

# Wellhead Closure Checklist

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

Additional attachments (optional):		Pit Closure		Tank Battery Closure		Flowline Closure	4-22-22	Partially Buried Vault Closure	
Site Name & COGCC Facility Number: <u>DONOVAN D #02-30</u>		Date: <u>1-5-22</u>					Remediation Project #: <u>20148</u>		
Associated Wells: <u>1</u> <u>05-123-31847</u>		Age of Site: <u>years</u>					Number of Photos Attached: <u>1</u>		
Location: (GPS coordinates of wellhead or southeastern most wellhead for multiple)							Estimated Facility Size (acres):		
<u>40.262200 / -104.528530</u>									
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)									
<u>Overall good condition</u>									
USCS Soil Type: <u>SC</u>				Estimated Depth to Groundwater: <u>~10-15'</u>					
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)									
<u>None observed</u>									
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)									
<u>None observed</u>									
<b>Wellhead(s)</b>									
Well API	<u>05-123-31847</u>								
Age	<u>years</u>								
Condition of surface around wellhead	<u>Good - Per Crew</u>								
PID Readings	<u>N/A - Excavated upon arrival</u>								
Condition of subsurface (staining, odor)	<u>Good - no staining, no odor</u>								
PID Readings	<u>1.2</u>	<u>2.4</u>	<u>0.3</u>	<u>0.9</u>	<u>3.7</u>				
Sample taken? Location/Sample ID#	<u>WH-SS-01</u>	<u>WH-SS-02</u>	<u>WH-SS-03</u>	<u>WH-SS-04</u>	<u>WH-FS-01</u>				
Photo Number(s)	<u>See photolog</u>								
Other observations regarding wellheads:									
<u>Well casing cut/capped after assessment</u>									
<b>Summary</b>									
Was impacted soil identified? <u>(No)</u> Yes - less than 10 cubic yards Yes - more than 10 cubic yards									
Total number of samples field screened: <u>5</u>					Total number of samples collected: <u>5</u>				
Highest PID Reading: <u>3.7</u>					Total number of samples submitted to lab for analysis: <u>1</u>				
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? <u>N/A</u>									
Was groundwater encountered during the investigation? <u>(No)</u> 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:									

# Flowline Closure Checklist

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

Additional Attachments:	Tank Battery Closure	Wellhead Closure	Pit Closure	Partially Buried Vault Closure
	—	1-5-22	—	—
Site Name & COGCC Facility Number: <u>Dorovan S #02-30</u>		Date: <u>4-22-22</u>		Remediation Project #: <u>20148</u>
Associated Wells: <u>1</u> <u>05-123-31847</u>		Age of Site: <u>years</u>		Number of Photos Attached: <u>4</u>
Starting point: (GPS coordinates and descriptions) <u>At Well: 40.262200 / -104.528358</u>				
End point: (GPS coordinates and descriptions) <u>At Sep: 40.265059 / -104.530236</u>				
USCS Soil Type: <u>SC</u>		Estimated Depth to Groundwater: <u>~10-15'</u>		
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) <u>None observed</u>				
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) <u>None observed</u>				
<b>Flowlines</b>				
Flowline type	<u>O, G, W</u>			
Depth	<u>~4'</u>			
Age	<u>years</u>			
Length	<u>~1300'</u>			
Construction Material	<u>Steel</u>			
Were flowlines pulled?	<u>Partial Removal (~535'); Partial ABIP (~825')</u>			
Visual Integrity of lines	<u>Good</u>			
Visual impacts if trenched	<u>None observed</u>			
PID Readings if trenched	<u>4.7</u>	<u>5.2</u>	<u>5.7</u>	<u>4.5</u>
Sample taken? Location/Sample ID#	<u>FL-SS-01</u>	<u>FL-SS-02</u>	<u>FL-SS-03</u>	<u>FL-SS-04</u>
Photo Number(s)	<u>See photo log</u>			
Other observations regarding on location flowlines: <u>Partial abandonment in place - between FL-SS-01 + FL-SS-03</u>				
<b>Summary</b>				
Was impacted soil identified? <u>No</u> Yes - less than 10 cubic yards Yes - more than 10 cubic yards				
Total number of samples field screened: <u>4</u>		Total number of samples collected: <u>4</u>		
Highest PID Reading: <u>5.7</u>		Total number of samples submitted to lab for analysis: <u>2</u>		
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? <u>N/A</u>				
Was groundwater encountered during the investigation? <u>No</u> 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:				

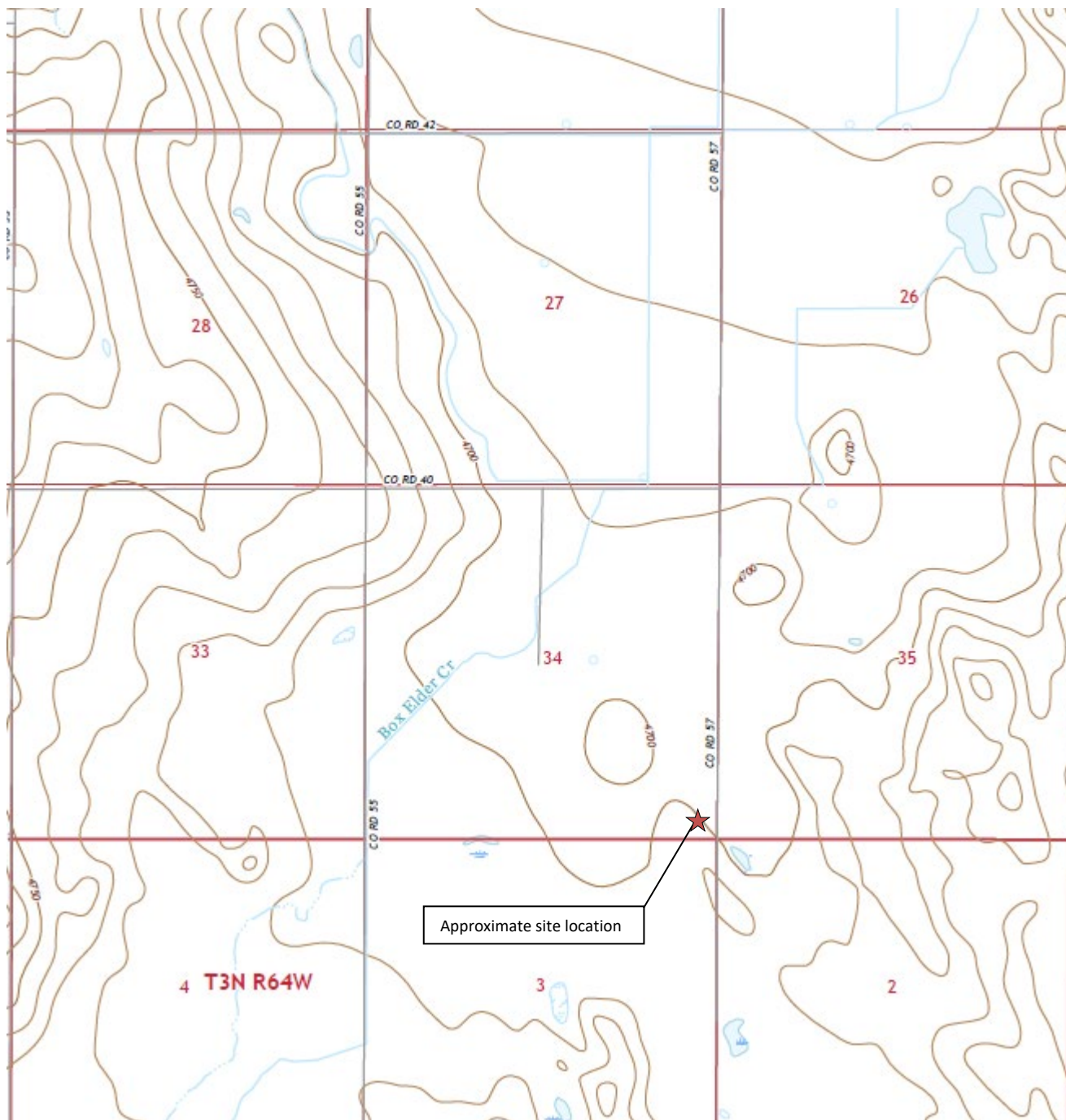


## **FIGURES**

**Figure 1: Topographic Site Location Map**

**Figure 2: Aerial Site Location Map**

**Figure 3: Soil Analytical Map**



**Topographic Site Location Map**

Donovan D #02-30  
 Closure Assessment  
 40.262200 / -104.528330  
 SE¼ SEC.34 T4N R64W 6PM  
 Weld County, Colorado  
 API # 05-123-31847  
 Remediation # 20148



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 CONSULTING, INC.

Source: USGS 7.5 Minute Topographic  
 Map, Valley View School, CO  
 Quadrangle 2019

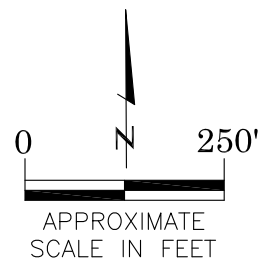
**Figure 1**





# LEGEND

- DONOVAN D #02-30 WELLHEAD (PLUGGED AND ABANDONED)
- ASSOCIATED SEPARATOR
- APPROXIMATE FLOWLINE LOCATION (REMOVED)
- APPROXIMATE FLOWLINE LOCATION (ABANDONED IN PLACE)



## AERIAL SITE LOCATION MAP

DONOVAN D #02-30  
CLOSURE ASSESSMENT  
40.262200 / -104.528330  
SE¼ SE¼ SEC.34 T4N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-31847  
REMEDIATION # 20148

DATE:

05/06/22

FIG. NO.

2

DRAWN BY:

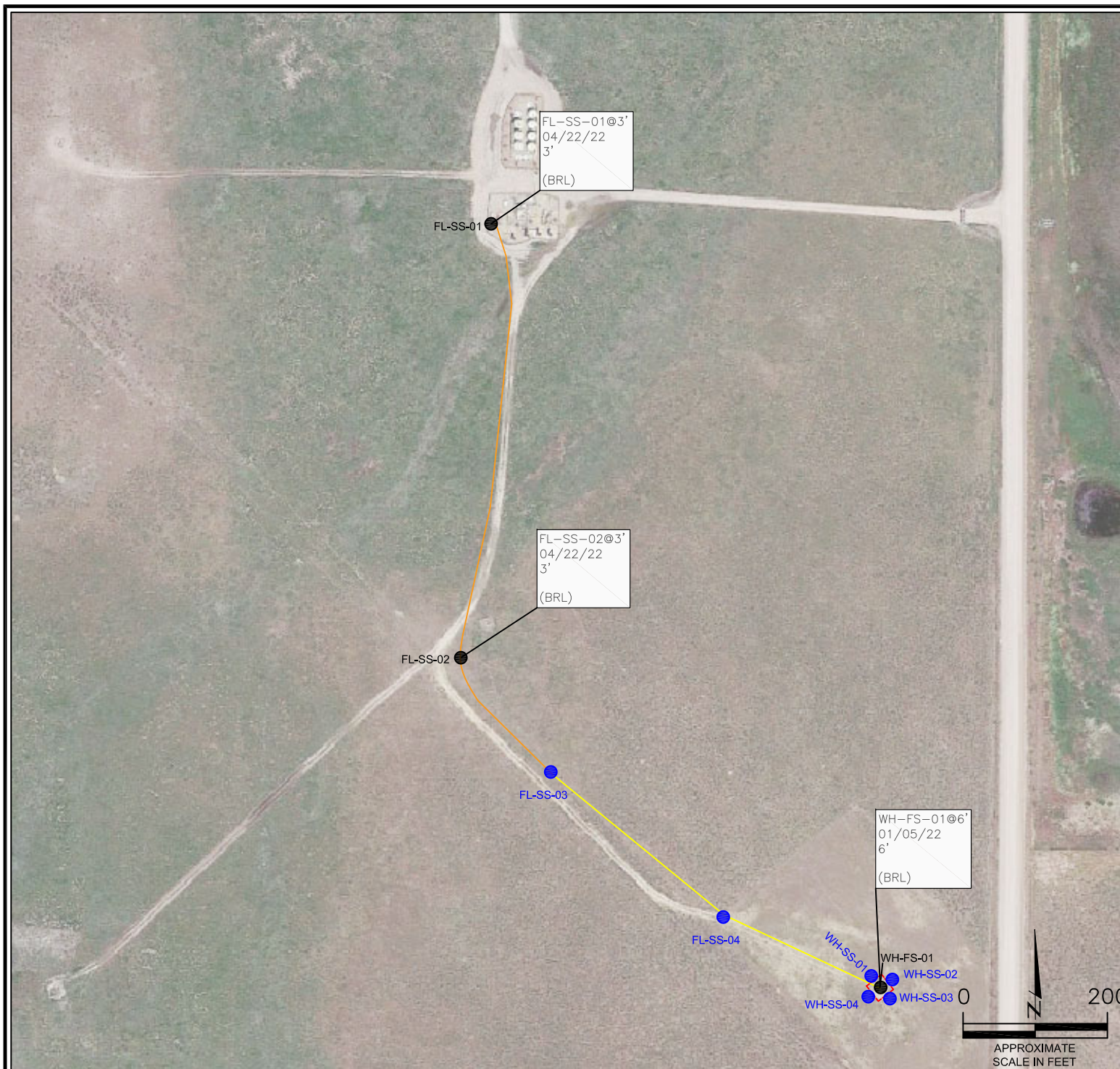
RH



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ENVIRONMENTAL  
CONSULTING, INC.

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





# LEGEND

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

## 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)  
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) (mg/kg)

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

(BRL) – ALL VALUES BELOW REGULATORY LIMITS

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.

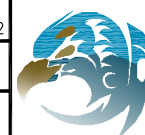
COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION

SOIL ANALYTICAL MAP  
DONOVAN D #02-30  
CLOSURE ASSESSMENT  
40.262200 / -104.528330  
SE¼ SE¼ SEC.34 T4N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-31847  
REMEDIATION # 20148

DATE:  
05/06/22

DRAWN BY:  
ER

FIG.  
NO. 3



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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 1**  
**PHOTOIONIZATION DETECTOR READING SUMMARY**  
**DONOVAN D #02-30**  
**CLOSURE ASSESSMENT**  
**40.262200 / -104.528330**  
**SE1/4 SE1/4 SEC.34 T4N R64W 6PM**  
**WELD COUNTY, COLORADO**  
**API # 05-123-31847**  
**REMEDIALATION # 20148**

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	Lab Submission (Y/N)
WH-SS-01 @ 5' (40.262197 / -104.528357)	01/05/22	5	1.2	N
WH-SS-02 @ 5' (40.262191 / -104.528326)	01/05/22	5	2.6	N
WH-SS-03 @ 5' (40.262170 / -104.528326)	01/05/22	5	0.3	N
WH-SS-04 @ 5' (40.262171 / -104.528360)	01/05/22	5	0.9	N
WH-FS-01 @ 6' (40.262179 / -104.528343)	01/05/22	6	3.7	Y
FL-SS-01 @ 3' (40.265059 / -104.530236)	04/22/22	3	4.7	Y
FL-SS-02 @ 3' (40.263447 / -104.530370)	04/22/22	3	5.2	Y
FL-SS-03 @ 3' (40.263059 / -104.530040)	04/22/22	3	5.7	N
FL-SS-04 @ 3' (40.262444 / -104.529103)	04/22/22	3	4.5	N
(Y/N) = Yes or No ppm-v = parts per million by volume PID = photoionization detector				



TABLE 2  
PAH ANALYTICAL RESULTS SUMMARY  
DONOVAN D #02-30  
CLOSURE ASSESSMENT  
40.262200 / -104.528330  
SE1/4 SE1/4 SEC.34 T4N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-31847  
REMEDIACTION # 20148

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' (40.262179 / -104.528343)	01/05/22	6	3.7	<0.00200	<0.00200	<0.00200	<0.00200	6.31	<25.0	<100	<0.00200	<0.00200	<0.199	0.909	7.96	2.91
FL-SS-01 @ 3' (40.265059 / -104.530236)	04/22/22	3	4.7	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	0.480	0.451	7.82	0.116
FL-SS-02 @ 3' (40.263447 / -104.530370)	04/22/22	3	5.2	<0.00200	<0.00200	<0.00200	<0.00200	<0.200	<25.0	<100	<0.00200	<0.00200	1.02	0.751	7.47	0.347
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																
				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												

TABLE 3  
POLYCYCLIC AROMATIC HYDROCARBONS ANALYTICAL RESULTS SUMMARY  
DONOVAN D #02-30  
CLOSURE ASSESSMENT  
40.262200 / -104.528330  
SE1/4 SE1/4 SEC.34 T4N R64W 6PM  
WELD COUNTY, COLORADO  
API # 05-123-31847  
REMEDIATION # 20148

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	PID Reading (ppm-v)	1-Methyl- naphthalene (mg/kg)	2-Methyl- naphthalene (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)-anthracene (mg/kg)	Benzo(a)- pyrene (mg/kg)	Benzo(b)- fluoranthene (mg/kg)	Benzo(k)- fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(a,h)- anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(1,2,3- cd)-pyrene (mg/kg)	Naphthalene (mg/kg)	Pyrene (mg/kg)
<b>COGCC Table 915-1 Residential Screening Levels</b>				18	24	360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	2	180
<b>COGCC Table 915-1 Protection of Groundwater Soil Screening Levels</b>				0.006	0.019	0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	0.0038	1.3
WH-FS-01 @ 6' (40.262179 / -104.528343)	01/05/22	6	3.7	0.000534	0.00102	<0.00067	<0.00067	<0.00067	0.00069	0.000613	<0.00067	0.00101	<0.00067	0.000424	<0.00067	0.00086	<0.00067	<0.00067
FL-SS-01 @ 3' (40.265059 / -104.530236)	04/22/22	3	4.7	<0.00067	0.000682	<0.00067	<0.00067	<0.00067	0.000522	<0.00067	0.000497	<0.00067	<0.00067	0.00119	0.000592	<0.00067	0.00083	0.00101
FL-SS-02 @ 3' (40.263447 / -104.530370)	04/22/22	3	5.2	<0.00067	<0.00067	<0.00067	<0.00067	0.000811	0.00103	0.000922	0.00155	0.000923	0.00112	0.000973	<0.00067	0.00066	<0.00067	0.00101
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**

# Donovan D #02-30

## API # 05-123-31847

## Remediation # 20148

Closure Assessment

January- April 2022

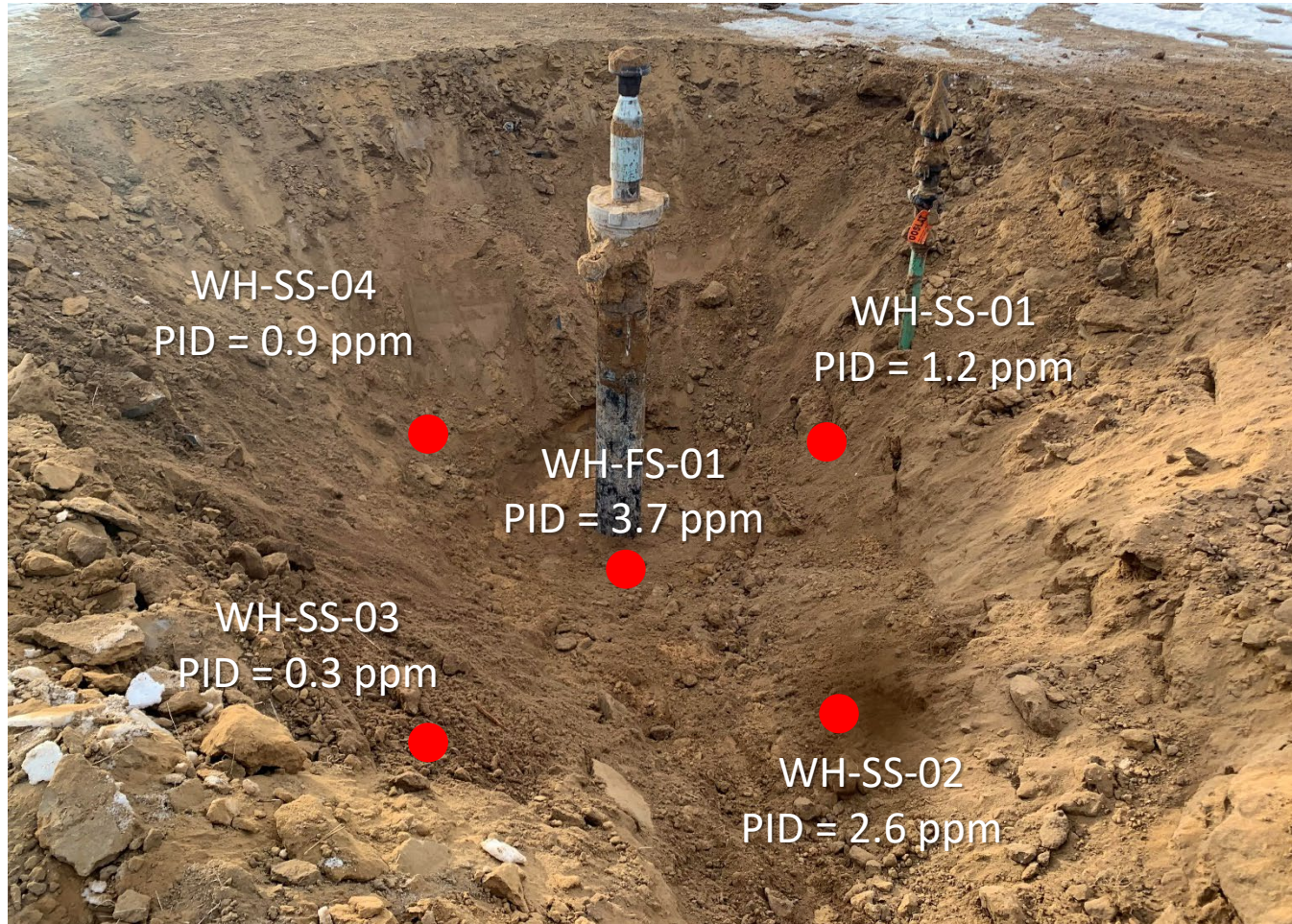


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# Wellhead Excavation – 01/05/22

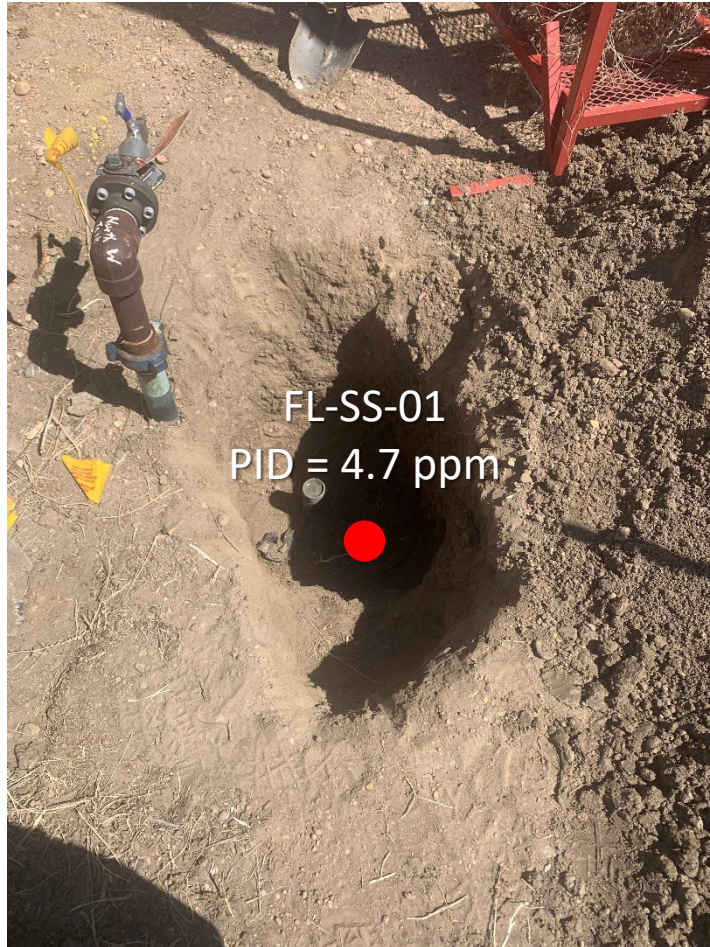


Looking west

No petroleum hydrocarbon staining or odor observed

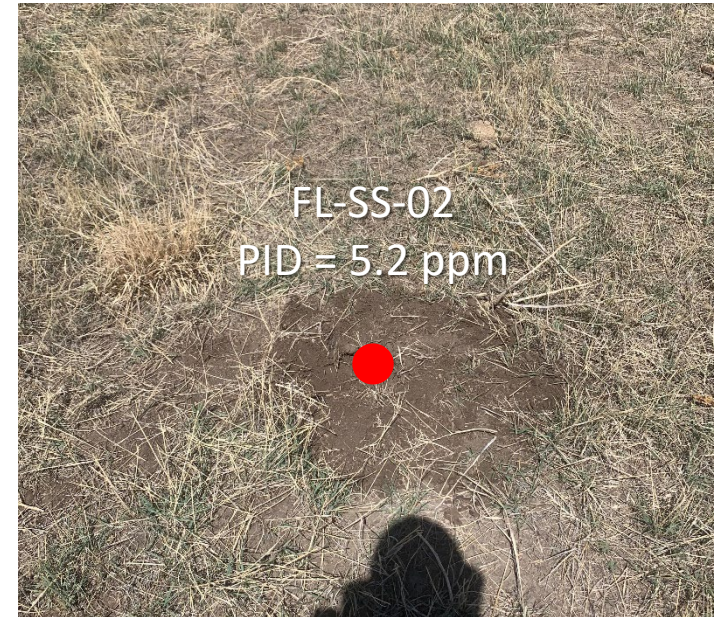


# Flowline Decommission – 04/22/22



Looking north at flowline to separator connection

No petroleum hydrocarbon staining or odor observed



Looking north at flowline northwest→north change of direction

Sample collected via hand auger

No petroleum hydrocarbon staining or odor observed



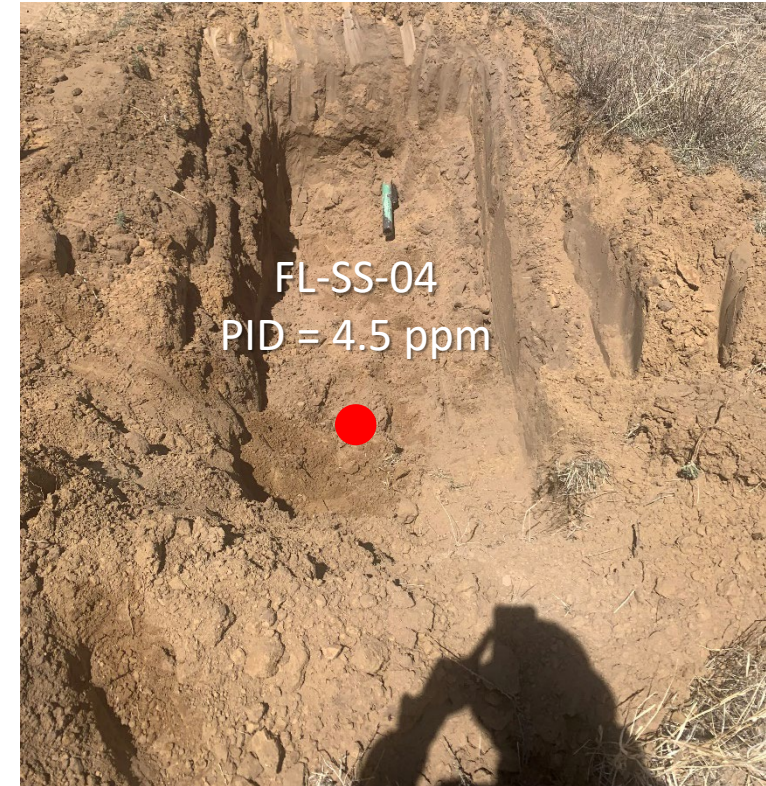
# Flowline Decommission – 04/22/22



FL-SS-03  
PID = 5.7 ppm

Looking west at flowline cut point - flowline  
abandoned in placed from FL-SS-03 to FL-SS-01

No petroleum hydrocarbon staining or odor observed



FL-SS-04  
PID = 4.5 ppm

Looking west at flowline cut point

No petroleum hydrocarbon staining or odor observed



## **ATTACHMENT B**

### **Laboratory Analytical Reports**





January 13, 2022

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Donovan D #02-30

Project Number - -

Attached are your analytical results for Noble - Donovan D #02-30 received by Origins Laboratory, Inc. January 05, 2022. This project is associated with Origins project number Y201074-01.

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 - Donovan D #02-30

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH-FS-01@6'	Y201074-01	Soil	January 5, 2022 8:30	01/05/2022 15:22

Origins Laboratory, Inc.



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

Jordan A. Merrill, Project Manager

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

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

**ORIGINS**  
LABORATORY, INC

www.originslaboratory.com

1201074

page 1 of 1

Client: Eagle Environmental Consulting  
Address: 8000 W 44th Ave  
Wheat Ridge CO 80033  
Telephone Number: 303-433-6474  
Email Address: mce@eagle-consult.com

Project Manager: Martin Eckert III  
Project Name: Donovan D #02-30  
Project Number: -  
Samples Collected By: BFW

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix		Analysis				Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	At Summa	Other	As	As	
014-PS-0106	11/5/22	0830	2 X					X		X	X	X	X	EL, SAZ, pH by
														Scheduled pickup
														pH
														NO <sub>3</sub> needed

Relinquished by: *Buye W* Date: 11/5/22 Time: 1522  
Relinquished by: *Buye W* Date: 11/5/22 Time: 1522

Received by: *Buye W* Date: 11/5/22 Time: 1522  
Received by: *Buye W* Date: 11/5/22 Time: 1522

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

Temp Received: 1.7

Date Results Needed: 11/5/22

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 - Donovan D #02-30

Origins Laboratory

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

**Sample Receipt Checklist**

Origins Work Order: 4201074 Client: Eagle  
Client Project ID: Donovan 2-30

Checklist Completed by: JH Shipped Via: 44D  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)  
Date/time completed: 1/5/12 Airbill #: KA

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

Cooler Number/Temperature: 1 / 1.4 °C / °C / °C (Describe) / °C

Thermometer ID: 1003

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 1-6-22

Origins Laboratory, Inc.

*Jordan A. Merrill*

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

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

WH-FS-01@6'

1/5/2022 8:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y201074-01 (Soil)

## Boron (DTPA Sorbitol)

Boron	ND	0.199	mg/L	1	B2A0612	01/06/2022	01/07/2022	
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## DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2A0502	01/05/2022	01/12/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	75.9 %	50-150		"	"	"
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## GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2A0603	01/06/2022	01/06/2022	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	6.31	0.200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	91.3 %	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: -  
Project: Noble - Donovan D #02-30

WH-FS-01@6'

1/5/2022 8:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y201074-01 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	99.3 %	70-130	B2A06 03	01/06/2022	01/06/2022
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

## Metals by Saturated Paste by EPA 6010

Calcium	2.22	0.499	meq/L	10	[CALC]	01/06/2022	01/07/2022
Magnesium	0.856	0.823	"	"	"	"	"
Sodium	3.60	0.435	"	"	"	"	"

## PAH by 8270D SIM

1-Methylnaphthalene	0.000534	0.00033	0.00067	mg/Kg	1	L593737	01/10/2022	01/10/2022	J
2-Methylnaphthalene	0.00102	0.00039	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.0003	0.00067	"	"	"	"	"	
Anthracene	ND	0.00033	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00041	0.00067	"	"	"	"	"	
Benzo(a)pyrene	0.00069	0.00024	0.00067	"	"	"	"	"	B
Benzo(b)fluoranthene	0.000613	0.00021	0.00067	"	"	"	"	"	JB
Benzo(k)fluoranthene	ND	0.00013	0.00067	"	"	"	"	"	
Chrysene	0.00101	0.00027	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00036	0.00067	"	"	"	"	"	
Fluoranthene	0.000424	0.00039	0.00067	"	"	"	"	"	J
Fluorene	ND	0.00029	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: -  
Project: Noble - Donovan D #02-30

WH-FS-01@6'

1/5/2022 8:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y201074-01 (Soil)

## PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	0.00086	0.00029	0.00067	mg/Kg	1	L593737	01/10/2022	01/10/2022	B
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	
Pyrene	ND	0.00059	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	61.5 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	58.7 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	43.4 %	29-110	"	"	"

## pH in Soil by 9045D

pH	7.96	pH Units	1	B2A0616	01/06/2022	01/07/2022
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## SAR by 20B Saturated Paste

SAR	2.91	SAR	1	B2A0609	01/06/2022	01/07/2022
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.909	0.00500	mmhos/cm	1	B2A0615	01/06/2022	01/07/2022
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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: -  
Project: Noble - Donovan D #02-30

**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 B2A0502 - EPA 3580</b>										
<b>Blank (B2A0502-BLK1)</b>					Prepared: 01/05/2022 Analyzed: 01/05/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	27		"	24.9		107	50-150			

Origins Laboratory, Inc.



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Jordan A. Merrill, Project Manager



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Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

**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 B2A0502 - EPA 3580

**LCS (B2A0502-BS1)**

Prepared: 01/05/2022 Analyzed: 01/05/2022

Diesel (C10-C28)	940	50.0	mg/kg	1000		94.0	70-130			
Residual Range Organics (C28-C40)	955	200	"	1000		95.5	70-130			
Surrogate: o-Terphenyl	61		"	49.8		122	50-150			

Origins Laboratory, Inc.



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Jordan A. Merrill, Project Manager

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8000 W 44th Ave  
Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

**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 B2A0502 - EPA 3580**

Matrix Spike (B2A0502-MS1)		Source: Y201052-01			Prepared: 01/05/2022 Analyzed: 01/05/2022					
Diesel (C10-C28)	934	50.0	mg/kg	1000	ND	93.4	70-130			
Residual Range Organics (C28-C40)	957	200	"	1000	ND	95.7	70-130			
Surrogate: o-Terphenyl	52		"	49.8		105	50-150			

Origins Laboratory, Inc.



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8000 W 44th Ave  
Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

**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 B2A0502 - EPA 3580**

Matrix Spike Dup (B2A0502-MSD1)		Source: Y201052-01			Prepared: 01/05/2022 Analyzed: 01/05/2022					
Diesel (C10-C28)	926	50.0	mg/kg	1000	ND	92.6	70-130	0.837	35	
Residual Range Organics (C28-C40)	942	200	"	1000	ND	94.2	70-130	1.54	35	
Surrogate: o-Terphenyl	53		"	49.8		107	50-150			

Origins Laboratory, Inc.



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Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

## 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 B2A0603 - EPA 5030 (soil)</b>										
<b>Blank (B2A0603-BLK1)</b>					Prepared: 01/06/2022 Analyzed: 01/06/2022					
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	0.10		"	0.125		82.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		94.8	70-130			

Origins Laboratory, Inc.



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8000 W 44th Ave  
Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A0603 - EPA 5030 (soil)</b>										
<b>LCS (B2A0603-BS1)</b>					Prepared: 01/06/2022 Analyzed: 01/06/2022					
1,2,4-Trimethylbenzene	0.105	0.00200	mg/kg	0.100		105	70-130			
Naphthalene	0.0954	0.0100	"	0.100		95.4	70-130			
1,3,5-Trimethylbenzene	0.105	0.00200	"	0.100		105	70-130			
Benzene	0.0964	0.00200	"	0.100		96.4	70-130			
Ethylbenzene	0.0990	0.00200	"	0.100		99.0	70-130			
m,p-Xylene	0.201	0.00400	"	0.200		101	70-130			
o-Xylene	0.102	0.00200	"	0.100		102	70-130			
Toluene	0.0995	0.00200	"	0.100		99.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.099		"	0.125		78.9	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.9	70-130			

Origins Laboratory, Inc.



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8000 W 44th Ave  
Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A0603 - EPA 5030 (soil)</b>										
<b>Matrix Spike (B2A0603-MS1)</b>		<b>Source: Y201082-01</b>			Prepared: 01/06/2022 Analyzed: 01/06/2022					
1,2,4-Trimethylbenzene	0.0898	0.00200	mg/kg	0.100	0.000920	88.9	70-130			
Naphthalene	0.0832	0.0100	"	0.100	0.00312	80.0	70-130			
1,3,5-Trimethylbenzene	0.0902	0.00200	"	0.100	0.000860	89.4	70-130			
Benzene	0.0853	0.00200	"	0.100	0.00184	83.4	70-130			
Ethylbenzene	0.0839	0.00200	"	0.100	0.000740	83.2	70-130			
m,p-Xylene	0.171	0.00400	"	0.200	0.00140	84.9	70-130			
o-Xylene	0.0878	0.00200	"	0.100	0.000880	86.9	70-130			
Toluene	0.0859	0.00200	"	0.100	ND	85.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		87.5	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.8	70-130			

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Project Number: -  
Project: Noble - Donovan D #02-30

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2A0603 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B2A0603-MSD1)</b>		<b>Source: Y201082-01</b>			Prepared: 01/06/2022 Analyzed: 01/06/2022					
1,2,4-Trimethylbenzene	0.0886	0.00200	mg/kg	0.100	0.000920	87.6	70-130	1.37	20	
Naphthalene	0.0856	0.0100	"	0.100	0.00312	82.5	70-130	2.89	20	
1,3,5-Trimethylbenzene	0.0885	0.00200	"	0.100	0.000860	87.6	70-130	1.97	20	
Benzene	0.0845	0.00200	"	0.100	0.00184	82.7	70-130	0.872	20	
Ethylbenzene	0.0825	0.00200	"	0.100	0.000740	81.7	70-130	1.78	20	
m,p-Xylene	0.167	0.00400	"	0.200	0.00140	82.9	70-130	2.29	20	
o-Xylene	0.0860	0.00200	"	0.100	0.000880	85.1	70-130	2.05	20	
Toluene	0.0846	0.00200	"	0.100	ND	84.6	70-130	1.43	20	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.7	70-130			

Origins Laboratory, Inc.



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8000 W 44th Ave  
Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

## Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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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 B2A0615 - NO PREP

##### Blank (B2A0615-BLK1)

Prepared: 01/06/2022 Analyzed: 01/07/2022

Specific Conductance (EC) 0.000900 0.00500 mmhos/cm

##### Duplicate (B2A0615-DUP1)

Source: Y201046-05

Prepared: 01/06/2022 Analyzed: 01/07/2022

Specific Conductance (EC) 4.31 0.00500 mmhos/cm 3.79 13.0 25

#### Batch B2A0616 - NO PREP

##### Duplicate (B2A0616-DUP1)

Source: Y201076-01

Prepared: 01/06/2022 Analyzed: 01/07/2022

pH 7.05 pH Units 7.32 3.76 25

Origins Laboratory, Inc.



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Jordan A. Merrill, Project Manager

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

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

**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 L593737 - 3550B**

MSD (L 88905-MSD-L593737)		Source: 88905			Prepared: 01/10/2022 Analyzed: 01/10/2022					
1-Methylnaphthalene	0.142	0.00033	mg/Kg	0.164	<0.000330	86.5	30-130	2.8	30	
Benzo(a)anthracene	0.134	0.00041	"	0.164	<0.000410	81.7	30-130	0.7	30	
Anthracene	0.131	0.00033	"	0.164	<0.000330	79.8	30-130	2.3	30	
Acenaphthene	0.13	0.0003	"	0.164	<0.000300	79.2	30-130	3.9	30	
Chrysene	0.0661	0.00027	"	0.164	0.000531	40.3	30-130	1.5	30	
2-Methylnaphthalene	0.141	0.00039	"	0.164	<0.000390	85.9	30-130	2.8	30	
Pyrene	0.13	0.00059	"	0.164	<0.000590	79.2	30-130	2.3	30	
Benzo(b)fluoranthene	0.126	0.00021	"	0.164	0.000589	76.8	30-130	1.6	30	
Naphthalene	0.133	0.000467	"	0.164	<0.000467	81	30-130	14.5	30	
Indeno(1,2,3-cd)pyrene	0.129	0.00029	"	0.164	0.000991	78	30-130	5.5	30	
Fluorene	0.127	0.00029	"	0.164	<0.000290	77.4	30-130	3.2	30	
Fluoranthene	0.136	0.00039	"	0.164	<0.000390	82.9	30-130	2.9	30	
Dibenz(a,h)anthracene	0.143	0.00036	"	0.164	<0.000360	87.1	30-130	1.4	30	
Benzo(k)fluoranthene	0.132	0.00013	"	0.164	0.000263	80.4	30-130	2.2	30	
Benzo(a)pyrene	0.156	0.00024	"	0.164	0.000937	94.5	30-130	6.6	30	
Surrogate: 4-Terphenyl-d14	58.3		"	0.329	227	58.3	33-122			
Surrogate: 2-Fluorobiphenyl	59.8		"	0.329	239	59.8	33-115			
Surrogate: Nitrobenzene-d5	49.2		"	0.329	187	49.2	29-110			

MS (L 88905-MS-L593737)		Source: 88905			Prepared: 01/10/2022 Analyzed: 01/10/2022					
Benzo(b)fluoranthene	0.124	0.00021	mg/Kg	0.166	0.000589	74.6	30-130			
Dibenz(a,h)anthracene	0.141	0.00036	"	0.166	<0.000360	84.9	30-130			
Pyrene	0.127	0.00059	"	0.166	<0.000590	76.5	30-130			
Naphthalene	0.115	0.000467	"	0.166	<0.000467	69.2	30-130			
Indeno(1,2,3-cd)pyrene	0.122	0.00029	"	0.166	0.000991	72.8	30-130			
Fluorene	0.123	0.00029	"	0.166	<0.000290	74	30-130			
Fluoranthene	0.132	0.00039	"	0.166	<0.000390	79.5	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: -  
Project: Noble - Donovan D #02-30

**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 L593737 - 3550B**

MS (L 88905-MS-L593737)		Source: 88905			Prepared: 01/10/2022 Analyzed: 01/10/2022					
2-Methylnaphthalene	0.137	0.00039	mg/Kg	0.166	<0.000390	82.5	30-130			
Benzo(a)pyrene	0.146	0.00024	"	0.166	0.000937	87.3	30-130			
Benzo(a)anthracene	0.133	0.00041	"	0.166	<0.000410	80.1	30-130			
Anthracene	0.128	0.00033	"	0.166	<0.000330	77.1	30-130			
Acenaphthene	0.125	0.0003	"	0.166	<0.000300	75.3	30-130			
Benzo(k)fluoranthene	0.129	0.00013	"	0.166	0.000263	77.7	30-130			
1-Methylnaphthalene	0.138	0.00033	"	0.166	<0.000330	83.1	30-130			
Chrysene	0.0671	0.00027	"	0.166	0.000531	40.4	30-130			
Surrogate: Nitrobenzene-d5	56.3		"	0.332	181	56.3	29-110			
Surrogate: 4-Terphenyl-d14	63.2		"	0.332	221	63.2	33-122			
Surrogate: 2-Fluorobiphenyl	66.8		"	0.332	239	66.8	33-115			

LCS (LCS-L593737)		Prepared: 01/10/2022 Analyzed: 01/10/2022								
Dibenz(a,h)anthracene	0.147	0.00036	mg/Kg	0.167		88	30-130			
Fluoranthene	0.13	0.00039	"	0.167		77.8	30-130			
Fluorene	0.123	0.00029	"	0.167		73.6	30-130			
Indeno(1,2,3-cd)pyrene	0.13	0.00029	"	0.167		77.8	30-130			
Naphthalene	0.114	0.000467	"	0.167		68.2	30-130			
Pyrene	0.125	0.00059	"	0.167		74.8	30-130			
Acenaphthene	0.124	0.0003	"	0.167		74.2	30-130			
Chrysene	0.13	0.00027	"	0.167		77.8	30-130			
Benzo(b)fluoranthene	0.115	0.00021	"	0.167		68.8	30-130			
Benzo(a)pyrene	0.155	0.00024	"	0.167		92.8	30-130			
Anthracene	0.126	0.00033	"	0.167		75.4	30-130			
2-Methylnaphthalene	0.135	0.00039	"	0.167		80.8	30-130			
1-Methylnaphthalene	0.136	0.00033	"	0.167		81.4	30-130			
Benzo(a)anthracene	0.133	0.00041	"	0.167		79.6	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: -  
Project: Noble - Donovan D #02-30

**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 L593737 - 3550B</b>										
<b>LCS (LCS-L593737)</b>					Prepared: 01/10/2022 Analyzed: 01/10/2022					
Benzo(k)fluoranthene	0.143	0.00013	mg/Kg	0.167		85.6	30-130			
Surrogate: Nitrobenzene-d5	57.6		"	0.333		57.6	29-110			
Surrogate: 4-Terphenyl-d14	63.9		"	0.333		63.9	33-122			
Surrogate: 2-Fluorobiphenyl	67.8		"	0.333		67.8	33-115			
<b>LRB (LRB-L593737)</b>					Prepared: 01/10/2022 Analyzed: 01/10/2022					
Pyrene	ND	0.00067	mg/Kg				-			
Dibenz(a,h)anthracene	0.000461	0.00067	"				-			J
Fluoranthene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	0.000585	0.00067	"				-			J
Chrysene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Benzo(b)fluoranthene	0.000381	0.00067	"				-			J
Benzo(a)pyrene	0.000468	0.00067	"				-			J
Anthracene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	84.9		"	0.333		84.9	29-110			
Surrogate: 4-Terphenyl-d14	120		"	0.333		120	33-122			
Surrogate: 2-Fluorobiphenyl	119		"	0.333		119	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: -  
Project: Noble - Donovan D #02-30

### Notes and Definitions

- U Sample is Non-Detect.
- JB [Undefined]
- 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.



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May 03, 2022

Eagle Environmental Consulting, Inc.

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Donovan D #02-30

Project Number - -

Attached are your analytical results for Noble - Donovan D #02-30 received by Origins Laboratory, Inc. April 22, 2022. This project is associated with Origins project number Y204540-01.

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 - Donovan D #02-30

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL-SS-01@3'	Y204540-01	Soil	April 22, 2022 11:07	04/22/2022 14:15
FL-SS-02@3'	Y204540-02	Soil	April 22, 2022 12:30	04/22/2022 14:15

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: -  
Project: Noble - Donovan D #02-30

Origins Laboratory

## Sample Receipt Checklist

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

Origins Work Order: Y204540

Client: Eagle

Client Project ID: Donovan D 02-30

Checklist Completed by: SG

Shipped Via: HD

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

Date/time completed: 4/25/22

Airbill #: N/A

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

Water

Other:

Cooler Number/Temperature: 1 / 0.6 °C / °C / °C / °C (Describe)

Thermometer ID: T004

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

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

Reviewed by JB (Project Manager)

4-26-22  
Date/Time Reviewed

Origins Laboratory, Inc.

*J. Bynon*

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

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

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

FL-SS-01@3'

4/22/2022 11:07:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y204540-01 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	0.480	0.100	mg/L	1	B2D2517	04/25/2022	04/26/2022	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2D2602	04/26/2022	04/28/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	83.4 %	50-150			"	"	"
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2D2525	04/25/2022	04/26/2022	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	104 %	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: -  
Project: Noble - Donovan D #02-30

FL-SS-01@3'

4/22/2022 11:07:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y204540-01 (Soil)**

**GBTEX+TMBs by 8260D**

Surrogate: Toluene-d8	102 %		70-130			B2D25 25	04/25/2022	04/26/2022	
Surrogate: 4-Bromofluorobenzene	95.9 %		70-130			"	"	"	

**Metals by Saturated Paste by EPA 6010**

Calcium	3.10		0.499	meq/L	10	[CALC]	04/26/2022	04/27/2022	
Magnesium	0.938		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

**PAH by 8270D SIM**

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L612949	04/27/2022	04/28/2022	
2-Methylnaphthalene	0.000682	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	0.000522	0.000468	0.00067	"	"	"	"	"	J
Benzo(b)fluoranthene	ND	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	0.000497	0.000437	0.00067	"	"	"	"	"	J
Chrysene	ND	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	0.00119	0.000394	0.00067	"	"	"	"	"	
Fluorene	0.000592	0.000286	0.00067	"	"	"	"	"	J

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: -  
Project: Noble - Donovan D #02-30

FL-SS-01@3'

4/22/2022 11:07:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y204540-01 (Soil)

## PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	ND	0.000627	0.00067	mg/Kg	1	L612949	04/27/2022	04/28/2022
Naphthalene	0.00083	0.000484	0.00067	"	"	"	"	"
Pyrene	0.00101	0.000643	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	48.5 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	62.7 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	55.5 %		29-110			"	"	"

## pH in Soil by 9045D

pH	7.82			pH Units	1	B2D2606	04/26/2022	04/27/2022
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## SAR by 20B Saturated Paste

SAR	0.116			SAR	1	B2D2604	04/26/2022	04/27/2022
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.451		0.00500	mmhos/cm	1	B2D2607	04/26/2022	04/27/2022
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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: -  
Project: Noble - Donovan D #02-30

FL-SS-02@3'

4/22/2022 12:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y204540-02 (Soil)**

**Boron (DTPA Sorbitol)**

Boron	1.02	0.100	mg/L	1	B2D2605	04/26/2022	04/27/2022	
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**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2D2602	04/26/2022	04/28/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	57.5 %	50-150			"	"	"	
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**GBTEX+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2D2525	04/25/2022	04/26/2022	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	109 %	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: -  
Project: Noble - Donovan D #02-30

FL-SS-02@3'

4/22/2022 12:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y204540-02 (Soil)

## GBTEX+TMBs by 8260D

Surrogate: Toluene-d8	102 %		70-130			B2D25 25	04/25/2022	04/26/2022	
Surrogate: 4-Bromofluorobenzene	97.2 %		70-130			"	"	"	

## Metals by Saturated Paste by EPA 6010

Calcium	4.42		0.499	meq/L	10	[CALC]	04/26/2022	04/27/2022	
Magnesium	1.67		0.823	"	"	"	"	"	
Sodium	0.605		0.435	"	"	"	"	"	

## PAH by 8270D SIM

1-Methylnaphthalene	ND	0.000364	0.00067	mg/Kg	1	L612949	04/27/2022	04/28/2022	
2-Methylnaphthalene	ND	0.000645	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.000304	0.00067	"	"	"	"	"	
Anthracene	ND	0.000334	0.00067	"	"	"	"	"	
Benzo(a)anthracene	0.000811	0.000493	0.00067	"	"	"	"	"	
Benzo(a)pyrene	0.00103	0.000468	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	0.000922	0.000585	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	0.00155	0.000437	0.00067	"	"	"	"	"	
Chrysene	0.000923	0.000624	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	0.00112	0.000614	0.00067	"	"	"	"	"	
Fluoranthene	0.000973	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: -  
Project: Noble - Donovan D #02-30

FL-SS-02@3'

4/22/2022 12:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.  
Y204540-02 (Soil)

## PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	0.00066	0.000627	0.00067	mg/Kg	1	L612949	04/27/2022	04/28/2022	J
Naphthalene	ND	0.000484	0.00067	"	"	"	"	"	
Pyrene	0.00101	0.000643	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	45.8 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	57.2 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	52.1 %	29-110	"	"	"

## pH in Soil by 9045D

pH	7.47	pH Units	1	B2D2606	04/26/2022	04/27/2022
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## SAR by 20B Saturated Paste

SAR	0.347	SAR	1	B2D2604	04/26/2022	04/27/2022
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## Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.751	0.00500	mmhos/cm	1	B2D2607	04/26/2022	04/27/2022
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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: -  
Project: Noble - Donovan D #02-30

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2D2525 - EPA 5030 (soil)</b>										
<b>Blank (B2D2525-BLK1)</b>					Prepared: 04/25/2022 Analyzed: 04/26/2022					
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	101		70-130			
Surrogate: Toluene-d8	0.13		"	0.125	103		70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125	93.5		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: -  
Project: Noble - Donovan D #02-30

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2D2525 - EPA 5030 (soil)</b>										
<b>LCS (B2D2525-BS1)</b>					Prepared: 04/25/2022 Analyzed: 04/26/2022					
1,2,4-Trimethylbenzene	0.104	0.00200	mg/kg	0.100		104	70-130			
1,3,5-Trimethylbenzene	0.103	0.00200	"	0.100		103	70-130			
Benzene	0.103	0.00200	"	0.100		103	70-130			
Ethylbenzene	0.102	0.00200	"	0.100		102	70-130			
Naphthalene	0.102	0.0100	"	0.100		102	70-130			
Toluene	0.114	0.00200	"	0.100		114	70-130			
o-Xylene	0.102	0.00200	"	0.100		102	70-130			
m,p-Xylene	0.205	0.00400	"	0.200		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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**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 B2D2525 - EPA 5030 (soil)**

Matrix Spike (B2D2525-MS1)		Source: Y204538-01			Prepared: 04/25/2022 Analyzed: 04/26/2022					
1,2,4-Trimethylbenzene	0.111	0.00200	mg/kg	0.100	ND	111	70-130			
1,3,5-Trimethylbenzene	0.112	0.00200	"	0.100	ND	112	70-130			
Benzene	0.102	0.00200	"	0.100	0.000400	102	70-130			
Ethylbenzene	0.116	0.00200	"	0.100	ND	116	70-130			
Naphthalene	0.0804	0.0100	"	0.100	ND	80.4	70-130			
Toluene	0.119	0.00200	"	0.100	ND	119	70-130			
o-Xylene	0.112	0.00200	"	0.100	ND	112	70-130			
m,p-Xylene	0.231	0.00400	"	0.200	0.000560	115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		89.5	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		105	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

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Jordan A. Bynon, Project Manager

Eagle Environmental Consulting, Inc.  
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Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2D2525 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B2D2525-MSD1)</b>		<b>Source: Y204538-01</b>			Prepared: 04/25/2022 Analyzed: 04/26/2022					
1,2,4-Trimethylbenzene	0.101	0.00200	mg/kg	0.100	ND	101	70-130	9.18	20	
1,3,5-Trimethylbenzene	0.101	0.00200	"	0.100	ND	101	70-130	10.3	20	
Benzene	0.102	0.00200	"	0.100	0.000400	101	70-130	0.255	20	
Ethylbenzene	0.103	0.00200	"	0.100	ND	103	70-130	11.6	20	
Naphthalene	0.0858	0.0100	"	0.100	ND	85.8	70-130	6.50	20	
Toluene	0.113	0.00200	"	0.100	ND	113	70-130	5.88	20	
o-Xylene	0.103	0.00200	"	0.100	ND	103	70-130	9.25	20	
m,p-Xylene	0.207	0.00400	"	0.200	0.000560	103	70-130	11.2	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.9	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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Project Number: -  
Project: Noble - Donovan D #02-30

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2D2602 - EPA 3550B										
Blank (B2D2602-BLK1)					Prepared: 04/26/2022 Analyzed: 04/27/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	22		"	24.9		87.0	50-150			

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Project Number: -  
Project: Noble - Donovan D #02-30

**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 B2D2602 - EPA 3550B

**LCS (B2D2602-BS1)**

Prepared: 04/26/2022 Analyzed: 04/27/2022

Diesel (C10-C28)	870	50.0	mg/kg	1000		87.0	70-130			
Residual Range Organics (C28-C40)	927	200	"	1000		92.7	70-130			
Surrogate: o-Terphenyl	39		"	49.8		77.7	50-150			

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Jordan A. Bynon, Project Manager

Eagle Environmental Consulting, Inc.  
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Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

**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 B2D2602 - EPA 3550B**

Matrix Spike (B2D2602-MS1)		Source: Y204454-01			Prepared: 04/26/2022 Analyzed: 04/27/2022					
Diesel (C10-C28)	920	50.0	mg/kg	1000	ND	92.0	70-130			
Residual Range Organics (C28-C40)	970	200	"	1000	ND	97.0	70-130			
Surrogate: o-Terphenyl	42		"	49.8		84.3	50-150			

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Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

**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 B2D2602 - EPA 3550B										
Matrix Spike Dup (B2D2602-MSD1)		Source: Y204454-01			Prepared: 04/26/2022 Analyzed: 04/27/2022					
Diesel (C10-C28)	860	50.0	mg/kg	1000	ND	86.0	70-130	6.73	35	
Residual Range Organics (C28-C40)	949	200	"	1000	ND	94.9	70-130	2.18	35	
Surrogate: o-Terphenyl	39		"	49.8		78.8	50-150			

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Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

## 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 B2D2606 - NO PREP

#### Duplicate (B2D2606-DUP1)

Source: Y204538-11

Prepared: 04/26/2022 Analyzed: 04/27/2022

pH	7.69		pH Units		7.69			0.00	25	
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### Batch B2D2607 - NO PREP

#### Blank (B2D2607-BLK1)

Prepared: 04/26/2022 Analyzed: 04/27/2022

Specific Conductance (EC)	0.00410	0.00500	mmhos/cm							
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#### Duplicate (B2D2607-DUP1)

Source: Y204538-11

Prepared: 04/26/2022 Analyzed: 04/27/2022

Specific Conductance (EC)	0.395	0.00500	mmhos/cm		0.405			2.57	25	
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Project Number: -  
Project: Noble - Donovan D #02-30

**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 L612949 - 3550B

MSD (L 88563-MSD-L612949)		Source: 88563			Prepared: 04/27/2022 Analyzed: 04/28/2022					
Naphthalene	0.0893	0.00242	mg/Kg	0.164	<0.00242	54.4	30-130	3.7	30	
Indeno(1,2,3-cd)pyrene	0.0584	0.00314	"	0.164	<0.00314	35.6	30-130	0.8	30	
Fluorene	0.0941	0.00143	"	0.164	<0.00143	57.3	30-130	2.8	30	
Benzo(k)fluoranthene	0.0959	0.00219	"	0.164	<0.00219	58.4	30-130	5.1	30	
Fluoranthene	0.0988	0.00197	"	0.164	<0.00197	60.2	30-130	5.8	30	
Dibenz(a,h)anthracene	0.0836	0.00307	"	0.164	<0.00307	50.9	30-130	7.4	30	
Chrysene	0.103	0.00312	"	0.164	<0.00312	62.8	30-130	3.5	30	
Pyrene	0.0993	0.00322	"	0.164	<0.00322	60.5	30-130	5.4	30	
2-Methylnaphthalene	0.0833	0.00323	"	0.164	<0.00323	50.7	30-130	0.8	30	
Benzo(a)pyrene	0.103	0.00234	"	0.164	<0.00234	62.8	30-130	4.6	30	
Benzo(a)anthracene	0.0954	0.00247	"	0.164	<0.00247	58.1	30-130	1.5	30	
Acenaphthene	0.093	0.00152	"	0.164	<0.00152	56.7	30-130	2.2	30	
1-Methylnaphthalene	0.0942	0.00182	"	0.164	<0.00182	57.4	30-130	0.3	30	
Benzo(b)fluoranthene	0.0661	0.00293	"	0.164	<0.00293	40.3	30-130	13.5	30	
Anthracene	0.0988	0.00167	"	0.164	<0.00167	60.2	30-130	1	30	
Surrogate: Nitrobenzene-d5	62.1		"	0.328	206	62.1	29-110			
Surrogate: 4-Terphenyl-d14	67		"	0.328	214	67	33-122			
Surrogate: 2-Fluorobiphenyl	52.7		"	0.328	171	52.7	33-115			

MS (L 88563-MS-L612949)		Source: 88563			Prepared: 04/27/2022 Analyzed: 04/28/2022					
Acenaphthene	0.0909	0.00152	mg/Kg	0.166	<0.00152	54.7	30-130			
2-Methylnaphthalene	0.084	0.00323	"	0.166	<0.00323	50.6	30-130			
Chrysene	0.0994	0.00312	"	0.166	<0.00312	59.8	30-130			
Anthracene	0.0978	0.00167	"	0.166	<0.00167	58.9	30-130			
1-Methylnaphthalene	0.0939	0.00182	"	0.166	<0.00182	56.5	30-130			
Naphthalene	0.086	0.00242	"	0.166	<0.00242	51.8	30-130			
Benzo(a)anthracene	0.0939	0.00247	"	0.166	<0.00247	56.5	30-130			

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Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

**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 L612949 - 3550B**

MS (L 88563-MS-L612949)		Source: 88563			Prepared: 04/27/2022 Analyzed: 04/28/2022					
Benzo(b)fluoranthene	0.0577	0.00293	mg/Kg	0.166	<0.00293	34.7	30-130			
Indeno(1,2,3-cd)pyrene	0.0579	0.00314	"	0.166	<0.00314	34.8	30-130			
Fluorene	0.0915	0.00143	"	0.166	<0.00143	55.1	30-130			
Fluoranthene	0.0932	0.00197	"	0.166	<0.00197	56.1	30-130			
Dibenz(a,h)anthracene	0.0901	0.00307	"	0.166	<0.00307	54.2	30-130			
Benzo(k)fluoranthene	0.101	0.00219	"	0.166	<0.00219	60.8	30-130			
Benzo(a)pyrene	0.0983	0.00234	"	0.166	<0.00234	59.2	30-130			
Pyrene	0.094	0.00322	"	0.166	<0.00322	56.6	30-130			
Surrogate: 4-Terphenyl-d14	65		"	0.332	214	65	33-122			
Surrogate: 2-Fluorobiphenyl	50.9		"	0.332	171	50.9	33-115			
Surrogate: Nitrobenzene-d5	58.7		"	0.332	206	58.7	29-110			

**LCS (LCS-L612949)**

Prepared: 04/27/2022 Analyzed: 04/28/2022

Anthracene	0.0953	0.000334	mg/Kg	0.167		57	30-130			
Benzo(b)fluoranthene	0.0781	0.000585	"	0.167		46.7	30-130			
Acenaphthene	0.0916	0.000304	"	0.167		54.8	30-130			
Pyrene	0.101	0.000643	"	0.167		60.4	30-130			
2-Methylnaphthalene	0.0884	0.000645	"	0.167		52.9	30-130			
1-Methylnaphthalene	0.0893	0.000364	"	0.167		53.4	30-130			
Benzo(a)pyrene	0.104	0.000468	"	0.167		62.2	30-130			
Chrysene	0.102	0.000624	"	0.167		61	30-130			
Dibenz(a,h)anthracene	0.106	0.000614	"	0.167		63.4	30-130			
Fluoranthene	0.102	0.000394	"	0.167		61	30-130			
Fluorene	0.0945	0.000286	"	0.167		56.5	30-130			
Indeno(1,2,3-cd)pyrene	0.0758	0.000627	"	0.167		45.3	30-130			
Naphthalene	0.0908	0.000484	"	0.167		54.3	30-130			
Benzo(a)anthracene	0.101	0.000493	"	0.167		60.4	30-130			

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Martin C Eckert III  
Project Number: -  
Project: Noble - Donovan D #02-30

**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 L612949 - 3550B</b>										
<b>LCS (LCS-L612949)</b>					Prepared: 04/27/2022 Analyzed: 04/28/2022					
Benzo(k)fluoranthene	0.108	0.000437	mg/Kg	0.167		64.6	30-130			
Surrogate: 2-Fluorobiphenyl	53.4		"	0.333		53.4	33-115			
Surrogate: Nitrobenzene-d5	62.4		"	0.333		62.4	29-110			
Surrogate: 4-Terphenyl-d14	68.7		"	0.333		68.7	33-122			
<b>LRB (LRB-L612949)</b>					Prepared: 04/27/2022 Analyzed: 04/28/2022					
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	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	59.7		"	0.333		59.7	29-110			
Surrogate: 4-Terphenyl-d14	69		"	0.333		69	33-122			
Surrogate: 2-Fluorobiphenyl	54		"	0.333		54	33-115			

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Project: Noble - Donovan D #02-30

### Notes and Definitions

U Sample is Non-Detect.

J Estimated Value. Analyte below reported quantitation limit.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

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Jordan A. Bynon, Project Manager