ethylbenzene	0.110	0.00200	"	0.100		110	70-130			
Naphthalene	0.0946	0.0100	"	0.100		94.6	70-130			
Toluene	0.104	0.00200	"	0.100		104	70-130			
o-Xylene	0.106	0.00200	"	0.100		106	70-130			
m,p-Xylene	0.221	0.00400	"	0.200		110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		102	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2D1328 - EPA 5030 (soil)

Matrix Spike (B2D1328-MS1)	Source: Y204237-01		Prepared: 04/13/2022 Analyzed: 04/17/2022							
1,2,4-Trimethylbenzene	0.0420	0.00200	mg/kg	0.100	ND	42.0	70-130			QM-07
1,3,5-Trimethylbenzene	0.0419	0.00200	"	0.100	ND	41.9	70-130			QM-07
Benzene	0.0839	0.00200	"	0.100	ND	83.9	70-130			
Ethylbenzene	0.0463	0.00200	"	0.100	ND	46.3	70-130			QM-07
Naphthalene	0.0514	0.0100	"	0.100	ND	51.4	70-130			QM-07
Toluene	0.0816	0.00200	"	0.100	ND	81.6	70-130			
o-Xylene	0.0645	0.00200	"	0.100	ND	64.5	70-130			QM-07
m,p-Xylene	0.125	0.00400	"	0.200	ND	62.5	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		109	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.6	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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B2D1328 - EPA 5030 (soil)

Matrix Spike Dup (B2D1328-MSD1)	Source: Y204237-01			Prepared: 04/13/2022 Analyzed: 04/17/2022						
1,2,4-Trimethylbenzene	0.0673	0.00200	mg/kg	0.100	ND	67.3	70-130	46.4	20	QM-07
1,3,5-Trimethylbenzene	0.0681	0.00200	"	0.100	ND	68.1	70-130	47.6	20	QM-07
Benzene	0.0845	0.00200	"	0.100	ND	84.5	70-130	0.665	20	
Ethylbenzene	0.0765	0.00200	"	0.100	ND	76.5	70-130	49.1	20	QM-07
Naphthalene	0.0593	0.0100	"	0.100	ND	59.3	70-130	14.2	20	QM-07
Toluene	0.0819	0.00200	"	0.100	ND	81.9	70-130	0.392	20	
o-Xylene	0.0744	0.00200	"	0.100	ND	74.4	70-130	14.2	20	
m,p-Xylene	0.152	0.00400	"	0.200	ND	75.8	70-130	19.3	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		104	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.4	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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2D1405 - EPA 3550B										
Blank (B2D1405-BLK1)										
					Prepared: 04/14/2022 Analyzed: 04/25/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	24		"	24.9		94.8	50-150			

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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2D1405 - EPA 3550B

LCS (B2D1405-BS1)

Prepared: 04/14/2022 Analyzed: 04/25/2022

Diesel (C10-C28)	1220	50.0	mg/kg	1000		122	70-130			
Residual Range Organics (C28-C40)	1130	200	"	1000		113	70-130			
Surrogate: o-Terphenyl	51		"	49.8		102	50-150			

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2D1405 - EPA 3550B

Matrix Spike (B2D1405-MS1)	Source: Y204237-01			Prepared: 04/14/2022 Analyzed: 04/25/2022						
Diesel (C10-C28)	1230	50.0	mg/kg	1000	ND	123	70-130			
Residual Range Organics (C28-C40)	1110	200	"	1000	ND	111	70-130			
Surrogate: o-Terphenyl	48		"	49.8		97.1	50-150			

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2D1405 - EPA 3550B

Matrix Spike Dup (B2D1405-MSD1)	Source: Y204237-01			Prepared: 04/14/2022 Analyzed: 04/25/2022						
Diesel (C10-C28)	1230	50.0	mg/kg	1000	ND	123	70-130	0.626	35	
Residual Range Organics (C28-C40)	1150	200	"	1000	ND	115	70-130	3.17	35	
Surrogate: o-Terphenyl	48		"	49.8		97.0	50-150			

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Saturated Paste - 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 B2D1323 - NO PREP

Blank (B2D1323-BLK1)

Prepared: 04/13/2022 Analyzed: 04/14/2022

Specific Conductance (EC) 0.000800 0.00500 mmhos/cm

Duplicate (B2D1323-DUP1)

Source: Y204235-02

Prepared: 04/13/2022 Analyzed: 04/14/2022

Specific Conductance (EC) 1.44 0.00500 mmhos/cm 1.28 11.7 25

Batch B2D1327 - NO PREP

Duplicate (B2D1327-DUP1)

Source: Y204235-02

Prepared: 04/13/2022 Analyzed: 04/14/2022

pH 7.73 pH Units 7.65 1.04 25

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L611114 - 3550B

MS (L 97814-MS-L611114)	Source: 97814			Prepared: 04/15/2022 Analyzed: 04/18/2022						
Dibenz(a,h)anthracene	0.115	0.00307	mg/Kg	0.166	<0.00307	69.2	30-130			
Pyrene	0.106	0.00322	"	0.166	<0.00322	63.8	30-130			
Naphthalene	0.0902	0.00242	"	0.166	<0.00242	54.3	30-130			
Indeno(1,2,3-cd)pyrene	0.0977	0.00314	"	0.166	<0.00314	58.8	30-130			
Fluoranthene	0.106	0.00197	"	0.166	<0.00197	63.8	30-130			
Chrysene	0.11	0.00312	"	0.166	<0.00312	66.2	30-130			
2-Methylnaphthalene	0.0869	0.00323	"	0.166	<0.00323	52.3	30-130			
1-Methylnaphthalene	0.0934	0.00182	"	0.166	<0.00182	56.2	30-130			
Fluorene	0.102	0.00143	"	0.166	<0.00143	61.4	30-130			
Benzo(k)fluoranthene	0.101	0.00219	"	0.166	<0.00219	60.8	30-130			
Acenaphthene	0.0961	0.00152	"	0.166	<0.00152	57.8	30-130			
Anthracene	0.103	0.00167	"	0.166	<0.00167	62	30-130			
Benzo(a)anthracene	0.11	0.00247	"	0.166	<0.00247	66.2	30-130			
Benzo(a)pyrene	0.107	0.00234	"	0.166	<0.00234	64.4	30-130			
Benzo(b)fluoranthene	0.0858	0.00293	"	0.166	<0.00293	51.6	30-130			
Surrogate: Nitrobenzene-d5	50.6		"	0.332	180	50.6	29-110			
Surrogate: 2-Fluorobiphenyl	46.9		"	0.332	165	46.9	33-115			
Surrogate: 4-Terphenyl-d14	59.9		"	0.332	204	59.9	33-122			

LCS (LCS-L611114)	Prepared: 04/15/2022 Analyzed: 04/18/2022									
Benzo(a)pyrene	0.106	0.000468	mg/Kg	0.167		63.4	30-130			
Naphthalene	0.0879	0.000484	"	0.167		52.6	30-130			
Indeno(1,2,3-cd)pyrene	0.0993	0.000627	"	0.167		59.4	30-130			
Fluorene	0.0977	0.000286	"	0.167		58.5	30-130			
Fluoranthene	0.101	0.000394	"	0.167		60.4	30-130			
Dibenz(a,h)anthracene	0.112	0.000614	"	0.167		67	30-130			
Pyrene	0.104	0.000643	"	0.167		62.2	30-130			

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L611114 - 3550B

LCS (LCS-L611114)

Prepared: 04/15/2022 Analyzed: 04/18/2022

1-Methylnaphthalene	0.0859	0.000364	mg/Kg	0.167		51.4	30-130			
Benzo(b)fluoranthene	0.0876	0.000585	"	0.167		52.4	30-130			
Benzo(a)anthracene	0.105	0.000493	"	0.167		62.8	30-130			
Anthracene	0.0973	0.000334	"	0.167		58.2	30-130			
Acenaphthene	0.0914	0.000304	"	0.167		54.7	30-130			
2-Methylnaphthalene	0.0861	0.000645	"	0.167		51.5	30-130			
Benzo(k)fluoranthene	0.0949	0.000437	"	0.167		56.8	30-130			
Chrysene	0.103	0.000624	"	0.167		61.6	30-130			
Surrogate: Nitrobenzene-d5	57.3		"	0.333		57.3	29-110			
Surrogate: 4-Terphenyl-d14	70.2		"	0.333		70.2	33-122			
Surrogate: 2-Fluorobiphenyl	51.9		"	0.333		51.9	33-115			

LRB (LRB-L611114)

Prepared: 04/15/2022 Analyzed: 04/18/2022

Fluoranthene	ND	0.00067	mg/Kg				-			
Fluorene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	0.00104	0.00067	"				-			*
Pyrene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Benzo(k)fluoranthene	0.000665	0.00067	"				-			J
Benzo(b)fluoranthene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L611114 - 3550B

LRB (LRB-L611114)

Prepared: 04/15/2022 Analyzed: 04/18/2022

Benzo(a)pyrene	ND	0.00067	mg/Kg				-			
Surrogate: Nitrobenzene-d5	62.1		"	0.333	62.1		29-110			
Surrogate: 4-Terphenyl-d14	70.2		"	0.333	70.2		33-122			
Surrogate: 2-Fluorobiphenyl	54.9		"	0.333	54.9		33-115			

Origins Laboratory, Inc.



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

Martin C Eckert III
Project Number: [none]
Project: Noble - UPRR 39 Pan Am G #1

Notes and Definitions

U Sample is Non-Detect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

J Estimated Value. Analyte below reported quantitation limit.

B Analyte detected in associated method blank.

* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

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.



June 08, 2022

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - UPRR 39 Pan Am G #1

Project Number - [none]

Attached are your analytical results for Noble - UPRR 39 Pan Am G #1 received by Origins Laboratory, Inc. May 18, 2022. This project is associated with Origins project number Y205462-01.

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, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Noble - UPRR 39 Pan Am G #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL-SS-10@4'	Y205462-01	Soil	May 17, 2022 14:02	05/18/2022 09:30
FL-SS-11@4'	Y205462-02	Soil	May 17, 2022 15:48	05/18/2022 09:30
FL-SS-14@3'	Y205462-03	Soil	May 17, 2022 17:06	05/18/2022 09:30

Chain of Custody Modification Request

On 5/25/2022, Andrew Newberry from Eagle Environmental contacted Jennifer Pellegrini via email regarding Y205462 requesting that 915 metals and Cr VI be added to FL-SS-14@3'.

Requested modifications to the chain of custody were made by Jennifer Pellegrini on 5/25/2022.

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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

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

Sample Receipt Checklist

Origins Work Order: Y20546C Client: Eagle
 Client Project ID: UPRR 39 Pan Am G #1

Checklist Completed by: MS Shipped Via: HD
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Date/time completed: 5/18/22 1149 Airbill #: NA

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

Cooler Number/Temperature: 1 0-3 °C _____ °C _____ °C _____ °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 ⁽¹⁾ ?	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		X		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			X	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)			X	
Additional Comments (if any):				

⁽¹⁾if NO, then contact the client before proceeding with analysis and npte 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 5/19 1313

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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

FL-SS-10@4'

5/17/2022 2:02:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y205462-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.661		0.100	mg/L	1	B2E1910	05/19/2022	05/20/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2E1801	05/18/2022	05/19/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

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

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2E1802	05/18/2022	05/18/2022	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	121 %		70-130			"	"	"	
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Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

FL-SS-10@4'

5/17/2022 2:02:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y205462-01 (Soil)

GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	105 %		70-130			B2E18 02	05/18/2022	05/18/2022	
Surrogate: 4-Bromofluorobenzene	104 %		70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.51		0.499	meq/L	10	[CALC]	05/18/2022	05/19/2022	
Magnesium	0.922		0.823	"	"	"	"	"	
Sodium	6.73		0.435	"	"	"	"	"	

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L617550	05/23/2022	05/24/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"	
Anthracene	ND	0.000334	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	ND	0.000468	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.000437	0.00067	"	"	"	"	"	
Chrysene	ND	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	0.000996	0.000394	0.00067	"	"	"	"	"	

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, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

FL-SS-10@4'

5/17/2022 2:02:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y205462-01 (Soil)

PAH by 8270D SIM

Fluorene	ND	0.000286	0.00067	mg/Kg	1	L617550	05/23/2022	05/24/2022	
Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	
Pyrene	0.000847	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	67.5 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	86 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	60.5 %		29-110			"	"	"	

pH in Soil by 9045D

pH	8.42			pH Units	1	B2E1710	05/17/2022	05/19/2022	
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SAR by 20B Saturated Paste

SAR	6.11			SAR	1	B2E1813	05/18/2022	05/19/2022	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.21		0.00500	mmhos/cm	1	B2E1710	05/17/2022	05/19/2022	
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Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

FL-SS-11@4'
 5/17/2022 3:48:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y205462-02 (Soil)

Boron (DTPA Sorbitol)

Boron	0.704		0.100	mg/L	1	B2E1910	05/19/2022	05/20/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2E1801	05/18/2022	05/19/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl	114 %		50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2E1802	05/18/2022	05/18/2022	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	118 %		70-130			"	"	"	
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Eagle Environmental Consulting, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

FL-SS-11@4'
5/17/2022 3:48:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y205462-02 (Soil)

GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	103 %		70-130			B2E18 02	05/18/2022	05/18/2022	
Surrogate: 4-Bromofluorobenzene	106 %		70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.56		0.499	meq/L	10	[CALC]	05/18/2022	05/19/2022	
Magnesium	1.07		0.823	"	"	"	"	"	
Sodium	7.39		0.435	"	"	"	"	"	

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L617550	05/23/2022	05/24/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"	
Anthracene	0.000361	0.000334	0.00067	"	"	"	"	"	J
Benzo(a)anthracene	0.000913	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	0.000476	0.000468	0.00067	"	"	"	"	"	J
Benzo(b)fluoranthene	0.00295	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	0.000687	0.000437	0.00067	"	"	"	"	"	
Chrysene	0.0012	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	0.00384	0.000394	0.00067	"	"	"	"	"	
Fluorene	ND	0.000286	0.00067	"	"	"	"	"	

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

FL-SS-11@4'

5/17/2022 3:48:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y205462-02 (Soil)

PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	0.00186	0.000627	0.00067	mg/Kg	1	L617550	05/23/2022	05/24/2022	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	
Pyrene	0.00315	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	69.5 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	84.6 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	58.9 %		29-110			"	"	"	

pH in Soil by 9045D

pH	8.51			pH Units	1	B2E1710	05/17/2022	05/19/2022	
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SAR by 20B Saturated Paste

SAR	6.44			SAR	1	B2E1813	05/18/2022	05/19/2022	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.36		0.00500	mmhos/cm	1	B2E1710	05/17/2022	05/19/2022	
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Eagle Environmental Consulting, Inc.
 8000 W 44th Ave
 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

FL-SS-14@3'

5/17/2022 5:06:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y205462-03 (Soil)

Boron (DTPA Sorbitol)

Boron	ND		0.100	mg/L	1	B2E1910	05/19/2022	05/20/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B2E1801	05/18/2022	05/19/2022	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 98.1 % 50-150 " " "

GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND		0.00200	mg/kg	1	B2E1802	05/18/2022	05/18/2022	U
1,3,5-Trimethylbenzene	ND		0.00200	"	"	"	"	"	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 120 % 70-130 " " "

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

FL-SS-14@3'

5/17/2022 5:06:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y205462-03 (Soil)

GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	99.1 %		70-130			B2E18 02	05/18/2022	05/18/2022	
Surrogate: 4-Bromofluorobenzene	104 %		70-130			"	"	"	

Metals by Saturated Paste by EPA 6010

Calcium	1.40		0.499	meq/L	10	[CALC]	05/18/2022	05/19/2022	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	0.857		0.435	"	"	"	"	"	

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L617551	05/23/2022	05/24/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Acenaphthene	0.00687	0.000304	0.00067	"	"	"	"	"	
Anthracene	0.0224	0.000334	0.00067	"	"	"	"	"	
Benzo(a)anthracene	0.127	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	0.0313	0.000468	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	0.154	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	0.0497	0.000437	0.00067	"	"	"	"	"	
Chrysene	0.119	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	0.471	0.000394	0.00067	"	"	"	"	"	
Fluorene	0.00652	0.000286	0.00067	"	"	"	"	"	

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Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

FL-SS-14@3'

5/17/2022 5:06:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y205462-03 (Soil)

PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	0.135	0.000627	0.00067	mg/Kg	1	L617551	05/23/2022	05/24/2022	
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	
Pyrene	0.361	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	68.9 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	99.7 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	56.9 %		29-110			"	"	"	

pH in Soil by 9045D

pH	8.18			pH Units	1	B2E1710	05/17/2022	05/19/2022	
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SAR by 20B Saturated Paste

SAR	0.901			SAR	1	B2E1813	05/18/2022	05/19/2022	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.346		0.00500	mmhos/cm	1	B2E1710	05/17/2022	05/19/2022	
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Total Metals by 6020B

Arsenic	1.05	0.0855	0.25	mg/Kg	5	L619313	06/01/2022	06/03/2022	
Barium	35.2	0.042	0.25	"	"	"	"	"	

Origins Laboratory, Inc.



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 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

FL-SS-14@3'

5/17/2022 5:06:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, LLC.
Y205462-03 (Soil)

Total Metals by 6020B

Cadmium	0.08	0.0259	0.25	mg/Kg	5	L619313	06/01/2022	06/03/2022	J
Copper	3.42	0.0806	0.25	"	"	"	"	"	
Lead	3.62	0.031	0.25	"	"	"	"	"	
Nickel	3.35	0.0633	0.25	"	"	"	"	"	
Selenium	0.36	0.103	0.25	"	"	"	"	"	
Silver	0.0152	0.0067	0.25	"	"	"	"	"	J
Zinc	15.9	0.534	2.5	"	"	"	"	"	

Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L619726	05/17/2022	06/03/2022	
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 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2E1801 - EPA 3580										
Blank (B2E1801-BLK1)										
					Prepared: 05/18/2022 Analyzed: 05/19/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	25		"	24.9		99.1	50-150			

Origins Laboratory, Inc.



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 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2E1801 - EPA 3580

LCS (B2E1801-BS1)

Prepared: 05/18/2022 Analyzed: 05/19/2022

Diesel (C10-C28)	987	50.0	mg/kg	1000		98.7	70-130			
Residual Range Organics (C28-C40)	1070	200	"	1000		107	70-130			
Surrogate: o-Terphenyl	59		"	49.8		119	50-150			

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2E1801 - EPA 3580

Matrix Spike (B2E1801-MS1)	Source: Y205434-01			Prepared: 05/18/2022 Analyzed: 05/19/2022						
Diesel (C10-C28)	977	50.0	mg/kg	1000	ND	97.7	70-130			
Residual Range Organics (C28-C40)	1040	200	"	1000	ND	104	70-130			
Surrogate: o-Terphenyl	47		"	49.8		93.9	50-150			

Origins Laboratory, Inc.



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 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2E1801 - EPA 3580

Matrix Spike Dup (B2E1801-MSD1)	Source: Y205434-01		Prepared: 05/18/2022 Analyzed: 05/19/2022							
Diesel (C10-C28)	1020	50.0	mg/kg	1000	ND	102	70-130	4.63	35	
Residual Range Organics (C28-C40)	1030	200	"	1000	ND	103	70-130	0.462	35	
Surrogate: o-Terphenyl	47		"	49.8		93.7	50-150			

Origins Laboratory, Inc.



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Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2E1802 - EPA 5030 (soil)

Blank (B2E1802-BLK1)

Prepared: 05/18/2022 Analyzed: 05/18/2022

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.0100	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125	114		70-130			
Surrogate: Toluene-d8	0.13		"	0.125	104		70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125	100		70-130			

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2E1802 - EPA 5030 (soil)

LCS (B2E1802-BS1)

Prepared: 05/18/2022 Analyzed: 05/18/2022

1,2,4-Trimethylbenzene	0.0992	0.00200	mg/kg	0.100		99.2	70-130			
1,3,5-Trimethylbenzene	0.101	0.00200	"	0.100		101	70-130			
Benzene	0.101	0.00200	"	0.100		101	70-130			
Ethylbenzene	0.100	0.00200	"	0.100		100	70-130			
Naphthalene	0.101	0.0100	"	0.100		101	70-130			
Toluene	0.110	0.00200	"	0.100		110	70-130			
o-Xylene	0.101	0.00200	"	0.100		101	70-130			
m,p-Xylene	0.198	0.00400	"	0.200		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		114	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2E1802 - EPA 5030 (soil)

Matrix Spike (B2E1802-MS1)	Source: Y205446-01			Prepared: 05/18/2022 Analyzed: 05/18/2022						
1,2,4-Trimethylbenzene	0.101	0.00200	mg/kg	0.100	ND	101	70-130			
1,3,5-Trimethylbenzene	0.103	0.00200	"	0.100	ND	103	70-130			
Benzene	0.0989	0.00200	"	0.100	ND	98.9	70-130			
Ethylbenzene	0.106	0.00200	"	0.100	ND	106	70-130			
Naphthalene	0.0981	0.0100	"	0.100	ND	98.1	70-130			
Toluene	0.111	0.00200	"	0.100	ND	111	70-130			
o-Xylene	0.105	0.00200	"	0.100	ND	105	70-130			
m,p-Xylene	0.209	0.00400	"	0.200	ND	105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		115	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		104	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		105	70-130			

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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2E1802 - EPA 5030 (soil)

Matrix Spike Dup (B2E1802-MSD1)	Source: Y205446-01			Prepared: 05/18/2022 Analyzed: 05/18/2022						
1,2,4-Trimethylbenzene	0.0947	0.00200	mg/kg	0.100	ND	94.7	70-130	6.57	20	
1,3,5-Trimethylbenzene	0.0967	0.00200	"	0.100	ND	96.7	70-130	6.41	20	
Benzene	0.0983	0.00200	"	0.100	ND	98.3	70-130	0.669	20	
Ethylbenzene	0.0933	0.00200	"	0.100	ND	93.3	70-130	12.8	20	
Naphthalene	0.0955	0.0100	"	0.100	ND	95.5	70-130	2.64	20	
Toluene	0.106	0.00200	"	0.100	ND	106	70-130	4.31	20	
o-Xylene	0.0961	0.00200	"	0.100	ND	96.1	70-130	8.53	20	
m,p-Xylene	0.186	0.00400	"	0.200	ND	92.8	70-130	12.1	20	
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		113	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.7	70-130			

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Saturated Paste - 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 B2E1710 - NO PREP

Blank (B2E1710-BLK1)

Prepared: 05/17/2022 Analyzed: 05/19/2022

Specific Conductance (EC)	0.00100	0.00500	mmhos/cm
pH	0.00		pH Units

Duplicate (B2E1710-DUP1)

Source: Y205046-03

Prepared: 05/17/2022 Analyzed: 05/19/2022

pH	8.44		pH Units	8.46	0.237	25
Specific Conductance (EC)	0.275	0.00500	mmhos/cm	0.299	8.28	25

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Total Metals by 6020B - Quality Control
Waypoint Analytical, LLC.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L619313 - 3050B

MSD (L 99705-MSD-L619313)		Source: 99705			Prepared: 06/01/2022 Analyzed: 06/03/2022					
Nickel	4.12	0.0633	mg/Kg	2.44	1.87	92	75-125	2.4	80	
Copper	4.32	0.0806	"	2.44	2.32	82	75-125	1.6	80	
Zinc	31.8	0.534	"	24.4	9.72	90	75-125	3.8	80	
Selenium	4.55	0.103	"	4.89	0.25	88	75-125	5.4	80	
Lead	5.58	0.031	"	2.44	2.48	127	75-125	17.7	80	*
Barium	68.9	0.171	"	4.89	147	NR	75-125	10.9	80	*
Silver	0.475	0.0067	"	0.489	<0.0067	97	75-125	6.5	80	
Cadmium	0.478	0.0259	"	0.489	0.0378	90	75-125	3.8	80	
Arsenic	3.32	0.0855	"	2.44	1.11	90	75-125	3.9	80	

MS (L 99705-MS-L619313)		Source: 99705			Prepared: 06/01/2022 Analyzed: 06/03/2022					
Cadmium	0.46	0.0259	mg/Kg	0.484	0.0378	87	75-125			
Silver	0.445	0.0067	"	0.484	<0.0067	92	75-125			
Selenium	4.31	0.103	"	4.84	0.25	84	75-125			
Nickel	4.02	0.0633	"	2.42	1.87	89	75-125			
Copper	4.39	0.0806	"	2.42	2.32	86	75-125			
Zinc	30.6	0.534	"	24.2	9.72	86	75-125			
Barium	76.9	0.171	"	4.84	147	NR	75-125			*
Arsenic	3.19	0.0855	"	2.42	1.11	86	75-125			
Lead	4.67	0.031	"	2.42	2.48	91	75-125			

LCS (LCS-L619313)		Prepared: 06/01/2022 Analyzed: 06/03/2022								
Copper	2.26	0.0806	mg/Kg	2.5		90	80-120			
Selenium	4.6	0.103	"	5		92	80-120			
Silver	0.473	0.0067	"	0.5		95	80-120			
Nickel	2.37	0.0633	"	2.5		95	80-120			
Zinc	23	0.534	"	25		92	80-120			

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Total Metals by 6020B - Quality Control
Waypoint Analytical, LLC.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L619313 - 3050B

LCS (LCS-L619313)

Prepared: 06/01/2022 Analyzed: 06/03/2022

Lead	2.29	0.031	mg/Kg	2.5		92	80-120			
Cadmium	0.442	0.0259	"	0.5		88	80-120			
Barium	4.82	0.042	"	5		96	80-120			
Arsenic	2.39	0.0855	"	2.5		96	80-120			

LRB (LRB-L619313)

Prepared: 06/01/2022 Analyzed: 06/03/2022

Lead	0.0483	0.25	mg/Kg				-			J
Zinc	ND	2.5	"				-			
Silver	ND	0.25	"				-			
Nickel	ND	0.25	"				-			
Arsenic	ND	0.25	"				-			
Barium	ND	0.25	"				-			
Cadmium	ND	0.25	"				-			
Copper	ND	0.25	"				-			
Selenium	ND	0.25	"				-			

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Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L619726 -										
DUP (L 95064-DUP)		Source: Y205462-03			Prepared: Analyzed: 06/03/2022					
Chromium, Hexavalent	ND	0.244	mg/Kg		<0.500		-	0	20	
MS (L 95064-MS)		Source: Y205462-03			Prepared: Analyzed: 06/03/2022					
Chromium, Hexavalent	6.82	0.251	mg/Kg	8.25	<0.251	83	75-125			
LCS (LCS)		Prepared: Analyzed: 06/03/2022								
Chromium, Hexavalent	6.5	0.244	mg/Kg	8		81	75-125			
LRB (LRB)		Prepared: Analyzed: 06/03/2022								
Chromium, Hexavalent	ND	0.525	mg/Kg				-			

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Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L617550 - 3550B

MSD (L 93422-MSD-L617550)		Source: 93422			Prepared: 05/23/2022 Analyzed: 05/24/2022					
Benzo(b)fluoranthene	0.113	0.000585	mg/Kg	0.166	<0.000585	68	30-130	0.8	30	
Pyrene	0.135	0.000643	"	0.166	<0.000643	81.3	30-130	0	30	
Naphthalene	0.0971	0.000484	"	0.166	<0.000484	58.4	30-130	0.4	30	
Indeno(1,2,3-cd)pyrene	0.173	0.000627	"	0.166	<0.000627	104	30-130	21.7	30	
Fluorene	0.113	0.000286	"	0.166	<0.000286	68	30-130	0.8	30	
Fluoranthene	0.136	0.000394	"	0.166	<0.000394	81.9	30-130	0.7	30	
Dibenz(a,h)anthracene	0.149	0.000614	"	0.166	<0.000614	89.7	30-130	12.8	30	
Benzo(k)fluoranthene	0.107	0.000437	"	0.166	<0.000437	64.4	30-130	8.5	30	
Benzo(a)pyrene	0.118	0.000468	"	0.166	<0.000468	71	30-130	1.7	30	
Benzo(a)anthracene	0.118	0.000493	"	0.166	<0.000493	71	30-130	4.3	30	
Anthracene	0.127	0.000334	"	0.166	<0.000334	76.5	30-130	0	30	
Acenaphthene	0.118	0.000304	"	0.166	<0.000304	71	30-130	0.8	30	
2-Methylnaphthalene	0.0916	0.000645	"	0.166	<0.000645	55.1	30-130	0.4	30	
1-Methylnaphthalene	0.0994	0.000364	"	0.166	<0.000364	59.8	30-130	0	30	
Chrysene	0.103	0.000624	"	0.166	<0.000624	62	30-130	3.8	30	
Surrogate: Nitrobenzene-d5	57.5		"	0.332	175	57.5	29-110			
Surrogate: 4-Terphenyl-d14	88.2		"	0.332	270	88.2	33-122			
Surrogate: 2-Fluorobiphenyl	62.6		"	0.332	199	62.6	33-115			

MS (L 93422-MS-L617550)		Source: 93422			Prepared: 05/23/2022 Analyzed: 05/24/2022					
1-Methylnaphthalene	0.0994	0.000364	mg/Kg	0.166	<0.000364	59.8	30-130			
Acenaphthene	0.119	0.000304	"	0.166	<0.000304	71.6	30-130			
Indeno(1,2,3-cd)pyrene	0.139	0.000627	"	0.166	<0.000627	83.7	30-130			
2-Methylnaphthalene	0.0912	0.000645	"	0.166	<0.000645	54.9	30-130			
Pyrene	0.135	0.000643	"	0.166	<0.000643	81.3	30-130			
Naphthalene	0.0975	0.000484	"	0.166	<0.000484	58.7	30-130			
Fluorene	0.114	0.000286	"	0.166	<0.000286	68.6	30-130			

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Eagle Environmental Consulting, Inc.
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 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

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Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L617550 - 3550B

MS (L 93422-MS-L617550)	Source: 93422		Prepared: 05/23/2022 Analyzed: 05/24/2022							
Fluoranthene	0.137	0.000394	mg/Kg	0.166	<0.000394	82.5	30-130			
Dibenz(a,h)anthracene	0.131	0.000614	"	0.166	<0.000614	78.9	30-130			
Chrysene	0.107	0.000624	"	0.166	<0.000624	64.4	30-130			
Benzo(k)fluoranthene	0.0982	0.000437	"	0.166	<0.000437	59.1	30-130			
Benzo(b)fluoranthene	0.114	0.000585	"	0.166	<0.000585	68.6	30-130			
Benzo(a)pyrene	0.116	0.000468	"	0.166	<0.000468	69.8	30-130			
Benzo(a)anthracene	0.113	0.000493	"	0.166	<0.000493	68	30-130			
Anthracene	0.127	0.000334	"	0.166	<0.000334	76.5	30-130			
Surrogate: 4-Terphenyl-d14	89.1		"	0.331	270	89.1	33-122			
Surrogate: 2-Fluorobiphenyl	63.1		"	0.331	199	63.1	33-115			
Surrogate: Nitrobenzene-d5	58		"	0.331	175	58	29-110			

LCS (LCS-L617550)	Prepared: 05/23/2022 Analyzed: 05/24/2022									
Pyrene	0.149	0.000643	mg/Kg	0.167		89.2	30-130			
Benzo(a)pyrene	0.128	0.000468	"	0.167		76.6	30-130			
2-Methylnaphthalene	0.105	0.000645	"	0.167		62.8	30-130			
Acenaphthene	0.134	0.000304	"	0.167		80.2	30-130			
Anthracene	0.144	0.000334	"	0.167		86.2	30-130			
Benzo(a)anthracene	0.131	0.000493	"	0.167		78.4	30-130			
Benzo(b)fluoranthene	0.122	0.000585	"	0.167		73	30-130			
Benzo(k)fluoranthene	0.118	0.000437	"	0.167		70.6	30-130			
Dibenz(a,h)anthracene	0.152	0.000614	"	0.167		91	30-130			
Fluorene	0.129	0.000286	"	0.167		77.2	30-130			
Indeno(1,2,3-cd)pyrene	0.168	0.000627	"	0.167		101	30-130			
1-Methylnaphthalene	0.114	0.000364	"	0.167		68.2	30-130			
Chrysene	0.111	0.000624	"	0.167		66.4	30-130			
Naphthalene	0.111	0.000484	"	0.167		66.4	30-130			

Origins Laboratory, Inc.



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 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L617550 - 3550B

LCS (LCS-L617550)

Prepared: 05/23/2022 Analyzed: 05/24/2022

Fluoranthene	0.151	0.000394	mg/Kg	0.167		90.4	30-130			
Surrogate: 2-Fluorobiphenyl	80.7		"	0.333		80.7	33-115			
Surrogate: 4-Terphenyl-d14	106		"	0.333		106	33-122			
Surrogate: Nitrobenzene-d5	67.2		"	0.333		67.2	29-110			

LRB (LRB-L617550)

Prepared: 05/23/2022 Analyzed: 05/24/2022

Dibenz(a,h)anthracene	ND	0.00067	mg/Kg				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	66.3		"	0.333		66.3	29-110			
Surrogate: 2-Fluorobiphenyl	84		"	0.333		84	33-115			
Surrogate: 4-Terphenyl-d14	93.9		"	0.333		93.9	33-122			

Batch L617551 - 3550B

MSD (L 95740-MSD-L617551)

Source: 95740

Prepared: 05/23/2022 Analyzed: 05/24/2022

Origins Laboratory, Inc.



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Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L617551 - 3550B

MSD (L 95740-MSD-L617551)		Source: 95740			Prepared: 05/23/2022 Analyzed: 05/24/2022					
Benzo(a)anthracene	0.11	0.000493	mg/Kg	0.163	<0.000493	67.4	30-130	16.6	30	
Anthracene	0.117	0.000334	"	0.163	<0.000334	71.7	30-130	14.2	30	
Acenaphthene	0.113	0.000304	"	0.163	<0.000304	69.3	30-130	9.2	30	
2-Methylnaphthalene	0.0874	0.000645	"	0.163	<0.000645	53.6	30-130	9.6	30	
1-Methylnaphthalene	0.0955	0.000364	"	0.163	<0.000364	58.5	30-130	9.4	30	
Benzo(b)fluoranthene	0.0947	0.000585	"	0.163	<0.000585	58	30-130	17.6	30	
Pyrene	0.124	0.000643	"	0.163	<0.000643	76	30-130	14.2	30	
Benzo(k)fluoranthene	0.0872	0.000437	"	0.163	<0.000437	53.4	30-130	20.3	30	
Chrysene	0.0981	0.000624	"	0.163	<0.000624	60.1	30-130	14.9	30	
Dibenz(a,h)anthracene	0.104	0.000614	"	0.163	<0.000614	63.8	30-130	34.2	30	
Fluoranthene	0.128	0.000394	"	0.163	0.000736	78	30-130	13.1	30	
Fluorene	0.108	0.000286	"	0.163	<0.000286	66.2	30-130	10.5	30	
Indeno(1,2,3-cd)pyrene	0.0972	0.000627	"	0.163	<0.000627	59.6	30-130	48.2	30	
Naphthalene	0.0916	0.000484	"	0.163	<0.000484	56.1	30-130	11.7	30	
Benzo(a)pyrene	0.109	0.000468	"	0.163	<0.000468	66.8	30-130	15.2	30	
Surrogate: 4-Terphenyl-d14	82.5		"	0.326	269	82.5	33-122			
Surrogate: 2-Fluorobiphenyl	62.8		"	0.326	213	62.8	33-115			
Surrogate: Nitrobenzene-d5	54.6		"	0.326	223	54.6	29-110			

MS (L 95740-MS-L617551)		Source: 95740			Prepared: 05/23/2022 Analyzed: 05/24/2022					
Benzo(a)anthracene	0.13	0.000493	mg/Kg	0.164	<0.000493	79.2	30-130			
Anthracene	0.135	0.000334	"	0.164	<0.000334	82.3	30-130			
Acenaphthene	0.124	0.000304	"	0.164	<0.000304	75.6	30-130			
2-Methylnaphthalene	0.0963	0.000645	"	0.164	<0.000645	58.7	30-130			
Benzo(a)pyrene	0.127	0.000468	"	0.164	<0.000468	77.4	30-130			
1-Methylnaphthalene	0.105	0.000364	"	0.164	<0.000364	64	30-130			
Fluorene	0.12	0.000286	"	0.164	<0.000286	73.1	30-130			

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Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L617551 - 3550B

MS (L 95740-MS-L617551)	Source: 95740		Prepared: 05/23/2022 Analyzed: 05/24/2022							
Benzo(b)fluoranthene	0.113	0.000585	mg/Kg	0.164	<0.000585	68.9	30-130			
Benzo(k)fluoranthene	0.107	0.000437	"	0.164	<0.000437	65.2	30-130			
Chrysene	0.114	0.000624	"	0.164	<0.000624	69.5	30-130			
Fluoranthene	0.146	0.000394	"	0.164	0.000736	88.5	30-130			
Indeno(1,2,3-cd)pyrene	0.159	0.000627	"	0.164	<0.000627	96.9	30-130			
Naphthalene	0.103	0.000484	"	0.164	<0.000484	62.8	30-130			
Pyrene	0.143	0.000643	"	0.164	<0.000643	87.1	30-130			
Dibenz(a,h)anthracene	0.147	0.000614	"	0.164	<0.000614	89.6	30-130			
Surrogate: 4-Terphenyl-d14	97.5		"	0.328	269	97.5	33-122			
Surrogate: 2-Fluorobiphenyl	70.1		"	0.328	213	70.1	33-115			
Surrogate: Nitrobenzene-d5	64.6		"	0.328	223	64.6	29-110			

LCS (LCS-L617551)	Prepared: 05/23/2022 Analyzed: 05/24/2022									
Benzo(a)pyrene	0.115	0.000468	mg/Kg	0.167		68.8	30-130			
Benzo(k)fluoranthene	0.105	0.000437	"	0.167		62.8	30-130			
Pyrene	0.139	0.000643	"	0.167		83.2	30-130			
1-Methylnaphthalene	0.104	0.000364	"	0.167		62.2	30-130			
2-Methylnaphthalene	0.0954	0.000645	"	0.167		57.1	30-130			
Acenaphthene	0.125	0.000304	"	0.167		74.8	30-130			
Anthracene	0.13	0.000334	"	0.167		77.8	30-130			
Benzo(a)anthracene	0.117	0.000493	"	0.167		70	30-130			
Naphthalene	0.1	0.000484	"	0.167		59.8	30-130			
Benzo(b)fluoranthene	0.0999	0.000585	"	0.167		59.8	30-130			
Indeno(1,2,3-cd)pyrene	0.115	0.000627	"	0.167		68.8	30-130			
Fluorene	0.12	0.000286	"	0.167		71.8	30-130			
Fluoranthene	0.14	0.000394	"	0.167		83.8	30-130			
Dibenz(a,h)anthracene	0.107	0.000614	"	0.167		64	30-130			

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Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L617551 - 3550B

LCS (LCS-L617551)

Prepared: 05/23/2022 Analyzed: 05/24/2022

Chrysene	0.111	0.000624	mg/Kg	0.167		66.4	30-130			
Surrogate: 4-Terphenyl-d14	99.6		"	0.333		99.6	33-122			
Surrogate: 2-Fluorobiphenyl	79.8		"	0.333		79.8	33-115			
Surrogate: Nitrobenzene-d5	61.8		"	0.333		61.8	29-110			

LRB (LRB-L617551)

Prepared: 05/23/2022 Analyzed: 05/24/2022

Benzo(k)fluoranthene	ND	0.00067	mg/Kg				-			
Pyrene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	57		"	0.333		57	29-110			
Surrogate: 4-Terphenyl-d14	81.3		"	0.333		81.3	33-122			
Surrogate: 2-Fluorobiphenyl	66.9		"	0.333		66.9	33-115			

Origins Laboratory, Inc.



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

Martin C Eckert III
Project Number: [none]
Project: Noble - UPRR 39 Pan Am G #1

Notes and Definitions

- U Sample is Non-Detect.
- J Estimated Value. Analyte below reported quantitation limit.
- * QC Failure
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



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July 05, 2022

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - UPRR 39 Pan Am G #1

Project Number - [none]

Attached are your analytical results for Noble - UPRR 39 Pan Am G #1 received by Origins Laboratory, Inc. June 24, 2022. This project is associated with Origins project number Y206632-01.

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, Inc.
8000 W 44th Ave
Wheat Ridge CO 80033

Martin C Eckert III
Project Number: [none]
Project: Noble - UPRR 39 Pan Am G #1

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Background-01@4'	Y206632-01	Soil	May 17, 2022 14:21	06/24/2022 14:18

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Origins Laboratory

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

Origins Work Order: Y2506032 Sample Receipt Checklist

Client: Eagle/Noble
 Client Project ID: UPRR 39

Checklist Completed by: JB
 Date/time completed: 6-28-12

Shipped Via: HD
 (USPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: N/A

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


Cooler Number/Temperature: 145 °C / _____ °C / _____ °C (Describe)

Thermometer ID: T063

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

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

Reviewed by (Project Manager) JB Date/Time Reviewed 6/28/12

Origins Laboratory, Inc.


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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Background-01@4'
5/17/2022 2:21:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y206632-01 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	0.954	0.499	meq/L	10	[CALC]	KAP	06/28/2022	06/29/2022
Magnesium	ND	0.823	"	"	"	KAP	"	"
Sodium	5.19	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.33		pH Units	1	B2F2812	ACC	06/28/2022	06/29/2022
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SAR by 20B Saturated Paste

SAR	5.97		SAR	1	B2F2807	KAP	06/28/2022	06/29/2022
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Table 915 metals by EPA 6020B

Arsenic	2.31	0.00100	mg/kg	1	B2F2724	CIH	06/27/2022	06/27/2022
Selenium	0.0778	0.00100	"	"	"	CIH	"	"

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Metals by SM 3500 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 B2F2724 - Default Prep Metals

Blank (B2F2724-BLK1)

Prepared: 06/27/2022 Analyzed: 06/27/2022

Arsenic	ND	0.00100	mg/kg							
Barium	ND	0.0100	"							
Cadmium	ND	0.00100	"							
Copper	ND	0.0100	"							
Lead	ND	0.00100	"							
Nickel	ND	0.00100	"							
Selenium	ND	0.00100	"							
Silver	ND	0.00100	"							
Zinc	ND	0.0100	"							

LCS (B2F2724-BS1)

Prepared: 06/27/2022 Analyzed: 06/27/2022

Arsenic	0.0472	0.00100	mg/kg	0.0500		94.3	80-120			
Barium	4.92	0.0100	"	5.00		98.5	80-120			
Cadmium	0.0503	0.00100	"	0.0500		101	80-120			
Copper	0.472	0.0100	"	0.500		94.5	80-120			
Lead	0.0493	0.00100	"	0.0500		98.6	80-120			
Nickel	0.0463	0.00100	"	0.0500		92.6	80-120			
Selenium	0.0490	0.00100	"	0.0500		97.9	80-120			
Silver	0.0516	0.00100	"	0.0500		103	80-120			
Zinc	0.475	0.0100	"	0.500		95.1	80-120			

Matrix Spike (B2F2724-MS1)

Source: Y206630-10

Prepared: 06/27/2022 Analyzed: 06/27/2022

Arsenic	6.44	0.00100	mg/kg	5.21	5.56	16.9	75-125			QM-07
Barium	565	0.0100	"	521	64.6	96.0	75-125			
Cadmium	5.03	0.00100	"	5.21	0.0879	95.0	75-125			
Copper	54.1	0.0100	"	52.1	5.40	93.5	75-125			
Lead	7.82	0.00100	"	5.21	3.86	76.0	75-125			

Origins Laboratory, Inc.



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

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Metals by SM 3500 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 B2F2724 - Default Prep Metals

Matrix Spike (B2F2724-MS1)		Source: Y206630-10			Prepared: 06/27/2022 Analyzed: 06/27/2022					
Nickel	7.79	0.00100	mg/kg	5.21	4.78	57.9	75-125			QM-07
Selenium	5.53	0.00100	"	5.21	0.166	103	75-125			
Silver	5.38	0.00100	"	5.21	0.0168	103	75-125			
Zinc	47.6	0.0100	"	52.1	13.2	66.0	75-125			QM-07
Matrix Spike Dup (B2F2724-MSD1)		Source: Y206630-10			Prepared: 06/27/2022 Analyzed: 06/27/2022					
Arsenic	6.00	0.00100	mg/kg	4.84	5.56	9.23	75-125	6.96	20	QM-07
Barium	537	0.0100	"	484	64.6	97.6	75-125	4.96	20	
Cadmium	4.77	0.00100	"	4.84	0.0879	96.6	75-125	5.44	20	
Copper	51.3	0.0100	"	48.4	5.40	94.7	75-125	5.36	20	
Lead	7.58	0.00100	"	4.84	3.86	76.8	75-125	3.10	20	
Nickel	7.86	0.00100	"	4.84	4.78	63.7	75-125	0.919	20	QM-07
Selenium	4.72	0.00100	"	4.84	0.166	94.1	75-125	15.8	20	
Silver	4.94	0.00100	"	4.84	0.0168	102	75-125	8.42	20	
Zinc	47.2	0.0100	"	48.4	13.2	70.1	75-125	0.907	20	QM-07

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 Wheat Ridge CO 80033

Martin C Eckert III
 Project Number: [none]
 Project: Noble - UPRR 39 Pan Am G #1

Saturated Paste - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2F2812 - NO PREP										
Blank (B2F2812-BLK1)					Prepared: 06/28/2022 Analyzed: 06/29/2022					
pH	0.00		pH Units							
Duplicate (B2F2812-DUP1)					Source: Y206630-07 Prepared: 06/28/2022 Analyzed: 06/29/2022					
pH	8.10		pH Units		8.13			0.370	25	

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

Martin C Eckert III
Project Number: [none]
Project: Noble - UPRR 39 Pan Am G #1

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.



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