

# Tank Battery Closure Checklist

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

Additional attachments (optional):		Pit Closure		Wellhead Closure	9-8: 11-22-21	Flowline Closure	9-8: 11/17/22	Partially Buried Vault Closure	1-12-22
Site Name & COGCC Facility Number: 446973		Date: 1-12-22						Remediation Project #: 21054	
Associated Wells: LDS A *7-8, 14-8, 20-8		Age of Site: years						Number of Photos Attached: 4	
Location: (GPS coordinates of southeaster berm) 40.239769 / -104.565850								Estimated Facility Size (acres):	
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)									
Overall good condition									
USCS Soil Type: SC					Estimated Depth to Groundwater: ~10-20'				
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)									
None observed									
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)									
None observed									
<b>Tanks</b>									
Tank Contents	Crude								
Size (barrels)	350								
Age	years								
Construction	Steel								
Tank type	AST								
Visual Integrity	Good								
Condition of tank	Good								
PID Readings									
Soil impacts present at valves or hatches?	None observed								
PID Readings	7.6								
Sample taken? Location/ Sample ID#	TB-SS-01								
Photo Number(s)	See photology								
Other observations regarding tanks:									
<b>Separators</b>									
Separator size									
Vertical or	horizontal								
Age	years								
Soil impacts	None observed								
PID Readings	17.7	1.6							
Sample taken? Location/ Sample ID#	TB-SS-02 (FL)	TB-SS-03 (DL)							
Photo Number(s)	See photology								
Other observations regarding separators									
Flowline (FL) + dump line (DL) connections assessed. Flowline to Sep. connection (TB-SS-02) lab analyzed									
<b>Third Party Equipment</b>									
Type	Meter House								
Age	years								

Third Party									
Removal Date	TBD - Still Onsite								
Sample taken?	TB-SS-05		TB-SS-06						
PID Readings	1.4		2.9						
Photo Number(s)	See photo log								
<b>Other Facility Equipment</b>									
Equipment type	VOC / Flare								
Equipment Age	Good - for crew								
Soil impacts	N/A								
PID Readings	1.2								
Sample taken?	TB-SS-04								
Photo Number(s)	See photo log								
Other observations regarding other facility or third party equipment:									
<b>Summary</b>									
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:					Total number of samples collected:				
6					6				
Highest PID Reading:					Total number of samples submitted to lab for analysis:				
17.7					2				
If more than 10 cubic yards of impacted soil were observed:									
Vertical extent:					Estimated spill volume:				
Lateral extent:					Volume of soil removed:				
N/A									
Is additional investigation required?									
No									
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?					Volume of groundwater removed prior to sampling:				
Yes      No									
Free product observed?					Volume of groundwater removed post sampling:				
Yes      No									
Total number of samples collected:					Total Volume of groundwater removed:				
Total number of samples submitted to lab for analysis:									

# Buried or Partially Buried Vessel Closure Checklist

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

Additional Attachments (optional):	Pit Closure	Wellhead Closure	Flowline Closure	Tank Battery Closure
		9-8: 11-22-21	9-8: 1/17/22	1-12-22
Site Name & COGCC Facility Number: 446973		Date: 1-12-22		Remediation Project #: 21054
Associated Wells: LDS A 9-8, 16-8, 20-8		Age of Site: years		Number of Photos Attached: 1
Location: (GPS coordinates of vault or southeastern tank berm for multiple)				Estimated Facility Size (acres):
40.239803 / -104.565958				

General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)

Overall good condition

USCS Soil Type: SC

Estimated Depth to Groundwater: ~10-20'

Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)

None observed

Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)

None observed

Buried or Partially Buried Vessels									
Tank Contents	Produced Water								
Size (barrels)	60								
Age	years								
Construction	Concrete								
Visual Integrity	Good								
Condition of tank	Good								
PID Readings									
Condition of	Good								
PID Readings	3.8	5.3	2.4	3.2	13.8				
Sample taken? Location/Sample ID	WV-SS-01	WV-SS-02	WV-SS-03	WV-SS-04	WV-FS-01				
Photo Number(s)	See photolog								

Other observations regarding partially buried vessels:

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
Highest PID Reading:	13.8
Total number of samples collected:	5
Total number of samples submitted to lab for analysis:	2
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? N/A	
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:
Seen 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:	



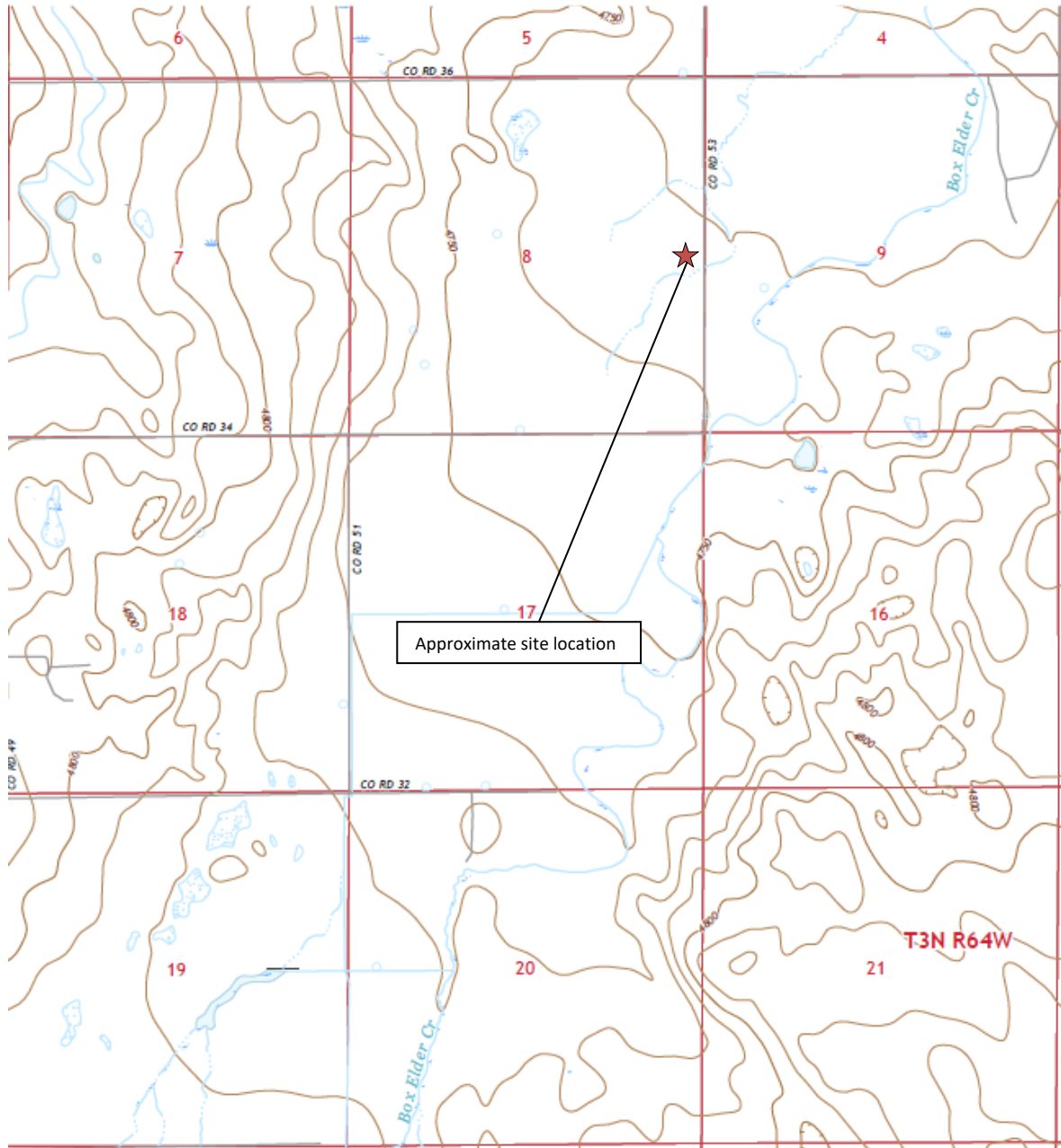
## **FIGURES**

**Figure 1: Topographic Site Location Map**

**Figure 2: Aerial Site Location Map**

**Figure 3: Soil Analytical Map**

**Figure 4: Polycyclic Aromatic Hydrocarbons Map**



**Topographic Site Location Map**  
 LDS A #9-8, 16-8, 20-8 Tank Battery  
 Closure Assessment  
 40.239809 / -104.566252  
 NE¼ SE¼ SEC.8 T3N R64W 6PM  
 Weld County, Colorado  
 Location ID 446972  
 Remediation # 21054



**EAGLE**  
 ENVIRONMENTAL  
 CONSULTING, INC.

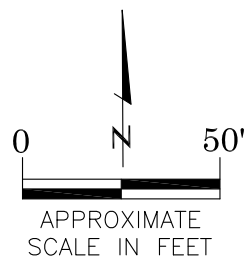
Source: USGS 7.5 Minute Topographic  
 Map, Klug Ranch, CO Quadrangle 2022

**Figure 1**



# LEGEND

- APPROXIMATE TANK BATTERY BOUNDARIES (DECOMMISSIONED)
- ASSOCIATED BURIED VAULT (REMOVED)
- ASSOCIATED SEPARATOR CONTAINMENT AREA (DECOMMISSIONED)



AERIAL SITE LOCATION MAP  
 LDS A #9-8, 16-8, 20-8 TANK BATTERY  
 CLOSURE ASSESSMENT  
 40.239809 / -104.566252  
 NE¼ SE¼ SEC.8 T3N R64W 6PM  
 WELD COUNTY, COLORADO  
 LOCATION ID 446972  
 REMEDIATION # 21054

DATE: 04/08/22

FIG. NO.  
2

DRAWN BY:  
RTG



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



#### LEGEND

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

#### PARAMETERS

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

mg/kg = MILLIGRAMS PER KILOGRAM

mg/L = MILLIGRAMS PER LITER

mmhos/cm = MILLIMHOS PER CENTIMETER

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

#### NOTES:

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

VALUES PRESENTED IN **BOLD** VALUES CONTAIN CONCENTRATIONS THAT EXCEED COGCC TABLE 915-1 REGULATORY LIMITS FOR THAT COMPOUND.

COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION

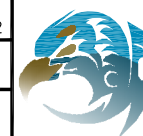
#### SOIL ANALYTICAL MAP

LDS A #9-8, 16-8, 20-8 TANK BATTERY  
CLOSURE ASSESSMENT  
40.239809 / -104.566252  
NE¼ SE¼ SEC.8 T3N R64W 6PM  
WELD COUNTY, COLORADO  
LOCATION ID 446972  
REMEDATION # 21054

DATE:  
04/11/22

DRAWN BY:  
RTG

FIG.  
NO. 3



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





## **TABLES**

**Table 1: Photoionization Detector Reading Summary**

**Table 2: Soil Analytical Results Summary**

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

**TABLE 1**  
**PHOTOIONIZATION DETECTOR READING SUMMARY**  
**LDS A #9-8, 16-8, 20-8 TANK BATTERY**  
**CLOSURE ASSESSMENT**  
**40.2398097 / -104.566252**  
**NE1/4 SE1/4 SEC.8 T3N R64W 6PM**  
**WELD COUNTY, COLORADO**  
**LOCATION ID 446972**  
**REMEDIATION # 21054**

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Lab Submission (Y/N)
TB-SS-01 @ 0.5' (40.239086 / -104.565888)	01/12/22	0.5	7.6	Y
TB-SS-02 @ 2' (40.239811 / -104.566292)	01/12/22	2	17.7	Y
TB-SS-03 @ 0.5' (40.239815 / -104.566245)	01/12/22	3.0	1.6	N
TB-SS-04 @ 0.5' (40.239783 / -104.566353)	01/12/22	0.5	1.2	N
TB-SS-05 @ 0.5' (40.239929 / -104.566334)	01/12/22	0.5	1.4	N
TB-SS-06 @ 0.5' (40.239931 / -104.566292)	01/12/22	0.5	2.9	N
WV-SS-01 @ 3' (40.239818 / -104.565957)	01/12/22	3	3.8	N
WV-SS-02 @ 3' (40.239804 / -104.565940)	01/12/22	3	5.3	Y
WV-SS-03 @ 3' (40.239789 / -104.565956)	01/12/22	3	2.4	N
WV-SS-04 @ 3' (40.239802 / -104.565977)	01/12/22	3	3.2	N
WV-FS-01 @ 4' (40.239802 / -104.565960)	01/12/22	4	13.8	Y
(Y/N) = Yes or No ppm-v = parts per million by volume PID = Photoionization Detector				

TABLE 2  
SOIL ANALYTICAL RESULTS SUMMARY  
LDS A #9-8, 16-8, 20-8 TANK BATTERY  
CLOSURE ASSESSMENT  
40.2398097 / -104.566252  
NE1/4 SE1/4 SEC.8 T3N R64W 6PM  
WELD COUNTY, COLORADO  
LOCATION ID 446972  
REMEDATION # 21054

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	--	--	--	--
TB-SS-01 @ 0.5' (40.239086 / -104.565888)	01/12/22	0.5	7.6	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	<0.198	0.656	7.97	0.528
TB-SS-02 @ 2' (40.239811 / -104.566292)	01/12/22	2	17.7	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	0.319	0.408	8.01	0.448
WV-SS-02 @ 3' (40.239804 / -104.565940)	01/12/22	3	5.3	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	0.220	0.873	7.86	0.627
WV-FS-01 @ 4' (40.239802 / -104.565960)	01/12/22	4	13.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	0.260	0.709	7.95	1.24
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 MDL and/or reporting limit. Note: Values presented in <b>BOLD</b> contained concentrations exceeding COGCC Table 915-1 Regulatory Limits. Values presented with asterisk (*) exceed COGCC Table 915-1 Protection of Groundwater Soil Screening Levels for that compound																
				TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics				1,2,4-TMB = 1,2,4-Trimethylbenzene				MDL = Minimum Detection Limits				
				TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics				1,3,5-TMB = 1,3,5-Trimethylbenzene								
				TPH-RRO = Total Petroleum Hydrocarbons - Residual Range Organics												
				NA = Not Analyzed												

TABLE 3  
PAH ANALYTICAL RESULTS SUMMARY  
LDS A #9-8, 16-8, 20-8 TANK BATTERY  
CLOSURE ASSESSMENT  
40.2398097 / -104.566252  
NE1/4 SE1/4 SEC.8 T3N R64W 6PM  
WELD COUNTY, COLORADO  
LOCATION ID 446972  
REMEDATION # 21054

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
TB-SS-01 @ 0.5' (40.2398086 / -104.565888)	01/12/22	0.5	7.6	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.000854	<0.00067	<0.00067	<0.00067	0.000405	<0.00067	<0.00067	<0.00067	0.000644
TB-SS-02 @ 2' (40.239811 / -104.566292)	01/12/22	2	17.7	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.000889	0.000834	<0.00067	<0.00067	<0.00067	0.000465	<0.00067	<0.00067	<0.00067	<0.00067
WV-SS-02 @ 3' (40.239804 / -104.565940)	01/12/22	3	5.3	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
WV-FS-01 @4' (40.239802 / -104.565960)	01/12/22	4	13.8	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.000855	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
COGCC = Colorado Oil and Gas Conservation Commission      PID = Photoionization Detector mg/kg = milligrams per kilogram      ppm-v = parts per million by volume      MDL - Minimum Detection Limit Note: Values presented with a less than symbol (<) did not contain concentrations at or above the laboratory MDL and/or reporting limit. Note: Values presented in <b>BOLD</b> contained concentrations exceeding COGCC Table 915-1 Regulatory Limits																		



## **ATTACHMENT A**

### **Photo Log**

# LDS A #9-8, 16-8, 20-8 Tank Battery

## Location ID 446972

## Remediation # 21054

Closure Assessment

January 2022



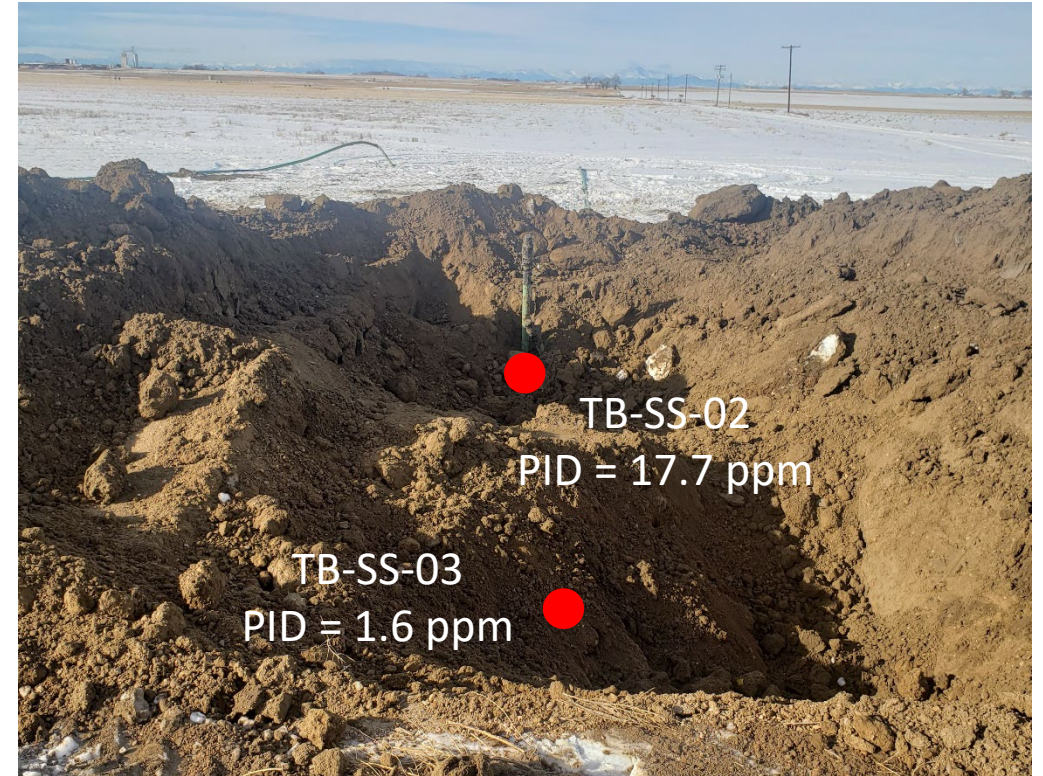
**EAGLE**  
ENVIRONMENTAL  
CONSULTING, INC.  
8000 W 44th Ave, Wheat Ridge, CO 80033  
Ph: 303-433-0479 • F: 303-325-5449



## Production Tank and Separator Connections - 01-12-22

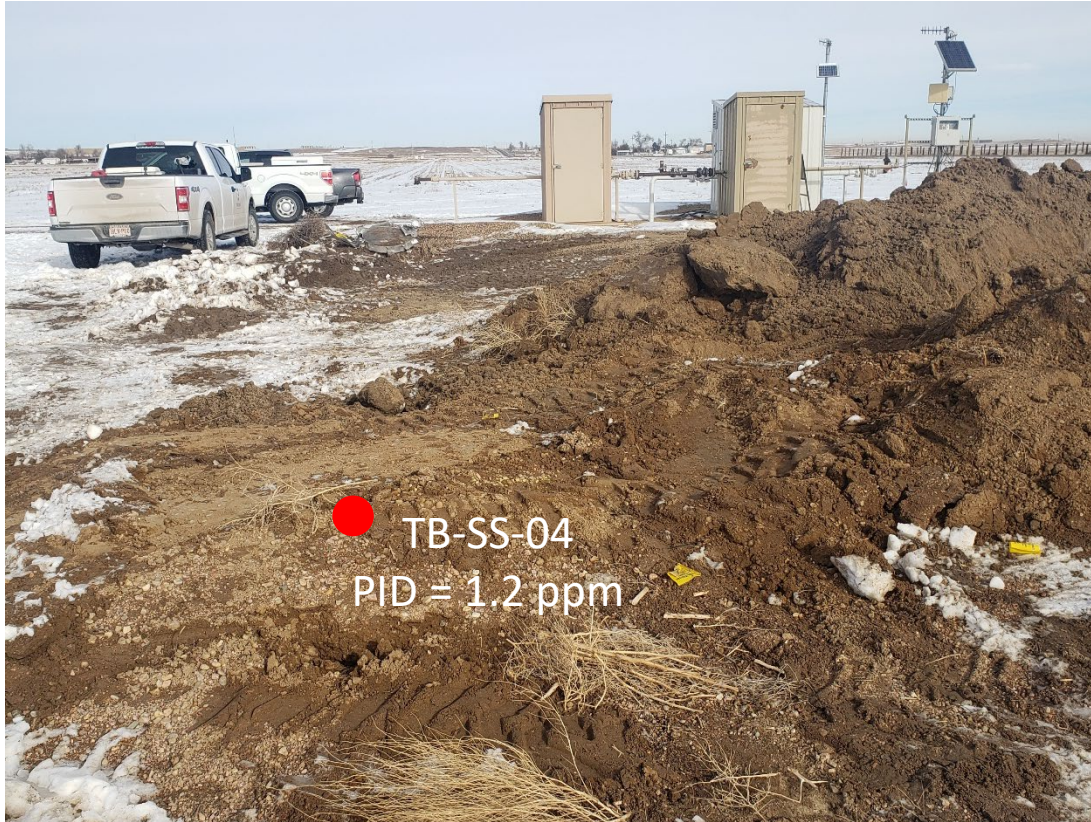


Looking south  
Former production tank location / connection point  
No petroleum hydrocarbon staining or odor observed



Looking west  
Former separator location  
Flowline and dumpline connection points  
No petroleum hydrocarbon staining or odor observed

## VOC Burner and Meter Houses - 01-12-22



TB-SS-04  
PID = 1.2 ppm

Looking north

Former flare location

No petroleum hydrocarbon  
staining or odor observed



TB-SS-05  
PID = 1.4 ppm

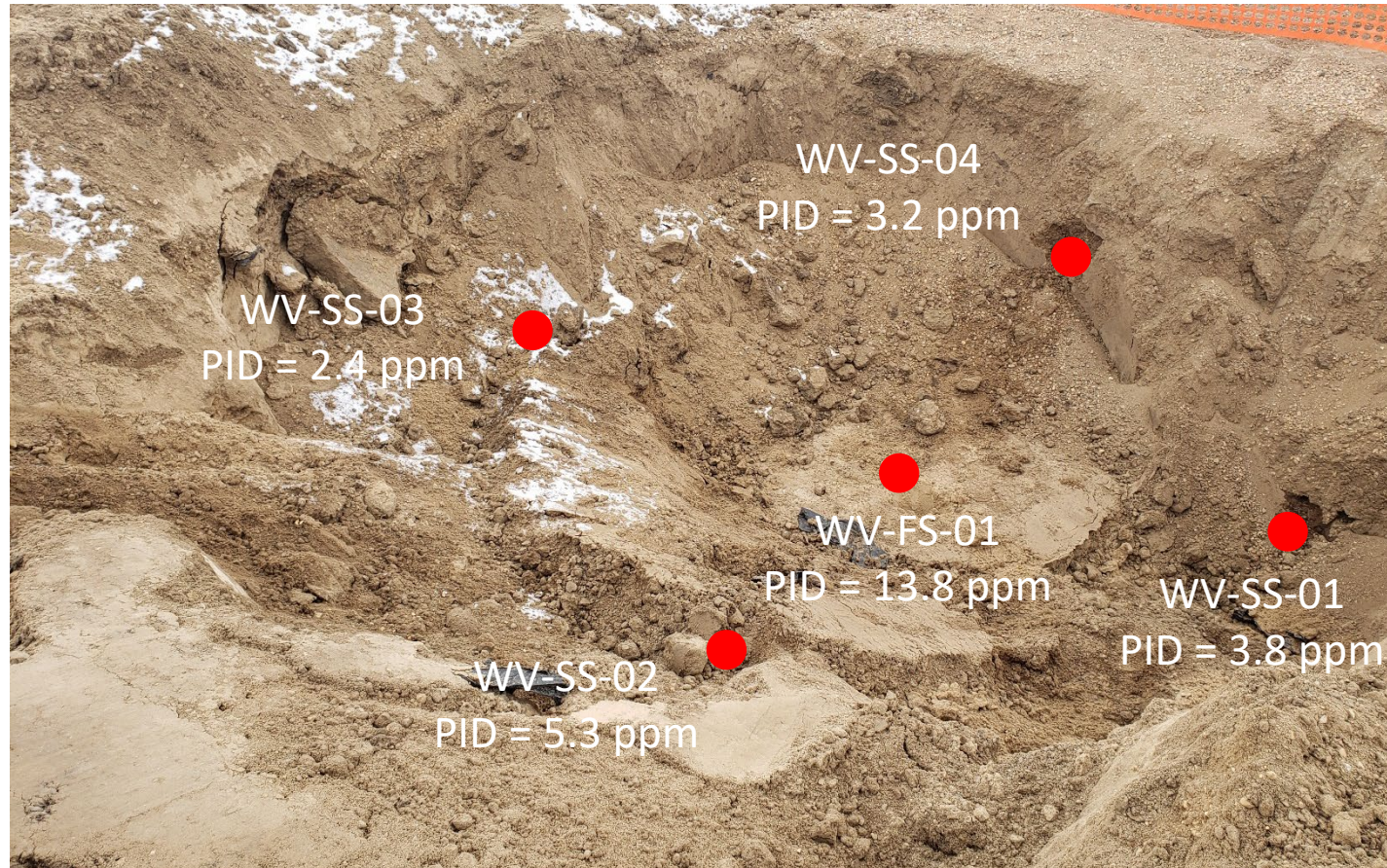
TB-SS-06  
PID = 2.9 ppm

Looking north

Meter Houses

No petroleum hydrocarbon  
staining or odor observed

## Buried Vault Excavation - 01-12-22



Looking southwest

No petroleum hydrocarbon staining or odor observed



## **ATTACHMENT B**

### **Laboratory Analytical Report**



January 20, 2022

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

**Project Name - Noble - LDS A #9-8,16-8, 20-8 TB      Project Number - -**

Attached are your analytical results for Noble - LDS A #9-8,16-8, 20-8 TB received by Origins Laboratory, Inc. January 12, 2022. This project is associated with Origins project number Y201184-01.

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: -

Project: Noble - LDS A #9-8,16-8, 20-8 TB

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-SS-01@0.5'	Y201184-01	Soil	January 12, 2022 10:04	01/12/2022 12:42
TB-SS-02@2'	Y201184-02	Soil	January 12, 2022 10:08	01/12/2022 12:42
WV-SS-02@3'	Y201184-03	Soil	January 12, 2022 10:38	01/12/2022 12:42
WV-FS-01@4'	Y201184-04	Soil	January 12, 2022 10:53	01/12/2022 12:42

The project name was revised per Andrew's email on 01/19/2021. JM

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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 42011741

Client: Eagle

Client Project ID: LDS A #9-8, 16-8, 20-8 TB

Checklist Completed by: KH

Shipped Via: HD

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

Date/time completed: 1/12/22

Airbill #: 16

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

Cooler Number/Temperature: 1 15.1 °C / °C / °C (Describe) °C

Thermometer ID: 7003

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

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

Reviewed by (Project Manager) JM

Date/Time Reviewed 1/13/22

Origins Laboratory, Inc.

*Jordan A. Merrill*

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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

TB-SS-01@0.5'  
1/12/2022 10:04:00AM

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

**Origins Laboratory, Inc.**  
**Y201184-01 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	ND	0.198	mg/L	1	B2A1310	KAP	01/13/2022	01/14/2022	
-------	----	-------	------	---	---------	-----	------------	------------	--

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2A1324	ZZZ	01/13/2022	01/14/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl	116 %	50-150			"	"	"	
------------------------	-------	--------	--	--	---	---	---	--

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A1701	ZZZ	01/17/2022	01/17/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130			"	"	"	
Surrogate: Toluene-d8	83.2 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

**TB-SS-01@0.5'**  
**1/12/2022 10:04:00AM**

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

**Origins Laboratory, Inc.**  
**Y201184-01 (Soil)**

**Metals by Saturated Paste by EPA 6010**

Calcium	4.53	0.499	meq/L	10	[CALC]	KAP	01/13/2022	01/14/2022
Magnesium	ND	0.823	"	"	"	KAP	"	"
Sodium	0.861	0.435	"	"	"	KAP	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L594401		01/13/2022	01/14/2022
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"
Acenaphthene	ND	0.00067	"	"	"		"	"
Anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"
Benzo(b)fluoranthene	0.000854	0.00067	"	"	"		"	"
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"
Chrysene	ND	0.00067	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"
Fluoranthene	0.000405	0.00067	"	"	"		"	" J
Fluorene	ND	0.00067	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"
Naphthalene	ND	0.00067	"	"	"		"	"
Pyrene	0.000644	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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

**TB-SS-01@0.5'**  
**1/12/2022 10:04:00AM**

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

**Waypoint Analytical, Inc.**  
**Y201184-01 (Soil)**

## PAH by 8270D SIM

Surrogate: 2-Fluorobiphenyl	71.5 %	33-115			L5944 01	01/13/2022	01/14/2022
Surrogate: 4-Terphenyl-d14	87 %	33-122			"	"	"
Surrogate: Nitrobenzene-d5	56.4 %	29-110			"	"	"

## pH in Soil by 9045D

pH	7.97		pH Units	1	B2A1312	ACC	01/13/2022	01/14/2022
----	------	--	----------	---	---------	-----	------------	------------

## SAR by 20B Saturated Paste

SAR	0.528		SAR	1	B2A1308	KAP	01/13/2022	01/14/2022
-----	-------	--	-----	---	---------	-----	------------	------------

## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.656	0.00500	mmhos/cm	1	B2A1319	ACC	01/13/2022	01/14/2022
---------------------------	-------	---------	----------	---	---------	-----	------------	------------

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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

**TB-SS-02@2'**

**1/12/2022 10:08:00AM**

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

**Origins Laboratory, Inc.**  
**Y201184-02 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.319	0.199	mg/L	1	B2A1310	KAP	01/13/2022	01/14/2022	
-------	-------	-------	------	---	---------	-----	------------	------------	--

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2A1324	ZZZ	01/13/2022	01/14/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl	116 %	50-150			"	"	"	
------------------------	-------	--------	--	--	---	---	---	--

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A1701	ZZZ	01/17/2022	01/17/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"
Surrogate: Toluene-d8	82.6 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	99.7 %	70-130			"	"	"

**Metals by Saturated Paste by EPA 6010**

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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

TB-SS-02@2'

1/12/2022 10:08:00AM

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

**Origins Laboratory, Inc.**  
Y201184-02 (Soil)

**Metals by Saturated Paste by EPA 6010**

Calcium	2.40	0.499	meq/L	10	[CALC]	KAP	01/13/2022	01/14/2022
Magnesium	0.897	0.823	"	"	"	KAP	"	"
Sodium	0.574	0.435	"	"	"	KAP	"	"

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L594401		01/13/2022	01/14/2022
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"
Acenaphthene	ND	0.00067	"	"	"		"	"
Anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)pyrene	0.000889	0.00067	"	"	"		"	"
Benzo(b)fluoranthene	0.000834	0.00067	"	"	"		"	"
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"
Chrysene	ND	0.00067	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"
Fluoranthene	0.000465	0.00067	"	"	"		"	" J
Fluorene	ND	0.00067	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"
Naphthalene	ND	0.00067	"	"	"		"	"
Pyrene	ND	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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

TB-SS-02@2'

1/12/2022 10:08:00AM

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

**Waypoint Analytical, Inc.**  
Y201184-02 (Soil)

**PAH by 8270D SIM**

Surrogate: 2-Fluorobiphenyl	62.8 %	33-115			L5944 01	01/13/2022	01/14/2022
Surrogate: 4-Terphenyl-d14	82.6 %	33-122			"	"	"
Surrogate: Nitrobenzene-d5	51.1 %	29-110			"	"	"

**pH in Soil by 9045D**

pH	8.01	pH Units	1	B2A1312	ACC	01/13/2022	01/14/2022
----	------	----------	---	---------	-----	------------	------------

**SAR by 20B Saturated Paste**

SAR	0.448	SAR	1	B2A1308	KAP	01/13/2022	01/14/2022
-----	-------	-----	---	---------	-----	------------	------------

**Specific Conductance Mod. 9050A**

Specific Conductance (EC)	0.408	0.00500 mmhos/cm	1	B2A1319	ACC	01/13/2022	01/14/2022
---------------------------	-------	------------------	---	---------	-----	------------	------------

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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

WV-SS-02@3'

1/12/2022 10:38:00AM

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

**Origins Laboratory, Inc.**  
**Y201184-03 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.220	0.200	mg/L	1	B2A1310	KAP	01/13/2022	01/14/2022	
-------	-------	-------	------	---	---------	-----	------------	------------	--

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2A1324	ZZZ	01/13/2022	01/14/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl	116 %	50-150			"	"	"	
------------------------	-------	--------	--	--	---	---	---	--

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A1701	ZZZ	01/17/2022	01/17/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130			"	"	"
Surrogate: Toluene-d8	82.8 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	98.8 %	70-130			"	"	"

**Metals by Saturated Paste by EPA 6010**

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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

WV-SS-02@3'

1/12/2022 10:38:00AM

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

Origins Laboratory, Inc.  
Y201184-03 (Soil)

## Metals by Saturated Paste by EPA 6010

Calcium	5.78	0.499	meq/L	10	[CALC]	KAP	01/13/2022	01/14/2022
Magnesium	2.43	0.823	"	"	"	KAP	"	"
Sodium	1.27	0.435	"	"	"	KAP	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L594401		01/13/2022	01/14/2022
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"
Acenaphthene	ND	0.00067	"	"	"		"	"
Anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"
Chrysene	ND	0.00067	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"
Fluoranthene	ND	0.00067	"	"	"		"	"
Fluorene	ND	0.00067	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"
Naphthalene	ND	0.00067	"	"	"		"	"
Pyrene	ND	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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

WV-SS-02@3'

1/12/2022 10:38:00AM

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

Waypoint Analytical, Inc.  
Y201184-03 (Soil)

## PAH by 8270D SIM

Surrogate: 2-Fluorobiphenyl	63 %	33-115			L5944 01	01/13/2022	01/14/2022
Surrogate: 4-Terphenyl-d14	83.2 %	33-122			"	"	"
Surrogate: Nitrobenzene-d5	51.7 %	29-110			"	"	"

## pH in Soil by 9045D

pH	7.86		pH Units	1	B2A1312	ACC	01/13/2022	01/14/2022
----	------	--	----------	---	---------	-----	------------	------------

## SAR by 20B Saturated Paste

SAR	0.627		SAR	1	B2A1308	KAP	01/13/2022	01/14/2022
-----	-------	--	-----	---	---------	-----	------------	------------

## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.873	0.00500	mmhos/cm	1	B2A1319	ACC	01/13/2022	01/14/2022
---------------------------	-------	---------	----------	---	---------	-----	------------	------------

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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

WV-FS-01@4'

1/12/2022 10:53:00AM

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

**Origins Laboratory, Inc.**  
**Y201184-04 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.260	0.200	mg/L	1	B2A1310	KAP	01/13/2022	01/14/2022	
-------	-------	-------	------	---	---------	-----	------------	------------	--

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2A1324	ZZZ	01/13/2022	01/14/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ZZZ	"	"	U

Surrogate: o-Terphenyl	108 %	50-150			"	"	"	
------------------------	-------	--------	--	--	---	---	---	--

**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A1701	ZZZ	01/17/2022	01/17/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130			"	"	"
Surrogate: Toluene-d8	82.7 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	98.8 %	70-130			"	"	"

**Metals by Saturated Paste by EPA 6010**

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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

WV-FS-01@4'

1/12/2022 10:53:00AM

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

Origins Laboratory, Inc.  
Y201184-04 (Soil)

## Metals by Saturated Paste by EPA 6010

Calcium	3.53	0.499	meq/L	10	[CALC]	KAP	01/13/2022	01/14/2022
Magnesium	1.53	0.823	"	"	"	KAP	"	"
Sodium	1.97	0.435	"	"	"	KAP	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L594401		01/13/2022	01/14/2022
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"
Acenaphthene	ND	0.00067	"	"	"		"	"
Anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"
Benzo(b)fluoranthene	0.000855	0.00067	"	"	"		"	"
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"
Chrysene	ND	0.00067	"	"	"		"	"
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"
Fluoranthene	ND	0.00067	"	"	"		"	"
Fluorene	ND	0.00067	"	"	"		"	"
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"
Naphthalene	ND	0.00067	"	"	"		"	"
Pyrene	ND	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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

WV-FS-01@4'

1/12/2022 10:53:00AM

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

Waypoint Analytical, Inc.  
Y201184-04 (Soil)

## PAH by 8270D SIM

Surrogate: 2-Fluorobiphenyl	68.9 %	33-115			L5944 01	01/13/2022	01/14/2022
Surrogate: 4-Terphenyl-d14	86.9 %	33-122			"	"	"
Surrogate: Nitrobenzene-d5	56.4 %	29-110			"	"	"

## pH in Soil by 9045D

pH	7.95		pH Units	1	B2A1312	ACC	01/13/2022	01/14/2022
----	------	--	----------	---	---------	-----	------------	------------

## SAR by 20B Saturated Paste

SAR	1.24		SAR	1	B2A1308	KAP	01/13/2022	01/14/2022
-----	------	--	-----	---	---------	-----	------------	------------

## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.709	0.00500	mmhos/cm	1	B2A1319	ACC	01/13/2022	01/14/2022
---------------------------	-------	---------	----------	---	---------	-----	------------	------------

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: -

Project: Noble - LDS A #9-8,16-8, 20-8 TB

## 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 B2A1324 - EPA 3550B

Blank (B2A1324-BLK1)

Prepared: 01/13/2022 Analyzed: 01/13/2022

Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	23		"	24.9		90.8	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: -

Project: Noble - LDS A #9-8,16-8, 20-8 TB

## 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 B2A1324 - EPA 3550B

### LCS (B2A1324-BS1)

Prepared: 01/13/2022 Analyzed: 01/13/2022

Diesel (C10-C28)	884	50.0	mg/kg	1000		88.4	70-130			
Residual Range Organics (C28-C40)	892	200	"	1000		89.2	70-130			
Surrogate: o-Terphenyl	50		"	49.8		101	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: -

Project: Noble - LDS A #9-8,16-8, 20-8 TB

## 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 B2A1324 - EPA 3550B

Matrix Spike (B2A1324-MS1)		Source: Y201184-01			Prepared: 01/13/2022 Analyzed: 01/13/2022					
Diesel (C10-C28)	978	50.0	mg/kg	1000	ND	97.8	70-130			
Residual Range Organics (C28-C40)	965	200	"	1000	ND	96.5	70-130			
Surrogate: o-Terphenyl	45		"	49.8		90.6	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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

**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 B2A1324 - EPA 3550B**

Matrix Spike Dup (B2A1324-MSD1)		Source: Y201184-01			Prepared: 01/13/2022 Analyzed: 01/13/2022					
Diesel (C10-C28)	1010	50.0	mg/kg	1000	ND	101	70-130	3.60	35	
Residual Range Organics (C28-C40)	1010	200	"	1000	ND	101	70-130	4.87	35	
Surrogate: o-Terphenyl	46		"	49.8		93.2	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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

## 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
<b>Batch B2A1701 - EPA 5030 (soil)</b>										
<b>Blank (B2A1701-BLK1)</b>					Prepared: 01/17/2022 Analyzed: 01/17/2022					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							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	0.12		"	0.125		99.1	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		88.1	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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1701 - EPA 5030 (soil)</b>										
<b>LCS (B2A1701-BS1)</b>					Prepared: 01/17/2022 Analyzed: 01/17/2022					
1,2,4-Trimethylbenzene	0.0893	0.00200	mg/kg	0.100		89.3	70-130			
Naphthalene	0.0712	0.0100	"	0.100		71.2	70-130			
1,3,5-Trimethylbenzene	0.0887	0.00200	"	0.100		88.7	70-130			
Benzene	0.111	0.00200	"	0.100		111	70-130			
Ethylbenzene	0.0866	0.00200	"	0.100		86.6	70-130			
m,p-Xylene	0.178	0.00400	"	0.200		89.0	70-130			
o-Xylene	0.0865	0.00200	"	0.100		86.5	70-130			
Toluene	0.0871	0.00200	"	0.100		87.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		97.0	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		90.6	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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1701 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B2A1701-MS1)</b>		<b>Source: Y201158-01</b>			Prepared: 01/17/2022 Analyzed: 01/17/2022					
1,2,4-Trimethylbenzene	0.0937	0.00200	mg/kg	0.100	ND	93.7	70-130			
Naphthalene	0.0731	0.0100	"	0.100	0.000940	72.1	70-130			
1,3,5-Trimethylbenzene	0.0933	0.00200	"	0.100	ND	93.3	70-130			
Benzene	0.125	0.00200	"	0.100	ND	125	70-130			
Ethylbenzene	0.0915	0.00200	"	0.100	ND	91.5	70-130			
m,p-Xylene	0.188	0.00400	"	0.200	ND	94.1	70-130			
o-Xylene	0.0914	0.00200	"	0.100	ND	91.4	70-130			
Toluene	0.0944	0.00200	"	0.100	ND	94.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.0	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		88.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.7	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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A1701 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B2A1701-MSD1)</b>		<b>Source: Y201158-01</b>			Prepared: 01/17/2022 Analyzed: 01/17/2022					
1,2,4-Trimethylbenzene	0.0861	0.00200	mg/kg	0.100	ND	86.1	70-130	8.39	20	
Naphthalene	0.0704	0.0100	"	0.100	0.000940	69.4	70-130	3.77	20	QM-07
1,3,5-Trimethylbenzene	0.0854	0.00200	"	0.100	ND	85.4	70-130	8.75	20	
Benzene	0.118	0.00200	"	0.100	ND	118	70-130	5.11	20	
Ethylbenzene	0.0839	0.00200	"	0.100	ND	83.9	70-130	8.71	20	
m,p-Xylene	0.172	0.00400	"	0.200	ND	86.0	70-130	8.95	20	
o-Xylene	0.0839	0.00200	"	0.100	ND	83.9	70-130	8.56	20	
Toluene	0.0878	0.00200	"	0.100	ND	87.8	70-130	7.18	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.0	70-130			
Surrogate: Toluene-d8	0.11		"	0.125		86.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.6	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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

## 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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

## Saturated Paste - Quality Control

### Origins Laboratory, Inc.

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

#### Batch B2A1312 - NO PREP

<b>Duplicate (B2A1312-DUP1)</b>		<b>Source: Y201175-06</b>			Prepared: 01/13/2022 Analyzed: 01/14/2022					
pH	7.52		pH Units		7.68			2.11	25	

#### Batch B2A1319 - NO PREP

<b>Blank (B2A1319-BLK1)</b>		Prepared: 01/13/2022 Analyzed: 01/14/2022								
Specific Conductance (EC)	0.000800	0.00500	mmhos/cm							
<b>Duplicate (B2A1319-DUP1)</b>		<b>Source: Y201175-06</b>			Prepared: 01/13/2022 Analyzed: 01/14/2022					
Specific Conductance (EC)	3.70	0.00500	mmhos/cm		3.03			20.0	25	

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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

**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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch L594401 - 3550B**

MSD (L 95521-MSD-L594401)		Source: 95521			Prepared: 01/13/2022 Analyzed: 01/14/2022					
Naphthalene	0.135	0.000484	mg/Kg	0.166	<0.000484	81.3	30-130	14.2	30	
Pyrene	0.162	0.000643	"	0.166	<0.000643	97.5	30-130	9.7	30	
Fluorene	0.166	0.000286	"	0.166	0.000311	100	30-130	9.4	30	
Fluoranthene	0.177	0.000394	"	0.166	<0.000394	107	30-130	9.4	30	
Dibenz(a,h)anthracene	0.217	0.000614	"	0.166	<0.000614	131	30-130	4.2	30	*
Benzo(k)fluoranthene	0.142	0.000437	"	0.166	<0.000437	85.5	30-130	3.5	30	
Chrysene	0.177	0.000624	"	0.166	<0.000624	107	30-130	7.6	30	
2-Methylnaphthalene	0.149	0.000645	"	0.166	<0.000645	89.7	30-130	13.6	30	
Benzo(b)fluoranthene	0.123	0.000585	"	0.166	<0.000585	74	30-130	9.3	30	
Acenaphthene	0.151	0.000304	"	0.166	<0.000304	90.9	30-130	9.7	30	
Indeno(1,2,3-cd)pyrene	0.194	0.000627	"	0.166	<0.000627	117	30-130	6.3	30	
1-Methylnaphthalene	0.148	0.000364	"	0.166	0.000391	89.1	30-130	12.9	30	
Anthracene	0.165	0.000334	"	0.166	<0.000334	99.3	30-130	8.8	30	
Benzo(a)anthracene	0.166	0.000493	"	0.166	<0.000493	100	30-130	10.1	30	
Benzo(a)pyrene	0.19	0.000468	"	0.166	<0.000468	114	30-130	10.5	30	
Surrogate: Nitrobenzene-d5	48.6		"	0.331	149	48.6	29-110			
Surrogate: 2-Fluorobiphenyl	62.5		"	0.331	213	62.5	33-115			
Surrogate: 4-Terphenyl-d14	85.4		"	0.331	278	85.4	33-122			

MS (L 95521-MS-L594401)		Source: 95521			Prepared: 01/13/2022 Analyzed: 01/14/2022					
Acenaphthene	0.137	0.000304	mg/Kg	0.162	<0.000304	84.5	30-130			
Benzo(k)fluoranthene	0.137	0.000437	"	0.162	<0.000437	84.5	30-130			
Indeno(1,2,3-cd)pyrene	0.182	0.000627	"	0.162	<0.000627	112	30-130			
Fluorene	0.151	0.000286	"	0.162	0.000311	93.2	30-130			
Fluoranthene	0.161	0.000394	"	0.162	<0.000394	99.3	30-130			
Dibenz(a,h)anthracene	0.208	0.000614	"	0.162	<0.000614	128	30-130			
Chrysene	0.164	0.000624	"	0.162	<0.000624	101	30-130			

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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

**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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch L594401 - 3550B**

MS (L 95521-MS-L594401)		Source: 95521			Prepared: 01/13/2022 Analyzed: 01/14/2022					
Benzo(b)fluoranthene	0.112	0.000585	mg/Kg	0.162	<0.000585	69.1	30-130			
Benzo(a)pyrene	0.171	0.000468	"	0.162	<0.000468	106	30-130			
Naphthalene	0.117	0.000484	"	0.162	<0.000484	72.2	30-130			
Anthracene	0.151	0.000334	"	0.162	<0.000334	93.2	30-130			
Pyrene	0.147	0.000643	"	0.162	<0.000643	90.7	30-130			
2-Methylnaphthalene	0.13	0.000645	"	0.162	<0.000645	80.2	30-130			
1-Methylnaphthalene	0.13	0.000364	"	0.162	0.000391	80.2	30-130			
Benzo(a)anthracene	0.15	0.000493	"	0.162	<0.000493	92.5	30-130			
Surrogate: Nitrobenzene-d5	47.6		"	0.325	149	47.6	29-110			
Surrogate: 4-Terphenyl-d14	83		"	0.325	278	83	33-122			
Surrogate: 2-Fluorobiphenyl	60.6		"	0.325	213	60.6	33-115			

LCS (LCS-L594401)		Prepared: 01/13/2022 Analyzed: 01/14/2022								
Benzo(k)fluoranthene	0.135	0.000437	mg/Kg	0.167		80.8	30-130			
Pyrene	0.143	0.000643	"	0.167		85.6	30-130			
Naphthalene	0.13	0.000484	"	0.167		77.8	30-130			
Indeno(1,2,3-cd)pyrene	0.194	0.000627	"	0.167		116	30-130			
Fluorene	0.154	0.000286	"	0.167		92.2	30-130			
Fluoranthene	0.157	0.000394	"	0.167		94	30-130			
1-Methylnaphthalene	0.141	0.000364	"	0.167		84.4	30-130			
Chrysene	0.16	0.000624	"	0.167		95.8	30-130			
Benzo(b)fluoranthene	0.107	0.000585	"	0.167		64	30-130			
Benzo(a)pyrene	0.178	0.000468	"	0.167		107	30-130			
Benzo(a)anthracene	0.15	0.000493	"	0.167		89.8	30-130			
Anthracene	0.149	0.000334	"	0.167		89.2	30-130			
Acenaphthene	0.141	0.000304	"	0.167		84.4	30-130			
2-Methylnaphthalene	0.141	0.000645	"	0.167		84.4	30-130			

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: -  
Project: Noble - LDS A #9-8,16-8, 20-8 TB

**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
<b>Batch L594401 - 3550B</b>										
<b>LCS (LCS-L594401)</b>					Prepared: 01/13/2022 Analyzed: 01/14/2022					
Dibenz(a,h)anthracene	0.214	0.000614	mg/Kg	0.167		128	30-130			
Surrogate: Nitrobenzene-d5	55.5		"	0.333		55.5	29-110			
Surrogate: 2-Fluorobiphenyl	72		"	0.333		72	33-115			
Surrogate: 4-Terphenyl-d14	86.1		"	0.333		86.1	33-122			
<b>LRB (LRB-L594401)</b>					Prepared: 01/13/2022 Analyzed: 01/14/2022					
Benzo(k)fluoranthene	ND	0.00067	mg/Kg				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
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	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	50.1		"	0.333		50.1	29-110			
Surrogate: 4-Terphenyl-d14	85.8		"	0.333		85.8	33-122			
Surrogate: 2-Fluorobiphenyl	72.3		"	0.333		72.3	33-115			

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: -

Project: Noble - LDS A #9-8,16-8, 20-8 TB

### 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.

\* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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