



EAGLE
ENVIRONMENTAL
CONSULTING, INC.

4101 Inca Street, Denver, CO 80211 • Phone: 303-433-0479 • Fax: 303-325-5449 • www.eagle-enviro.com

September 5, 2017

Mr. Jacob Evans
Noble Energy, Inc.
2115 117th Avenue
Greeley, Colorado 80631

Camenisch-UPRR #6-3
Water Vault Removal
40.344187 / -104.767608
SE¼ NW¼ SEC.3 T4N R66W 6PM
Weld County, Colorado
Location ID 332835

Dear Mr. Evans,

Eagle Environmental Consulting, Inc. (EAGLE) is pleased to present the results from the water vault removal at the Camenisch-UPRR #6-3 site (site).

On August 10, 2017, EAGLE collected soil samples following the water vault removal at the site. Per Noble Standard Operation Procedures, a soil sample was collected from each sidewall and from the floor for field screening. The sidewall soil sample with the highest photoionization detector (PID) reading (SS-03@2') and the floor soil sample (SS-05@4') were submitted for laboratory analysis.

Based on laboratory analytical results, the soil samples did not contain concentrations of benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, or total petroleum hydrocarbons (TPH) exceeding Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 regulatory limits. Additionally, the sidewall soil sample's (SS-03@2') specific conductance, pH, and sodium adsorption ratio (SAR) were within COGCC Table 910-1 regulatory limits.

EAGLE sincerely appreciates the opportunity to provide our services. If you have any questions or require further information, please contact us at (303) 433-0479.

Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Robin Lockwood
Project Scientist

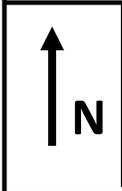
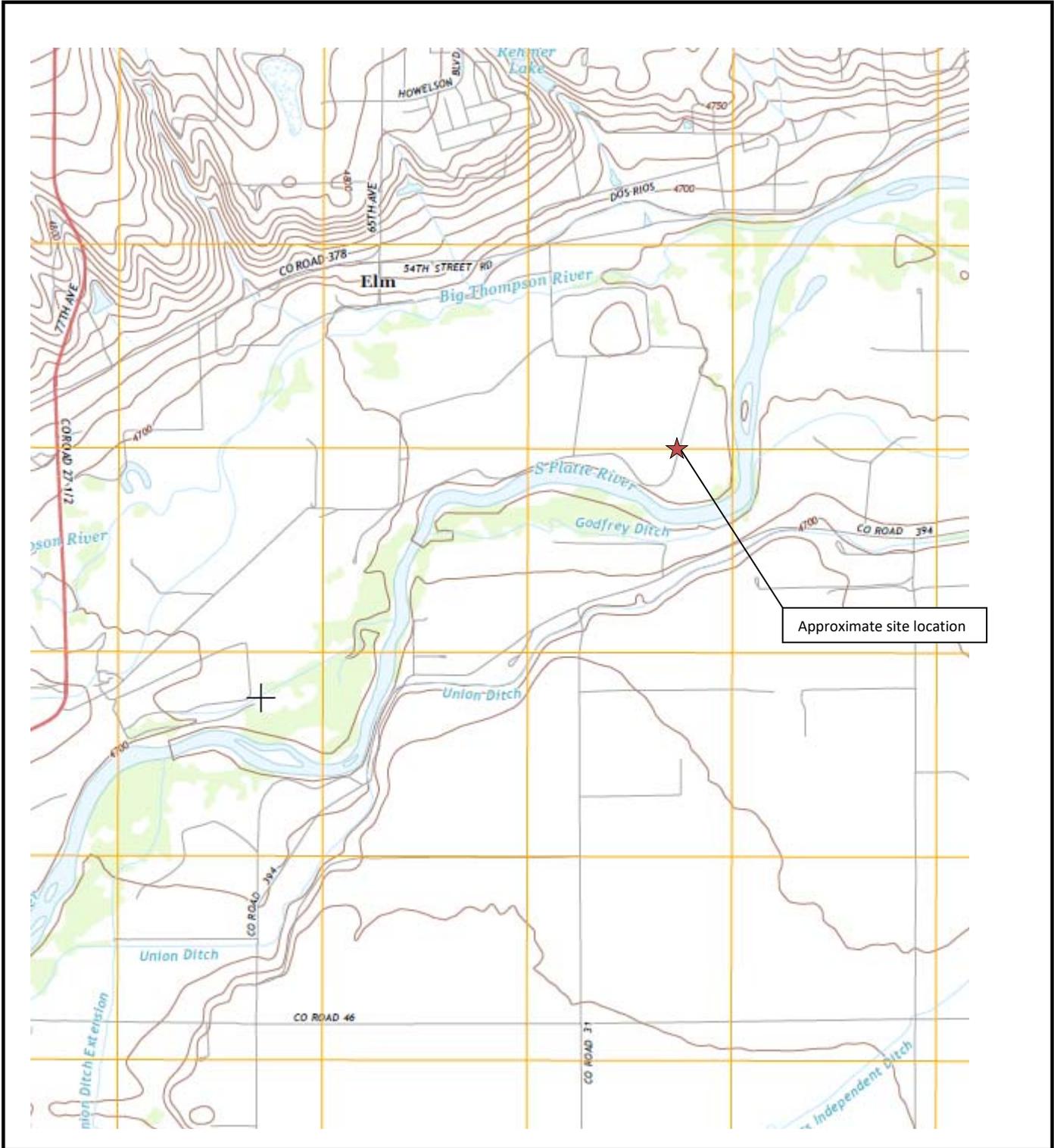


FIGURES

Figure 1: Topographic Site Location Map

Figure 2: Aerial Site Location Map

Figure 3: Soil Analytical Map



Topographic Site Location Map
 Camenisch-UPRR #6-3
 Water Vault Removal
 40.344187 / -104.767608
 SE1/4 NW1/4 SEC.3 T4N R66W 6PM
 Weld County, Colorado
 Location ID 332835



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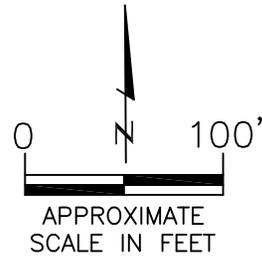
Source: USGS 7.5 Minute Topographic Map, Milliken, CO Quadrangle 2013

Figure 1



LEGEND

- CAMENISCH-UPRR #6-3 TANK BATTERY/FACILITIES
- CAMENISCH-UPRR #6-3 WELL HEAD
- APPROXIMATE LOCATION OF WATER VAULT REMOVAL



AERIAL SITE LOCATION MAP
 CAMENISCH-UPRR #6-3
 WATER VAULT REMOVAL
 40.344187 / -104.767608
 SE1/4 NW1/4 SEC.3 T4N R66W 6PM
 WELD COUNTY, COLORADO
 LOCATION ID 332835

DATE: 08/14/17

FIG. NO.
2

DRAWN BY:
sgv



EAGLE

ENVIRONMENTAL
CONSULTING, INC.

4101 INCA STREET, DENVER, CO 80211
Ph: 303-433-0479 • F: 303-325-5449



SS-05@4'
08/10/17
4'
B = <0.002
T = <0.002
E = <0.002
X = <0.002
N = <0.007
G = <0.200
D = <50.0

SS-03@2'
08/10/17
2'
B = <0.002
T = <0.002
E = <0.002
X = <0.002
N = <0.007
G = 0.276
D = <50.0

LEGEND

- APPROXIMATE EXCAVATION BOUNDARIES
- SS-01 APPROXIMATE LOCATION OF SOIL SAMPLES FIELD ANALYZED WITH PHOTOIONIZATION DETECTOR (PID)
- SS-02 APPROXIMATE LOCATION OF SOIL SAMPLES SUBMITTED FOR LABORATORY ANALYSIS

PARAMETERS

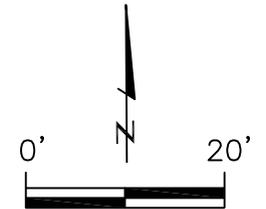
SAMPLE LOCATION
DATE
DEPTH (FEET)
B = BENZENE (mg/kg)
T = TOLUENE (mg/kg)
E = ETHYLBENZENE (mg/kg)
X = TOTAL XYLENES (mg/kg)
N = NAPHTHALENE (mg/kg)
G = TPH-GRO (mg/kg)
D = TPH-DRO (mg/kg)

mg/kg = MILLIGRAMS PER KILOGRAM

TPH-GRO = TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE ORGANICS

TPH-DRO = TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE ORGANICS

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



APPROXIMATE SCALE IN FEET

SOIL ANALYTICAL MAP
CAMENISCH-UPRR #6-3
WATER VAULT REMOVAL
40.344187 / -104.767608
SE1/4 NW1/4 SEC.3 T4N R66W 6PM
WELD COUNTY, COLORADO
LOCATION ID 332835

DATE:
08/23/17
DRAWN BY:
amn
FIG.
NO. 3



EAGLE
ENVIRONMENTAL
CONSULTING, INC.
4101 INCA STREET, DENVER, CO 80211
Ph: 303-433-0479 • F: 303-325-5449



ATTACHMENT A

Laboratory Analytical Report



August 17, 2017

Eagle Environmental Consulting, Inc.

Martin C Eckert III

4101 Inca Street

Denver

CO 80211

Project Name - Noble - Camenisch UPRR 06-03

Project Number - [none]

Attached are your analytical results for Noble - Camenisch UPRR 06-03 received by Origins Laboratory, Inc. August 10, 2017. This project is associated with Origins project number Y708121-01.

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.
4101 Inca Street
Denver CO 80211

Martin C Eckert III
Project Number: [none]
Project: Noble - Camenisch UPRR 06-03

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-03@2'	Y708121-01	Soil	August 10, 2017 10:35	08/10/2017 16:10
SS-05@4'	Y708121-02	Soil	August 10, 2017 10:45	08/10/2017 16:10

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.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Camenisch UPRR 06-03

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 708121

Client: Eagle Env

Client Project ID: Noble - Camenisch UPRR 06-03

Checklist Completed by: Dan Lee

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

Date/time completed: 8-12-17 16:13

Airbill #: N/A

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

Cooler Number/Temperature: 19.9 °C _____ °C _____ °C _____ °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 ⁽¹⁾ ?		<input checked="" type="checkbox"/>		sampled same Day
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 type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>			pH
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input 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 ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)		<input checked="" type="checkbox"/>		
Additional Comments (if any):				

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

Reviewed by [Signature] (Project Manager)

8/11/17
 Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Camenisch UPRR 06-03

SS-03@2'
8/10/2017 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y708121-01 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	ND	50.0	mg/kg	1	B7H1106	08/11/2017	08/11/2017	U
<i>Surrogate: o-Terphenyl</i>	84.6 %	59-131			"	"	"	

GBTEX + Napthalene by 8260C

Gasoline Range Hydrocarbons	0.276	0.200	mg/kg	1	B7H1105	08/11/2017	08/16/2017	
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U
Napthalene	ND	0.007	"	"	"	"	"	U

<i>Surrogate: 1,2-Dichloroethane-d4</i>	103 %	70-130			"	"	"	
<i>Surrogate: Toluene-d8</i>	95.6 %	70-130			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	104 %	70-130			"	"	"	

Metals (Saturated Paste Prep)

Calcium	2.13		me/L	1	'[none]'	08/11/2017	08/14/2017	
Magnesium	0.92		"	"	"	"	"	
Sodium	0.32		"	"	"	"	"	

pH in Soil by EPA 9045D

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.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Camenisch UPRR 06-03

SS-03@2'
8/10/2017 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y708121-01 (Soil)

pH in Soil by EPA 9045D

pH	6.20		pH Units	1	B7H1604	08/16/2017	08/16/2017	
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SAR by 20B Saturated Paste

SAR	0.26			1	'[none]'	08/11/2017	08/14/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.00350		mmhos/cm	1	B7H1605	08/16/2017	08/16/2017	
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Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Camenisch UPRR 06-03

SS-05@4'
 8/10/2017 10:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 Y708121-02 (Soil)

Diesel Range Organics (DRO/TEPH) by EPA 8015C

Diesel (C10-C28)	ND	50.0	mg/kg	1	B7H1106	08/11/2017	08/11/2017	U
<i>Surrogate: o-Terphenyl</i>	84.6 %	59-131			"	"	"	

GBTEX + Napthalene by 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7H1105	08/11/2017	08/11/2017	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U
Napthalene	ND	0.007	"	"	"	"	"	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>	109 %	70-130			"	"	"	
<i>Surrogate: Toluene-d8</i>	97.6 %	70-130			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	106 %	70-130			"	"	"	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Camenisch UPRR 06-03

Volatile Organic Compounds by GC/MS SW846 8260C - 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 B7H1105 - EPA 5030 (soil)

Blank (B7H1105-BLK1)

Prepared: 08/11/2017 Analyzed: 08/11/2017

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Naphthalene	ND	0.007	"							U
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.3	70-130			

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Camenisch UPRR 06-03

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

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

Batch B7H1105 - EPA 5030 (soil)

LCS (B7H1105-BS1)

Prepared: 08/11/2017 Analyzed: 08/11/2017

Benzene	0.097	0.002	mg/kg	0.100		97.1	70-130			
Toluene	0.095	0.002	"	0.100		95.3	70-130			
Ethylbenzene	0.099	0.002	"	0.100		99.4	70-130			
m,p-Xylene	0.199	0.004	"	0.200		99.7	70-130			
o-Xylene	0.102	0.002	"	0.100		102	70-130			
Naphthalene	0.097	0.007	"	0.100		97.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.3	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.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Camenisch UPRR 06-03

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

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

Batch B7H1105 - EPA 5030 (soil)

Matrix Spike (B7H1105-MS1)	Source: Y708120-03			Prepared: 08/11/2017 Analyzed: 08/11/2017						
Benzene	0.095	0.002	mg/kg	0.100	ND	95.2	70-130			
Toluene	0.097	0.002	"	0.100	ND	97.0	70-130			
Ethylbenzene	0.101	0.002	"	0.100	0.0009	100	70-130			
m,p-Xylene	0.203	0.004	"	0.200	ND	101	70-130			
o-Xylene	0.102	0.002	"	0.100	ND	102	70-130			
Naphthalene	0.096	0.007	"	0.100	0.003	92.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		103	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.2	70-130			

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Camenisch UPRR 06-03

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

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

Batch B7H1105 - EPA 5030 (soil)

Matrix Spike Dup (B7H1105-MSD1)	Source: Y708120-03			Prepared: 08/11/2017 Analyzed: 08/11/2017						
Benzene	0.098	0.002	mg/kg	0.100	ND	97.9	70-130	2.82	20	
Toluene	0.096	0.002	"	0.100	ND	96.5	70-130	0.599	20	
Ethylbenzene	0.099	0.002	"	0.100	0.0009	98.4	70-130	2.05	20	
m,p-Xylene	0.198	0.004	"	0.200	ND	98.9	70-130	2.46	20	
o-Xylene	0.099	0.002	"	0.100	ND	99.1	70-130	3.22	20	
Naphthalene	0.099	0.007	"	0.100	0.003	95.8	70-130	2.98	20	
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.8	70-130			

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Camenisch UPRR 06-03

Volatile Organic Compounds by GC/MS SW846 8260C - 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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Extractable Petroleum Hydrocarbons by 8015C - 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 B7H1106 - EPA 3550B

Blank (B7H1106-BLK1)

Prepared: 08/11/2017 Analyzed: 08/11/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
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Surrogate: o-Terphenyl

50			"	50.0		99.4	59-131			
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LCS (B7H1106-BS1)

Prepared: 08/11/2017 Analyzed: 08/11/2017

Diesel (C10-C28)	1070	50.0	mg/kg	1000		107	64-121			
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Surrogate: o-Terphenyl

50			"	50.0		101	59-131			
----	--	--	---	------	--	-----	--------	--	--	--

Matrix Spike (B7H1106-MS1)

Source: Y708120-03

Prepared: 08/11/2017 Analyzed: 08/11/2017

Diesel (C10-C28)	1010	50.0	mg/kg	1000	ND	101	53-125			
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Surrogate: o-Terphenyl

49			"	50.0		97.3	59-131			
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Matrix Spike Dup (B7H1106-MSD1)

Source: Y708120-03

Prepared: 08/11/2017 Analyzed: 08/11/2017

Diesel (C10-C28)	1010	50.0	mg/kg	1000	ND	101	53-125	0.430	20	
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Surrogate: o-Terphenyl

48			"	50.0		96.9	59-131			
----	--	--	---	------	--	------	--------	--	--	--

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Camenisch UPRR 06-03

Classical Chemistry Parameters - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B7H1604 - NO PREP										
Duplicate (B7H1604-DUP1)		Source: Y708121-01			Prepared: 08/16/2017 Analyzed: 08/16/2017					
pH	6.12		pH Units		6.20			1.30	25	
Batch B7H1605 - NO PREP										
Blank (B7H1605-BLK1)		Prepared: 08/16/2017 Analyzed: 08/16/2017								
Specific Conductance (EC)	0.00340		mmhos/cm							
Duplicate (B7H1605-DUP1)		Source: Y708121-01			Prepared: 08/16/2017 Analyzed: 08/16/2017					
Specific Conductance (EC)	0.00450		mmhos/cm		0.00350			25.0	25	

Origins Laboratory, Inc.



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Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Martin C Eckert III
Project Number: [none]
Project: Noble - Camenisch UPRR 06-03

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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

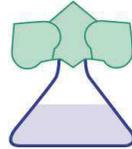
Jen Pellegrini For Noelle Doyle Mathis, President

American Agricultural Laboratory, Inc.

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Office: 308-345-3670 / FAX: 308-345-7880

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95029

ORIGINS LABORATORY INC

1725 ELK PLACE

DENVER CO 80211

NAME : ORIGINS

DATE RECEIVED: 08/11/2017

DATE REPORTED: 08/15/2017

SOIL TEST RESULTS

LAB NUMBER	FIELD IDENTIFICATION	SAMPLE IDENTIFICATION	Depth Inches	pH		EL	SOLUBLE SALTS mod. SP mmhos/cm	OM LOI %	NITRATE-N (FIA)		PHOSPHORUS						
				1 : 1 Soil	Buffer Woodruff				ppm	lbs/A	P1 ppm	Bicarb ppm	P2 ppm	M2 ppm	M3 ppm		
2486320	Y708121	01	0-8														

LAB NUMBER	SULFATE-S Ca-P ppm	NH4OAc (Exchangeable)				DTPA				BORON Sorbitol ppm	EST. CATION EXCHANGE CAPACITY (CEC) me/100g	% SATURATION						
		K ppm	Ca ppm	Mg ppm	Na ppm	Zn ppm	Fe ppm	Mn ppm	Cu ppm			BASE	H	Ca	Mg	K	Na	
2486320																		

LAB NUMBER	SOLUBLE (SAT. EXT.)			SODIUM ADSORPTION RATIO (SAR)	EXCH. SODIUM PERCENT (ESP)	GYPSUM REQ T/A	PARTICLE SIZE ANALYSIS				CHLORIDE ppm	EXCH. NH4-N ppm	ALUMINUM ppm	TOTAL N %
	Ca me/L	Mg me/L	Na me/L				SAND %	SILT %	CLAY %	SOIL TEXTURE				
2486320	2.13	0.92	0.32	0.26	1	0								

SUGGESTED FERTILIZER RECOMMENDATIONS

LAB NUMBER	FIELD IDENTIFICATION	SAMPLE IDENTIFICATION	CROP TO BE GROWN	YIELD GOAL	N	P2O5	K2O	S	Zn	MgO	Fe	Mn	Cu	B	Cl	LIME REC 60% ECCE T/A
2486320	Y708121	01								lbs/A						

Analysis By: American Agricultural Lab

Recommendations By: American Agricultural Lab



Your Lab's letterhead here...

Address

City, St. Zip

Phone/Fax

SUBCONTRACT ORDER

Sending Laboratory:

Origins Laboratory, Inc.
 1725 West Elk Place
 Denver, CO 80211
 Phone: 303.433.1322
 Fax: 303.265.9645

Project Manager: Noelle Doyle Mathis

Subcontracted Laboratory:

American Agricultural Laboratory, Inc
 210 East 1st Street
 McCook, NE 69001
 Phone: (308) 345-3670
 Fax: (308) 345-7880

Work Order: Y708121

Analysis	Due	Expires	Comments
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Sample ID: Y708121-01 *Soil* *Sampled: 08/10/2017 10:35*

SAR (Saturated Paste Prep) 08/17/2017 08/11/2017 10:35

Containers Supplied:

238



 Released By 8-10-17
 Date

Karen Stewart 8-11-17
 Received By Date