



October 8, 2015

Mr. Jacob Evans
Noble Energy, Inc.
1600 Broadway, Suite 2200
Denver, Colorado 80202

**RE: Assessment Report
 Foss #6-43, 43, 45
 Produced Water Release
 40.514377 / -104.476179
 NW¼ SE¼ SEC.6 T6N R63W 6PM
 Weld County, Colorado
 API # 05-123-24288, 05-123-24293, 05-123-24289**

Dear Mr. Evans,

Eagle Environmental Consulting, Inc. (EAGLE) is pleased to present this Assessment Report for the above referenced site.

1.0 SITE BACKGROUND

EAGLE was requested by Noble Energy, Inc. (Noble) to perform subsurface assessment activities at the site following removal of the water vaults associated with the Foss #6-42, 6-43, and 6-45 wells. On June 2, 2015, EAGLE advanced two soil borings, SB-01 and SB-02, adjacent to the dump lines and previous removed water vault locations.

Groundwater was observed in each boring at approximately 3 feet below ground surface (bgs). Soil and groundwater samples were collected from each soil boring and submitted to Origins Laboratory (Origins) in Denver, Colorado for laboratory analysis. Based on laboratory analytical results, the groundwater sample collected from SB-01 (GW-01) exceeded the Colorado Oil and Gas Conservation Commission's (COGCC's) Table 910-1 regulatory limit for benzene.

Per Noble's request, EAGLE advanced two additional soil borings (SB-03 and SB-04) within the locations of the previously removed production tanks associated with the Foss #6-42, 6-43, and 6-45 wells on June 9, 2015.

The following narrative details the assessment activities that were completed at the site.

2.0 SITE DESCRIPTION

The Foss #6-42, 6-43, and 6-45 site is located within the northwest quarter of the southeast quarter of Section 6, Township 6 north, Range 63 west of the 6th Prime Meridian. The removed facilities onsite were located at latitude: 40.514377 and longitude: -104.476179. A topographic site location map is presented as Figure 1. An aerial site location map is presented in Figure 2.

2.1 Site Hydrogeology

The soil lithology observed beneath the release location, consists of a loose, sandy silt from the surface to approximately 1 foot bgs, underlain by a soft, sandy clay from 1 foot bgs to approximately 4 feet bgs and fine to medium grained clayey sand from 4 feet bgs to approximately 5 feet bgs. Depth to groundwater was observed during assessment activities at a depth of approximately 3 feet bgs. A detailed description of subsurface lithology beneath the site is presented within the borings logs included in Attachment A.

3.0 ASSESSMENT ACTIVITIES

Following removal of the water vaults and production tanks associated with the Foss #6-42, 6-43, and 6-45 wells, EAGLE advanced four soil borings (SB-01 through SB-04) to determine if petroleum hydrocarbon impacts exceeding COGCC Table 910-1 regulatory limits existed in the soil and groundwater beneath the site. .

3.1 Field Work Preparation and Planning

The Utility Notification Center of Colorado (UNCC) was called at least 48 hours in advance of hand auger activities to confirm that no unmarked utilities or other obstacles were present within the proposed drilling locations. Tier II facility owners were also contacted to confirm the necessary buried utility notifications were completed.

3.2 Soil Boring Advancement Activities

On June 2 2015, EAGLE utilized a hand auger to advance two borings, SB-01 and SB-02, adjacent to the dump lines and removed water vaults associated with the Foss #6-42, 6-43, and 6-45. The borings were logged with samples taken at 6-inch intervals. A portion of each soil sample was placed in a sealable plastic bag for volatile organic compound (VOC) headspace analysis utilizing a field calibrated photoionization detector (PID). Another portion of the soil sample was placed in a 4-ounce glass jar and packed in an iced cooler for laboratory analysis. Based on location and PID readings, EAGLE submitted soil samples SB-01@0.5-1' and SB-02@0.5-1' to Origins, under standard chain of custody procedures.

The soil samples were analyzed for benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, total petroleum hydrocarbons – gasoline range organics (TPH-GRO), and total petroleum hydrocarbons – diesel range organics (TPH-DRO) following modified Environmental Protection Agency (EPA) Methods 8260c and 8015. In addition, the soil samples were analyzed for Sodium Adsorption Ratio (SAR) following United States Department of Agriculture (USDA) Method 20B, Specific Conductance (EC) following USDA Method 3, and pH following EPA Method 9045D. The soil samples were received within the required holding time for each laboratory analysis.

On June 9, 2015, EAGLE returned to the site and advanced two additional soil borings, SB-03 and SB-04, beneath the previously removed production tanks associated with the Foss #6-42, 6-43, and 6-45 wells. Based on location and PID readings, EAGLE submitted soil samples SB-03@0.5-1' and SB-04@0.5-1' to Origins, under standard chain of custody procedures.

Spatial location of each soil boring was recorded using a Trimble GeoXT 6000 series instrument. A site map presenting the soil boring locations is included as Figure 3.

3.3 Groundwater Sampling Activities

Following advancement of each soil boring to approximately 5 feet bgs, a temporary monitoring well was installed for groundwater sample collection. Groundwater was observed within each well at approximately 3 feet bgs. Groundwater samples (GW-01 and GW-02) were collected from soil borings SB-01 and SB-02, respectively, on June 2, 2015. Groundwater samples (GW-03 and GW-04) were collected from soil borings SB-03 and SB-04, respectively, on June 9, 2015.

Each groundwater sample was placed in an iced cooler, and delivered to Origins, under standard chain of custody protocol, for laboratory analysis of BTEX following EPA method 8260c. The laboratory received the groundwater samples within the required holding time for laboratory analysis.

3.3 Laboratory Analytical Results

3.3.1 Soil Analytical Results

Based on soil laboratory analytical results, soil samples (SB-01@0.5-1', SB-02@0.5-1', SB-03@0.5-1', and SB-04@0.5-1') collected from the Foss #6-42, 6-43, and 6-45 site did not contain concentrations of BTEX, naphthalene, TPH-GRO, and TPH-DRO exceeding applicable COGCC Table 910-1 regulatory limits and/or laboratory reporting limits. Additionally, soil samples SB-01@0.5-1' and SB-02@0.5-1', did not contained concentrations of SAR, EC, or pH exceeding applicable COGCC Table 910-1 Regulatory Limits.

Soil analytical results are summarized in Table 1 and presented in Figure 4. Laboratory analytical reports for the soil samples collected during hand auger assessment activities at the Foss #6-42, 6-43, and 6-45 site are included in Attachment B.

3.3.2 Groundwater Analytical Results

Based on groundwater laboratory analytical results, groundwater samples (GW-02, GW-03, and GW-04) did not contained concentrations of BTEX exceeding applicable COGCC Table 910-1 Regulatory Limits.

Groundwater sample, GW-01, contained a concentration of benzene (82.4 micrograms per liter (µg/L)) exceeding the COGCC Table 910-1 Regulatory Limit of 5 µg/L.

Groundwater analytical results are summarized in Table 2 and are presented in Figure 5. The groundwater laboratory analytical report is included in Attachment B.

5.0 CONCLUSIONS

Based on the information presented in this report, EAGLE concludes the following:

- EAGLE advanced four soil borings adjacent to the dump lines, removed water vaults, and removed production tanks associated with the Foss #6-42, 6-43, and 6-45 wells.
- Soil samples (SB-01@0.5-1', SB-02@0.5-1', SB-03@0.5-1', and SB-04@0.5-1') collected from the soil borings at the Foss #6-42, 6-43, and 6-45 site did not contain concentrations of BTEX, naphthalene, TPH-GRO, and TPH-DRO exceeding applicable COGCC Table 910-1 regulatory limits and/or laboratory reporting limits.
- Soil samples (SB-01@0.5-1' and SB-02@0.5-1') did not contain concentrations of SAR, EC, and pH exceeding applicable COGCC Table 910-1 Regulatory Limits.

- Groundwater samples (GW-02, GW-03, and GW-04) collected from the soil borings at the Foss #6-42, 6-43, and 6-45 site did not contain concentrations of BTEX exceeding applicable COGCC Table 910-1 regulatory limits and/or laboratory reporting limits.
- The groundwater sample (GW-01) collected from SB-01 contained a concentration of benzene exceeding the COGCC Table 910-1 regulatory limit of 5 µg/L.

6.0 RECOMMENDATIONS

Based on the information presented in this report, EAGLE recommends the following:

- Install permanent monitoring wells to define and monitor dissolved phase hydrocarbon impacts beneath the site following tank battery rebuild.

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



Martin Eckert III
Senior Project Manager

FIGURES

Figure 1: Topographic Site Location Map

Figure 2: Aerial Site Location Map

Figure 3: Soil Boring Location Map

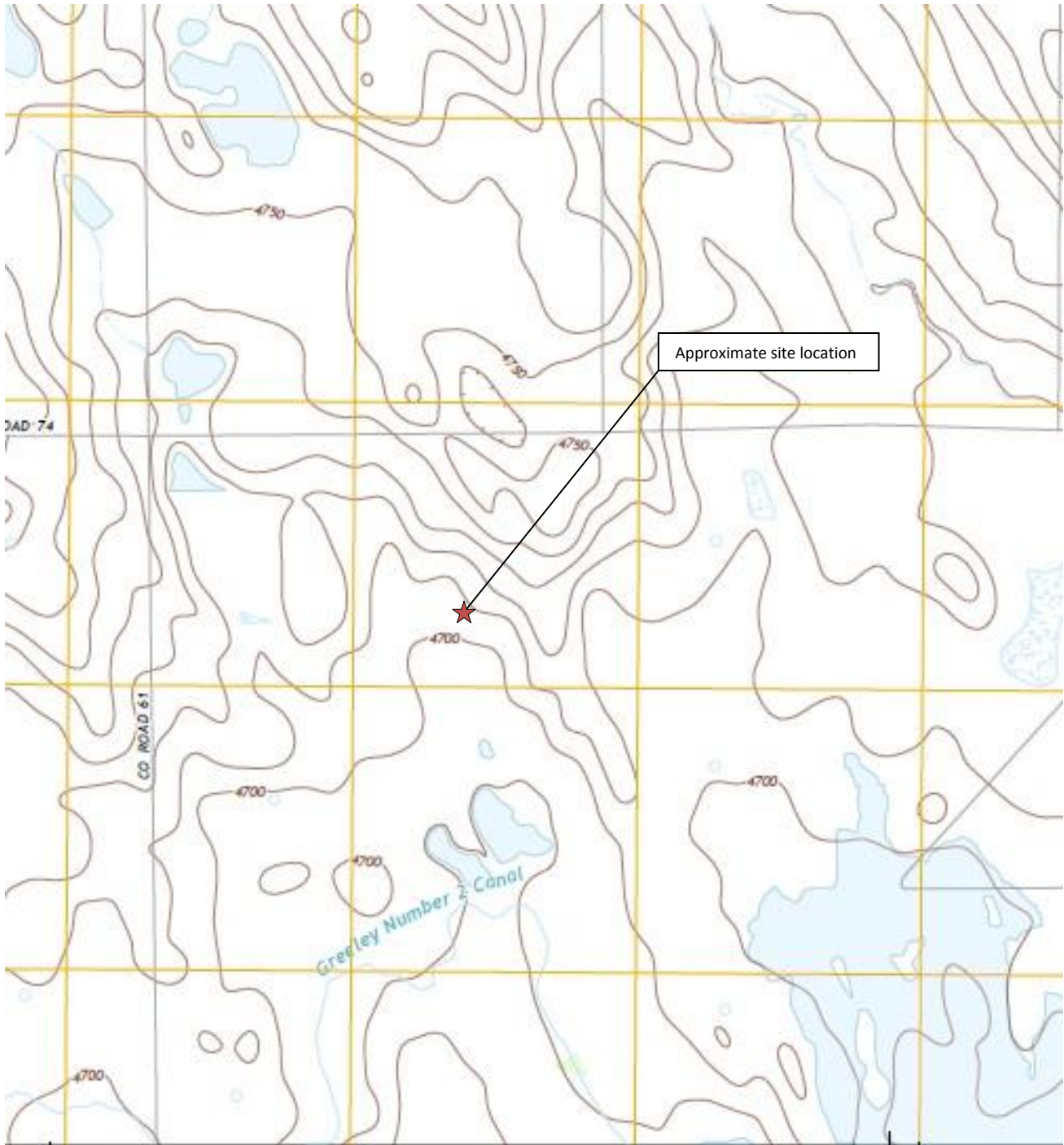
Figure 4: Soil Boring Analytical Map

Figure 5: Groundwater Sample Analytical Map

TABLES

Table 1: Soil Analytical Results Summary

Table 2: Groundwater Analytical Results Summary



Topographic Site Location Map

Foss #6-42, 43, 45
 Produced Water Release
 40.514420/-104.476176
 NW¼ SE¼ SEC.6 T6N R63W 6PM
 Weld County, Colorado
 API # 05-123-24288, 05-123-24293, 05-123-24289

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

Figure 1

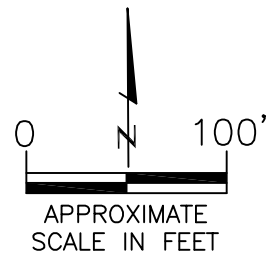


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LEGEND

- FOSS #6-42, 43, 45 TANK BATTERY
- APPROXIMATE LOCATION OF SITE ASSESSMENT



AERIAL SITE LOCATION MAP

FOSS # 6-42, 43, 45
PRODUCED WATER RELEASE
40.514420 / -104.476176

NW1/4 SE1/4 SEC.6 T6N R63W 6PM
WELD COUNTY, COLORADO

API # 05-123-24288, 05-123-24293, 05-123-24289

DATE:
06/01/2015

FIG. NO. DRAWN BY:
2 AMN

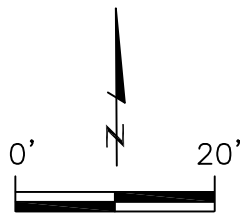


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LEGEND

● SB-01 APPROXIMATE SOIL BORING LOCATIONS



APPROXIMATE
SCALE IN FEET

SOIL BORING LOCATION MAP
FOSS #6-42, 6-43, 6-45
PRODUCED WATER RELEASE
40.514420/-104.476176
NW1/4 SE1/4 SEC.6 T6N R63W 6PM
WELD COUNTY, COLORADO
API # 05-123-24288, 05-123-24293, 05-123-24289

DATE: 06/10/15

FIG.
NO.

3

DRAWN BY:

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LEGEND

● SB-01 APPROXIMATE SOIL BORING LOCATIONS

PARAMETERS

SOIL 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)

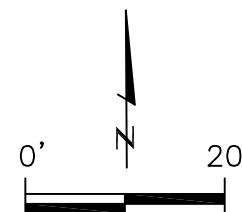
D = TPH-DRO (mg/kg)

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 BORING ANALYTICAL MAP

FOSS #6-42, 43, 45

PRODUCED WATER RELEASE

40.514420/-104.476176

NW1/4 SE1/4 SEC.6 T6N R63W 6PM

WELD COUNTY, COLORADO

API # 05-123-24288, 05-123-24293, 05-123-24289

SB-03@0.5-1'
06/09/15
0.5-1'
B = <0.002
T = <0.002
E = <0.002
X = <0.002
N = <0.007
G = <0.200
D = <50.0

SB-04@0.5-1'
06/09/15
0.5-1'
B = <0.002
T = <0.002
E = <0.002
X = <0.002
N = <0.007
G = <0.200
D = <50.0

SB-04/GW-04

SB-03/GW-03

SB-01@0.5-1'
06/02/15
0.5-1'
B = <0.002
T = <0.002
E = <0.002
X = <0.002
N = <0.007
G = <0.200
D = <50.0

SB-01/GW-01

SB-02/GW-02

SB-02@0.5-1'
06/02/15
0.5-1'
B = <0.002
T = <0.002
E = <0.002
X = <0.002
N = <0.007
G = <0.200
D = <50.0

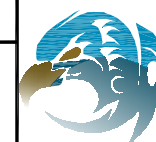
DATE: 06/10/15

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LEGEND

● SB-01 APPROXIMATE SOIL BORING LOCATIONS

PARAMETERS

GROUNDWATER SAMPLE LOCATION
DATE
B = BENZENE (ug/l)
T = TOLUENE (ug/l)
E = ETHYLBENZENE (ug/l)
X = TOTAL XYLENES (ug/l)

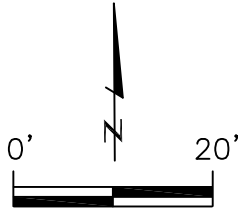
ug/l = MICROGRAMS PER LITER
TPH-GRO = TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE ORGANICS

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

VALUES PRESENTED IN **BOLD** EXCEED COGCC TABLE 910-1 REGULATORY LIMITS FOR THAT COMPOUND

COGCC = COLORADO OIL AND GAS CONSERVATION COMMISSION



APPROXIMATE
SCALE IN FEET

GROUNDWATER ANALYTICAL MAP

FOSS #6-42, 43, 45
PRODUCED WATER RELEASE
40.514420/-104.476176
NW1/4 SE1/4 SEC.6 T6N R63W 6PM
WELD COUNTY, COLORADO
API # 05-123-24288, 05-123-24293, 05-123-24289

DATE: 06/10/15

FIG.
NO.

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TABLES

Table 1: Soil Analytical Results Summary

Table 2: Groundwater Analytical Results Summary

TABLE 1
SOIL ANALYTICAL RESULTS SUMMARY
FOSS #6-42, 43, 45
PRODUCED WATER RELEASE
40.514420 / -104.476176
NW¼ SE¼ SEC.6 T6N R63W 6PM
WELD COUNTY, COLORADO
API # 05-123-24288, 05-123-24293, 05-123-24289

Sample Location (Latitude/Longitude)	Date	Approximate Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	Specific Conductance (mmhos/cm)	pH (pH units)	SAR
COGCC Table 910-1 Regulatory Limits (mg/kg)			0.17	85	100	175	23	500		<4	6 to 9	<12⁴5
SB-01 @ 0.5-1' (40.514344 / -104.476193)	06/02/15	0.5-1	<0.002	<0.002	<0.002	<0.002	<0.007	<0.200	<50.0	0.468	7.78	1.47
SB-02 @ 0.5-1' (40.514344 / -104.476161)	06/02/15	0.5-1	<0.002	<0.002	<0.002	<0.002	<0.007	<0.200	<50.0	0.0304	6.69	0.190
SB-03 @ 0.5-1' (40.514400 / -104.476182)	06/09/15	0.5-1	<0.002	<0.002	<0.002	<0.002	<0.007	<0.200	<50.0	NA	NA	NA
SB-04 @ 0.5-1' (40.514439 / -104.476185)	06/09/15	0.5-1	<0.002	<0.002	<0.002	<0.002	<0.007	<0.200	<50.0	NA	NA	NA
COGCC = Colorado Oil and Gas Conservation Commission mg/kg = milligrams per kilogram mmhos/cm = millimhos per centimeter NA = Not Analyzed TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics SAR = Sodium Adsorption Ratio Note: Values presented with a less than symbol (<) indicate concentrations were not observed at or above the laboratory reporting limit. Values presented in bold typeface exceed their respective COGCC - Regulatory Limits (Table 910-1).												

TABLE 2
GROUNDWATER ANALYTICAL RESULTS SUMMARY
FOSS #6-42, 43, 45
PRODUCED WATER RELEASE
40.514420 / -104.476176
NW¼ SE¼ SEC.6 T6N R63W 6PM
WELD COUNTY, COLORADO
API # 05-123-24288, 05-123-24293, 05-123-24289

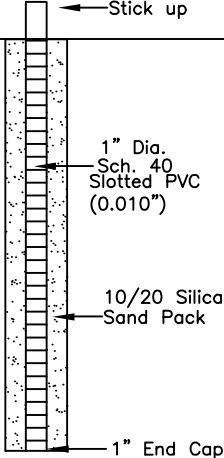
Sample Location (Latitude/Longitude)	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
COGCC Table 910-1 Regulatory Limits (µg/L)		5	560	700	1400
GW-01 (40.514344 / -104.476193)	06/02/15	82.4	44.3	4.6	8.8
GW-02 (40.514344 / -104.476161)	06/02/15	<1.0	<1.0	<1.0	<1.0
GW-03 (40.514400 / -104.476182)	06/09/15	<1.0	<1.0	<1.0	<1.0
GW-04 (40.514439 / -104.476185)	06/09/15	<1.0	<1.0	<1.0	<1.0
COGCC = Colorado Oil and Gas Conservation Commission µg/L - micrograms per liter Note: Values presented with a less than symbol (<) indicate concentrations were not observed at or above the laboratory reporting limit.					

ATTACHMENT A

Soil Boring/Well Completion Diagrams

Boring Log/Well Completion Diagram: SB-01

PAGE 1 OF 1

DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-1') sandy SILT - dark brown, loose, poorly sorted, moist with 25% fine to medium grained sand, N/O N/S	ML	HA	1	-	2.6	N/A			wet @ 3'
			HA	2	-	4.0	N/A			
	(1-3.5') sandy CLAY - brown/light brown, soft, moderate to high plasticity, poorly sorted, moist-wet with 25-30% fine to medium grained sand, N/O N/S	CL	HA	3	-	3.9	N/A			
			HA	4	-	3.8	N/A			
2.5			HA	5	-	3.8	N/A	2.5		
			HA	6	-	2.6	N/A			
			HA	7	-	4.7	N/A			
	(3.5-5') clayey SAND - light brown/brown, fine to medium coarse grained, poorly sorted, wet with 30% clay, N/O N/S	SC	HA	8	-	4.9	N/A			
			HA	9	-	8.1	N/A			
5			HA	10	-	7.1	N/A	5		
	BoB @ 5'									
7.5								7.5		
10								10		
12.5								12.5		
15										HC - Hydrocarbon BoB - Bottom of Boring N/O - no odor N/S - no staining TOC - top of casing bgs - below ground surface

START/COMPLETION DATE: 06/02/2015

SAND PACK INTERVAL (FEET): 0-5

PROJECT: FOSS 6-42, 43, 45

BENTONITE/GROUT INTERVAL (FEET): N/A

LOGGED BY: A. ROMANSKY

WELL SCREEN INTERVAL (FEET): 0-5

DRILLING COMPANY/EQUIPMENT: EAGLE/HAND AUGER

WELL DIAMETER (INCHES): 1"

BORING DEPTH (FEET): 5

WELL DEPTH (FEET): 5

PID INSTRUMENT: MiniRAE 2000 - PID #5

TIME STARTED/COMPLETED: 830/1025

SAMPLE COLLECTION DEPTH (FEET)/TIME: 0.5-1/905

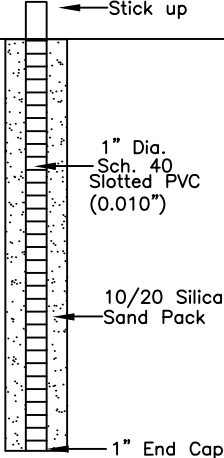


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Boring Log/Well Completion Diagram: SB-02

PAGE 1 OF 1

DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-1') sandy SILT - dark brown, loose, poorly sorted, moist with 20% fine to medium grained sand, N/O N/S	ML	HA	1	-	5.6	N/A			wet @ 3'
			HA	2	-	7.7	N/A			
	(1-3.5') sandy CLAY - brown/light brown, soft, moderate to high plasticity, poorly sorted, moist-wet with 25-30% fine to medium grained sand, N/O N/S	CL	HA	3	-	6.4	N/A			
			HA	4	-	3.9	N/A			
2.5			HA	5	-	5.1	N/A	2.5		
			HA	6	-	4.4	N/A			
			HA	7	-	3.1	N/A			
	(3.5-5') clayey SAND - light brown/brown, fine to medium coarse grained, poorly sorted, wet with 30-35% clay, N/O N/S	SC	HA	8	-	3.7	N/A			
			HA	9	-	4.1	N/A			
5			HA	10	-	2.2	N/A	5		
	BoB @ 5'									
7.5								7.5		
10								10		
12.5								12.5		
15										HC - Hydrocarbon BoB - Bottom of Boring N/O - no odor N/S - no staining TOC - top of casing bgs - below ground surface

START/COMPLETION DATE: 06/02/2015

SAND PACK INTERVAL (FEET): 0-5

PROJECT: FOSS 6-42, 43, 45

BENTONITE/GROUT INTERVAL (FEET): N/A

LOGGED BY: A. ROMANSKY

WELL SCREEN INTERVAL (FEET): 0-5

DRILLING COMPANY/EQUIPMENT: EAGLE/HAND AUGER

WELL DIAMETER (INCHES): 1"

BORING DEPTH (FEET): 5

WELL DEPTH (FEET): 5

PID INSTRUMENT: MiniRAE 2000 - PID #5

TIME STARTED/COMPLETED: 1030/1200

SAMPLE COLLECTION DEPTH (FEET)/TIME: 0.5-1/1115

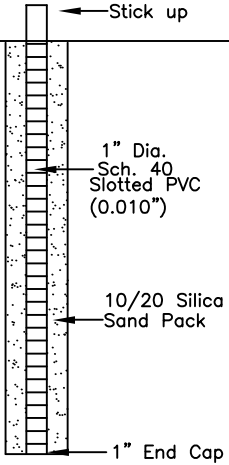


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Boring Log/Well Completion Diagram: SB-03

PAGE 1 OF 1

DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-1') sandy SILT - dark brown, loose, moderately sorted, moist with 25% fine to medium grained sand, N/O N/S	ML	HA	1	-	150.3	N/A			wet @ 3'
			HA	2	-	205.2	N/A			
	(1-4') sandy CLAY - brown/light brown, soft, moderate plasticity, poorly sorted, moist-wet with 30% fine to medium grained sand, N/O N/S	CL	HA	3	-	31.2	N/A			
			HA	4	-	27.8	N/A			
2.5			HA	5	-	22.5	N/A	2.5		
			HA	6	-	3.5	N/A			
			HA	7	-	5.1	N/A			
			HA	8	-	3.6	N/A			
	(4-5') clayey SAND - light brown, medium to coarse grained, poorly sorted, wet with 15-20% clay, N/O N/S	SC	HA	9	-	3.5	N/A			
5			HA	10	-	3.5	N/A	5		
	BoB @ 5'									
7.5								7.5		
10								10		
12.5								12.5		
15										HC - Hydrocarbon BoB - Bottom of Boring N/O - no odor N/S - no staining TOC - top of casing bgs - below ground surface

START/COMPLETION DATE: 06/09/2015

SAND PACK INTERVAL (FEET): 0-5

PROJECT: FOSS 6-42, 43, 45

BENTONITE/GROUT INTERVAL (FEET): N/A

LOGGED BY: A. ROMANSKY

WELL SCREEN INTERVAL (FEET): 0-5

DRILLING COMPANY/EQUIPMENT: EAGLE/HAND AUGER

WELL DIAMETER (INCHES): 1"

BORING DEPTH (FEET): 5

WELL DEPTH (FEET): 5

PID INSTRUMENT: MiniRAE 3000 - PID #7

TIME STARTED/COMPLETED: 925/1045

SAMPLE COLLECTION DEPTH (FEET)/TIME: 0.5-1/1000

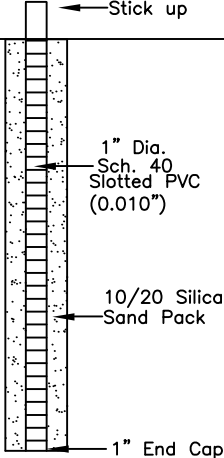


EAGLE
ENVIRONMENTAL
CONSULTING, INC.

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

Boring Log/Well Completion Diagram: SB-04

PAGE 1 OF 1

DEPTH (FT)	LITHOLOGY	SAMPLE				OVM/OVA (PPM)	BLOW COUNT (per 0.5 FT)	DEPTH (FT)	WELL CONSTRUCTION DETAIL	COMMENTS
	DESCRIPTION	GRAPHIC LOG	TYPE	NUMBER	RECOVERY %					
0	(0-1') sandy SILT - dark brown, loose, moderately sorted, moist with 25% fine to medium grained sand, N/O N/S	ML	HA	1	-	26.2	N/A			wet @ 3'
			HA	2	-	64.3	N/A			
	(1-4') sandy CLAY - brown/light brown, soft, moderate to high plasticity, poorly sorted, moist-wet with 30% fine to medium grained sand, N/O N/S	CL	HA	3	-	4.2	N/A			
			HA	4	-	1.7	N/A			
2.5			HA	5	-	2.2	N/A	2.5		
			HA	6	-	1.4	N/A			
			HA	7	-	5.8	N/A			
			HA	8	-	1.7	N/A			
	(4-5') clayey SAND - light brown, medium to coarse grained, poorly sorted, wet with 15-20% clay, N/O N/S	SC	HA	9	-	1.5	N/A			
5			HA	10	-	1.4	N/A	5		
	BoB @ 5'									
7.5								7.5		
10								10		
12.5								12.5		
15										HC - Hydrocarbon BoB - Bottom of Boring N/O - no odor N/S - no staining TOC - top of casing bgs - below ground surface

START/COMPLETION DATE: 06/09/2015

SAND PACK INTERVAL (FEET): 0-5

PROJECT: FOSS 6-42, 43, 45

BENTONITE/GROUT INTERVAL (FEET): N/A

LOGGED BY: A. ROMANSKY

WELL SCREEN INTERVAL (FEET): 0-5

DRILLING COMPANY/EQUIPMENT: EAGLE/HAND AUGER

WELL DIAMETER (INCHES): 1"

BORING DEPTH (FEET): 5

WELL DEPTH (FEET): 5

PID INSTRUMENT: MiniRAE 3000 - PID #7

TIME STARTED/COMPLETED: 1055/1155

SAMPLE COLLECTION DEPTH (FEET)/TIME: 0.5-1/1120



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ENVIRONMENTAL
CONSULTING, INC.

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Ph: 303-433-0479 • F: 303-325-5449

ATTACHMENT B

Laboratory Analytical Reports



June 05, 2015

Eagle Environmental Consulting, Inc.

Martin C Eckert III

4101 Inca Street

Denver

CO 80211

Project Name - Noble - Foss #6-42,43,45

Project Number - [none]

Attached are your analytical results for Noble - Foss #6-42,43,45 received by Origins Laboratory, Inc. June 02, 2015. This project is associated with Origins project number X506033-01.

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 - Foss #6-42,43,45

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-01 @ 0.5-1'	X506033-01	Soil	June 2, 2015 9:05	06/02/2015 14:05
SB-02 @ 0.5-1'	X506033-02	Soil	June 2, 2015 11:15	06/02/2015 14:05

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

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

Martin C Eckert III
Project Number: [none]
Project: Noble - Foss #6-42,43,45

www.originslaboratory.com

XS06033

ORIGINS
LABORATORY, INC

page 1 of 1

Client: EBLE ENV CONSULTING
Address: 4101 Inca St
DENVER, CO 80211
Telephone Number: 303 453 0479
Email Address: MCE3@eagle-env.com

Project Manager: MARTIN ECKERT III
Project Name: Foss #6-42,43,45
Project Number:
Samples Collected By: A. Romanish

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix		Analysis				Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #	Other	GC/MS	GC/MS	
SB-01@0.5-1'	6/2/15	905	2	X				X		X	X	X	X	1
SB-02@0.5-1'	6/2/15	1115	2	X				X		X	X	X	X	2
														3
														4
														5
														6
														7
														8
														9
														10

Relinquished By: CHC Date: 6/2/15 Time: 1405

Relinquished By: Date: Time:

Received By: Date: 6/2/15 Time: 1405

Received By: Date: Time:

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

Date Results Needed NO BLUE

Temp Received: 2.9

HOLD SAMPLES FOR 24 HRS - TEST
BEFORE TO XICOB

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 - Foss #6-42,43,45

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: XS06053

Client: Eagle

Client Project ID: Noble - Foss #6-42,43,45

Checklist Completed by: LFE Smith

Shipped Via: HD

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

Date/time completed: 6/2/15

Airbill #: NA

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

Cooler Number/Temperature: 1 / 2.8 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: 7253

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<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 (Project Manager) [Signature]

Date/Time Reviewed 6/3/15

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 - Foss #6-42,43,45

SB-01 @ 0.5-1'
6/2/2015 9:05:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X506033-01 (Soil)

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

Diesel (C10-C28)	ND	50.0	mg/kg	1	5F02007	06/02/2015	06/02/2015
------------------	----	------	-------	---	---------	------------	------------

Surrogate: o-Terphenyl	61.2 %	59-131			"	"	"
------------------------	--------	--------	--	--	---	---	---

GBTEX + Napthalene by 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	5F02006	06/02/2015	06/02/2015
Benzene	ND	0.002	"	"	"	"	"
Toluene	ND	0.002	"	"	"	"	"
Ethylbenzene	ND	0.002	"	"	"	"	"
Xylenes, total	ND	0.002	"	"	"	"	"
Naphthalene	ND	0.007	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	115 %	70-130			"	"	"
Surrogate: Toluene-d8	95.4 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	70-130			"	"	"

Metals by SW846 3050B/6010C

Calcium	2260	29.8	mg/kg dry	1	1483151	06/04/2015	06/05/2015
Magnesium	1110	35.8	"	"	"	"	"
Sodium	342	29.8	"	"	"	"	"

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 - Foss #6-42,43,45

SB-01 @ 0.5-1'

6/2/2015 9:05:00AM

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit						

Origins Laboratory, Inc.

X506033-01 (Soil)

pH in Soil by EPA 9045D

pH	7.78	pH Units	1	5F02017	06/02/2015	06/02/2015
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Sodium Adsorption Ratio

Sodium Adsorption Ratio	1.47	none	1	1483838		06/05/2015
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.468	mmhos/cm	1	5F02008	06/02/2015	06/02/2015
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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 - Foss #6-42,43,45

SB-02 @ 0.5-1'
6/2/2015 11:15:00AM

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

Origins Laboratory, Inc.
X506033-02 (Soil)

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

Diesel (C10-C28)	ND	50.0	mg/kg	1	5F04008	06/04/2015	06/04/2015
------------------	----	------	-------	---	---------	------------	------------

Surrogate: o-Terphenyl	89.4 %	59-131			"	"	"
------------------------	--------	--------	--	--	---	---	---

GBTEX + Napthalene by 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	5F04007	"	06/04/2015
Benzene	ND	0.002	"	"	"	"	"
Toluene	ND	0.002	"	"	"	"	"
Ethylbenzene	ND	0.002	"	"	"	"	"
Xylenes, total	ND	0.002	"	"	"	"	"
Naphthalene	ND	0.007	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130			"	"	"
Surrogate: Toluene-d8	97.3 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	70-130			"	"	"

Metals by SW846 3050B/6010C

Calcium	1010	26.3	mg/kg dry	1	1482898	06/03/2015	06/04/2015
Magnesium	628	31.6	"	"	"	"	"
Sodium	31.1	26.3	"	"	"	"	"

pH in Soil by EPA 9045D

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 - Foss #6-42,43,45

SB-02 @ 0.5-1'

6/2/2015 11:15:00AM

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

Origins Laboratory, Inc.
X506033-02 (Soil)

pH in Soil by EPA 9045D

pH	6.69	pH Units	1	5F04010	06/04/2015	06/04/2015
----	------	----------	---	---------	------------	------------

Sodium Adsorption Ratio

Sodium Adsorption Ratio	0.190	none	1	1483838		06/05/2015
-------------------------	-------	------	---	---------	--	------------

Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0304	mmhos/cm	1	5F04009	06/04/2015	06/04/2015
---------------------------	--------	----------	---	---------	------------	------------

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 - Foss #6-42,43,45

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 5F02006 - EPA 5030 (soil)

Blank (5F02006-BLK1)

Prepared: 06/02/2015 Analyzed: 06/02/2015

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							
Benzene	ND	0.002	"							
Toluene	ND	0.002	"							
Ethylbenzene	ND	0.002	"							
Xylenes, total	ND	0.002	"							
Naphthalene	ND	0.007	"							
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	59		"	62.5		94.8	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.9	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.

Jen Pellegrini For Noelle Doyle Mathis, President

Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Noble - Foss #6-42,43,45

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 5F02006 - EPA 5030 (soil)										
LCS (5F02006-BS1)					Prepared: 06/02/2015 Analyzed: 06/02/2015					
Benzene	0.104	0.002	mg/kg	0.100		104	70-130			
Toluene	0.100	0.002	"	0.100		100	70-130			
Ethylbenzene	0.098	0.002	"	0.100		98.3	70-130			
m,p-Xylene	0.199	0.004	"	0.200		99.3	70-130			
o-Xylene	0.103	0.002	"	0.100		103	70-130			
Naphthalene	0.109	0.007	"	0.100		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	61		ug/kg	62.5		97.5	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.5	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.4	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 - Foss #6-42,43,45

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 5F02006 - EPA 5030 (soil)

Matrix Spike (5F02006-MS1)		Source: X506014-01			Prepared: 06/02/2015 Analyzed: 06/02/2015					
Benzene	0.097	0.002	mg/kg	0.100	ND	96.5	70-130			
Toluene	0.091	0.002	"	0.100	0.0007	90.6	70-130			
Ethylbenzene	0.089	0.002	"	0.100	ND	89.0	70-130			
m,p-Xylene	0.179	0.004	"	0.200	ND	89.6	70-130			
o-Xylene	0.093	0.002	"	0.100	ND	93.2	70-130			
Naphthalene	0.097	0.007	"	0.100	ND	97.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		106	70-130			
Surrogate: Toluene-d8	60		"	62.5		95.9	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
Project Number: [none]
Project: Noble - Foss #6-42,43,45

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 5F02006 - EPA 5030 (soil)										
Matrix Spike Dup (5F02006-MSD1)					Source: X506014-01					Prepared: 06/02/2015 Analyzed: 06/02/2015
Benzene	0.098	0.002	mg/kg	0.100	ND	98.5	70-130	1.97	20	
Toluene	0.093	0.002	"	0.100	0.0007	91.8	70-130	1.39	20	
Ethylbenzene	0.090	0.002	"	0.100	ND	89.7	70-130	0.738	20	
m,p-Xylene	0.181	0.004	"	0.200	ND	90.5	70-130	1.07	20	
o-Xylene	0.094	0.002	"	0.100	ND	93.9	70-130	0.812	20	
Naphthalene	0.096	0.007	"	0.100	ND	96.1	70-130	1.10	20	
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	60		"	62.5		95.6	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.6	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 - Foss #6-42,43,45

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 5F04007 - EPA 5030 (soil)										
Blank (5F04007-BLK1)					Prepared: 06/04/2015 Analyzed: 06/04/2015					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							
Benzene	ND	0.002	"							
Toluene	ND	0.002	"							
Ethylbenzene	ND	0.002	"							
Xylenes, total	ND	0.002	"							
Naphthalene	ND	0.007	"							
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		103	70-130			
Surrogate: Toluene-d8	59		"	62.5		95.0	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	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 - Foss #6-42,43,45

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 5F04007 - EPA 5030 (soil)										
LCS (5F04007-BS1)					Prepared: 06/04/2015 Analyzed: 06/04/2015					
Benzene	0.096	0.002	mg/kg	0.100		95.8	70-130			
Toluene	0.091	0.002	"	0.100		91.5	70-130			
Ethylbenzene	0.090	0.002	"	0.100		90.4	70-130			
m,p-Xylene	0.182	0.004	"	0.200		90.9	70-130			
o-Xylene	0.094	0.002	"	0.100		94.1	70-130			
Naphthalene	0.092	0.007	"	0.100		92.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	61		ug/kg	62.5		97.5	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.7	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.8	70-130			

Origins Laboratory, Inc.



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

Jen Pellegrini For Noelle Doyle Mathis, President

Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Noble - Foss #6-42,43,45

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 5F04007 - EPA 5030 (soil)

Matrix Spike (5F04007-MS1)		Source: X506033-02			Prepared: 06/04/2015 Analyzed: 06/04/2015					
Benzene	0.100	0.002	mg/kg	0.100	ND	100	70-130			
Toluene	0.098	0.002	"	0.100	ND	98.3	70-130			
Ethylbenzene	0.107	0.002	"	0.100	ND	107	70-130			
m,p-Xylene	0.217	0.004	"	0.200	ND	108	70-130			
o-Xylene	0.110	0.002	"	0.100	ND	110	70-130			
Naphthalene	0.074	0.007	"	0.100	ND	74.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		95.0	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Noble - Foss #6-42,43,45

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 5F04007 - EPA 5030 (soil)

Matrix Spike Dup (5F04007-MSD1)		Source: X506033-02			Prepared: 06/04/2015 Analyzed: 06/04/2015					
Benzene	0.102	0.002	mg/kg	0.100	ND	102	70-130	1.23	20	
Toluene	0.099	0.002	"	0.100	ND	98.6	70-130	0.244	20	
Ethylbenzene	0.105	0.002	"	0.100	ND	105	70-130	1.97	20	
m,p-Xylene	0.211	0.004	"	0.200	ND	105	70-130	2.83	20	
o-Xylene	0.108	0.002	"	0.100	ND	108	70-130	1.45	20	
Naphthalene	0.076	0.007	"	0.100	ND	76.5	70-130	3.16	20	
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		95.0	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.8	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		105	70-130			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
Project Number: [none]
Project: Noble - Foss #6-42,43,45

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 5F02007 - EPA 3580

Blank (5F02007-BLK1)

Prepared: 06/02/2015 Analyzed: 06/02/2015

Diesel (C10-C28) ND 50.0 mg/kg

Surrogate: o-Terphenyl 51 " 50.0 102 59-131

LCS (5F02007-BS1)

Prepared: 06/02/2015 Analyzed: 06/02/2015

Diesel (C10-C28) 1030 50.0 mg/kg 1000 103 64-121

Surrogate: o-Terphenyl 58 " 50.0 115 59-131

Matrix Spike (5F02007-MS1)

Source: X506004-01

Prepared: 06/02/2015 Analyzed: 06/02/2015

Diesel (C10-C28) 910 50.0 mg/kg 1000 19.3 89.1 53-125

Surrogate: o-Terphenyl 48 " 50.0 95.6 59-131

Matrix Spike Dup (5F02007-MSD1)

Source: X506004-01

Prepared: 06/02/2015 Analyzed: 06/02/2015

Diesel (C10-C28) 924 50.0 mg/kg 1000 19.3 90.5 53-125 1.53 20

Surrogate: o-Terphenyl 50 " 50.0 99.8 59-131

Batch 5F04008 - EPA 3580

Blank (5F04008-BLK1)

Prepared: 06/04/2015 Analyzed: 06/04/2015

Diesel (C10-C28) ND 50.0 mg/kg

Surrogate: o-Terphenyl 53 " 50.0 106 59-131

LCS (5F04008-BS1)

Prepared: 06/04/2015 Analyzed: 06/04/2015

Diesel (C10-C28) 761 50.0 mg/kg 1000 76.1 64-121

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 - Foss #6-42,43,45

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
Batch 5F04008 - EPA 3580										
LCS (5F04008-BS1)					Prepared: 06/04/2015 Analyzed: 06/04/2015					
Surrogate: o-Terphenyl	42		mg/kg	50.0		83.1	59-131			
Matrix Spike (5F04008-MS1)		Source: X506033-02		Prepared: 06/04/2015 Analyzed: 06/04/2015						
Diesel (C10-C28)	768	50.0	mg/kg	1000	17.0	75.1	53-125			
Surrogate: o-Terphenyl	42		"	50.0		83.6	59-131			
Matrix Spike Dup (5F04008-MSD1)		Source: X506033-02		Prepared: 06/04/2015 Analyzed: 06/04/2015						
Diesel (C10-C28)	923	50.0	mg/kg	1000	17.0	90.6	53-125	18.3	20	
Surrogate: o-Terphenyl	49		"	50.0		99.0	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 - Foss #6-42,43,45

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 5F02008 - NO PREP										
Blank (5F02008-BLK1)					Prepared: 06/02/2015 Analyzed: 06/02/2015					
Specific Conductance (EC)	0.00260		mmhos/cm							
Duplicate (5F02008-DUP1)					Source: X505311-02 Prepared: 06/02/2015 Analyzed: 06/02/2015					
Specific Conductance (EC)	0.0862		mmhos/cm		0.0938			8.44	25	
Batch 5F02017 - NO PREP										
Duplicate (5F02017-DUP1)					Source: X506033-01 Prepared: 06/02/2015 Analyzed: 06/02/2015					
pH	7.60		pH Units		7.78			2.34	25	
Batch 5F04009 - NO PREP										
Blank (5F04009-BLK1)					Prepared: 06/04/2015 Analyzed: 06/04/2015					
Specific Conductance (EC)	0.00260		mmhos/cm							
Duplicate (5F04009-DUP1)					Source: X506033-02 Prepared: 06/04/2015 Analyzed: 06/04/2015					
Specific Conductance (EC)	0.0249		mmhos/cm		0.0304			19.9	25	
Batch 5F04010 - NO PREP										
Duplicate (5F04010-DUP1)					Source: X506033-02 Prepared: 06/04/2015 Analyzed: 06/04/2015					
pH	6.86		pH Units		6.69			2.51	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 - Foss #6-42,43,45

Metals by SW846 3050B/6010C - Quality Control
GEL Laboratories, LLC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1482898 - SW846 3050B										
BLANK (1203329791-BLK)					Prepared: 06/03/2015 Analyzed: 06/04/2015					
Sodium	18.0	23.9	mg/kg				-			J
Magnesium	ND	28.7	"				-			U
Calcium	ND	23.9	"				-			U
LCS (1203329792-BKS)					Prepared: 06/03/2015 Analyzed: 06/04/2015					
Sodium	471	23.9	mg/kg	477		98.8	80-120			
Magnesium	471	28.6	"	477		98.8	80-120			
Calcium	475	23.9	"	477		99.6	80-120			
DUP (1203329793 D)					Source: 374215001		Prepared: 06/03/2015 Analyzed: 06/04/2015			
Calcium	2580	28.2	mg/kg dry		2550		0-20	0.887	20	
Magnesium	717	33.8	"		764		0-20	6.35	20	
Sodium	74.9	28.2	"		81.2		0-20	8.09	20	
MS (1203329794 S)					Source: 374215001		Prepared: 06/03/2015 Analyzed: 06/04/2015			
Magnesium	2190	33.1	mg/kg dry	552	764	258	75-125			N
Calcium	3970	27.6	"	552	2550	256	75-125			
Sodium	659	27.6	"	552	81.2	105	75-125			
PS (1203330613 S)					Source: 374215001		Prepared: 06/03/2015 Analyzed: 06/04/2015			
Magnesium	13.6	0.341	mg/kg dry	5000		103	80-120			
Batch 1483151 - SW846 3050B										
BLANK (1203330427-BLK)					Prepared: 06/04/2015 Analyzed: 06/05/2015					
Magnesium	ND	28.7	mg/kg				-			U
Sodium	ND	23.9	"				-			U
Calcium	ND	23.9	"				-			U

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 - Foss #6-42,43,45

Metals by SW846 3050B/6010C - Quality Control

GEL Laboratories, LLC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1483151 - SW846 3050B										
LCS (1203330428-BKS)					Prepared: 06/04/2015 Analyzed: 06/05/2015					
Magnesium	478	28.6	mg/kg	476		100	80-120			
Sodium	470	23.8	"	476		98.6	80-120			
Calcium	476	23.8	"	476		99.9	80-120			
DUP (1203330429 D)					Source: X506033-01		Prepared: 06/04/2015 Analyzed: 06/05/2015			
Sodium	351	29.7	mg/kg dry		342		0-20	2.46	20	
Calcium	2940	29.7	"		2260		0-20	26.3	20	
Magnesium	1690	35.6	"		1110		0-20	41.6	20	
MS (1203330430 S)					Source: X506033-01		Prepared: 06/04/2015 Analyzed: 06/05/2015			
Sodium	936	28.8	mg/kg dry	576	342	103	75-125			
Magnesium	1900	34.6	"	576	1110	137	75-125			N
Calcium	3180	28.8	"	576	2260	160	75-125			
PS (1203332302 S)					Source: X506033-01		Prepared: 06/04/2015 Analyzed: 06/05/2015			
Calcium	29.0	0.303	mg/kg dry	5000		99.9	80-120			
Magnesium	17.2	0.364	"	5000		97.4	80-120			

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 - Foss #6-42,43,45

Notes and Definitions

U Result not detected above the detection limit

N Spiked sample recovery not within control limits

J Greater than the detection limit but less than the reporting limit

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



June 04, 2015

Eagle Environmental Consulting, Inc.

Martin C Eckert III

4101 Inca Street

Denver

CO 80211

Project Name - Noble - Foss #6-42,43,45

Project Number - [none]

Attached are your analytical results for Noble - Foss #6-42,43,45 received by Origins Laboratory, Inc. June 02, 2015. This project is associated with Origins project number X506035-01.

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 - Foss #6-42,43,45

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW-01	X506035-01	Water	June 2, 2015 10:15	06/02/2015 14:05
GW-02	X506035-02	Water	June 2, 2015 12:00	06/02/2015 14:05

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

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

Martin C Eckert III
Project Number: [none]
Project: Noble - Foss #6-42,43,45

www.originslaboratory.com

X506035

page 1 of 1

ORIGINS
LABORATORY, INC

Client: EAGLE ENV CONSULTING
Address: 4101 INCA ST
DENVER, CO 80211
Telephone Number: 303 433 0479
Email Address: MCE@eagle-env.com

Project Manager: MARTIN ECKERT III
Project Name: FOSS #6-42, 43, 45
Project Number: —
Samples Collected By: A. GONZALEZ

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #	Other	ESTX	
GW-01	6/2/15	1015	3		X			X					1
GW-02	6/2/15	1200	3		X			X					2
													3
													4
													5
													6
													7
													8
													9
													10

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:		
						Same Day	48 Hr	72 Hr
[Signature]	6/2/15	1405	[Signature]	6/2/15	1405	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Date Results Needed: 6/2/15

Temp Received: 2.9

Bele To JHEOB

Origins Laboratory, Inc.

Jefe Pellegrini

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Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Noble - Foss #6-42,43,45

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: XS06035

Client: Fagle

Client Project ID: Foss #6-42,43,45

Checklist Completed by: Jeff Smith

Shipped Via: H/D

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

Date/time completed: 6/2/15

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 2-8 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water — is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	HCL
Additional Comments (if any):				

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

Reviewed by (Project Manager)

Date/Time Reviewed 6/3/15

Origins Laboratory, Inc.

Jeff Pellegrini

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Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Noble - Foss #6-42,43,45

GW-01

6/2/2015 10:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

X506035-01 (Water)

BTEX by EPA 8260C

Benzene	82.4	4.0	ug/L	4	5F02018	06/02/2015	06/03/2015
Toluene	44.3	4.0	"	"	"	"	"
Ethylbenzene	4.6	4.0	"	"	"	"	"
Xylenes, total	8.8	4.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4

106 % 87.3-113

"

"

"

Surrogate: Toluene-d8

99.9 % 90.9-108

"

"

"

Surrogate: 4-Bromofluorobenzene

102 % 88.6-111

"

"

"

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 - Foss #6-42,43,45

GW-02

6/2/2015 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

X506035-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	5F02018	06/02/2015	06/03/2015
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	108 %	87.3-113			"	"	"
Surrogate: Toluene-d8	99.1 %	90.9-108			"	"	"
Surrogate: 4-Bromofluorobenzene	99.6 %	88.6-111			"	"	"

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 - Foss #6-42,43,45

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 5F02018 - EPA 5030B (Water)

Blank (5F02018-BLK1)

Prepared: 06/02/2015 Analyzed: 06/02/2015

Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	68		"	62.5	108		87.3-113			
Surrogate: Toluene-d8	63		"	62.5	100		90.9-108			
Surrogate: 4-Bromofluorobenzene	63		"	62.5	101		88.6-111			

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 - Foss #6-42,43,45

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 5F02018 - EPA 5030B (Water)

LCS (5F02018-BS1)

Prepared: 06/02/2015 Analyzed: 06/02/2015

Benzene	48.7	1.0	ug/L	50.0		97.3	75-126			
Toluene	49.0	1.0	"	50.0		97.9	78.7-126			
Ethylbenzene	49.8	1.0	"	50.0		99.5	80-130			
m,p-Xylene	99.3	2.0	"	100		99.3	77.2-133			
o-Xylene	49.6	1.0	"	50.0		99.3	77.9-126			
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		100	87.3-113			
Surrogate: Toluene-d8	63		"	62.5		101	90.9-108			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	88.6-111			

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

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

Martin C Eckert III
Project Number: [none]
Project: Noble - Foss #6-42,43,45

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 5F02018 - EPA 5030B (Water)

Matrix Spike (5F02018-MS1)		Source: X506036-07			Prepared: 06/02/2015 Analyzed: 06/02/2015					
Benzene	50.4	1.0	ug/L	50.0	ND	101	74-130			
Toluene	50.4	1.0	"	50.0	ND	101	73-131			
Ethylbenzene	52.4	1.0	"	50.0	ND	105	76-132			
m,p-Xylene	103	2.0	"	100	ND	103	69-139			
o-Xylene	50.5	1.0	"	50.0	ND	101	74-131			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.5	87.3-113			
Surrogate: Toluene-d8	62		"	62.5		99.2	90.9-108			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	88.6-111			

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 - Foss #6-42,43,45

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 5F02018 - EPA 5030B (Water)

Matrix Spike Dup (5F02018-MSD1)		Source: X506036-07			Prepared: 06/02/2015 Analyzed: 06/02/2015					
Benzene	49.2	1.0	ug/L	50.0	ND	98.4	74-130	2.43	20	
Toluene	49.6	1.0	"	50.0	ND	99.1	73-131	1.70	20	
Ethylbenzene	49.9	1.0	"	50.0	ND	99.8	76-132	4.91	20	
m,p-Xylene	100	2.0	"	100	ND	100	69-139	2.96	20	
o-Xylene	49.9	1.0	"	50.0	ND	99.8	74-131	1.22	20	
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.3	87.3-113			
Surrogate: Toluene-d8	63		"	62.5		101	90.9-108			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	88.6-111			

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 - Foss #6-42,43,45

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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



June 11, 2015

Eagle Environmental Consulting, Inc.

Martin C Eckert III

4101 Inca Street

Denver

CO 80211

Project Name - Noble - Foss #6-42,43,45

Project Number - [none]

Attached are your analytical results for Noble - Foss #6-42,43,45 received by Origins Laboratory, Inc. June 09, 2015. This project is associated with Origins project number X506110-01.

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 - Foss #6-42,43,45

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-03 @ 0.5-1'	X506110-01	Soil	June 9, 2015 10:00	06/09/2015 14:05
SB-04 @ 0.5-1'	X506110-02	Soil	June 9, 2015 11:20	06/09/2015 14:05

Origins Laboratory, Inc.



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

Martin C Eckert III
Project Number: [none]
Project: Noble - Foss #6-42,43,45

ORIGINS

LABORATORY, INC

X506110

www.originslaboratory.com

page 1 of 1

Client: ETHEL BULL CONSULTING

Address: 401 EXA ST

DENVER, CO 80211

Telephone Number: 303 473 0474

Email Address: MR303@origins-lab.com

Project Manager: NATHAN ELBERT III

Project Name: ROSS #6-42, 43, 45

Project Number: ---

Samples Collected By: A. ROMANOFF

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Sampler #			Other
SB-030.0.5-1'	6/9/15	1000	2	X				X			X	X	1
SB-040.0.5-1'	6/9/15	1120	2	X				X			X	X	2
													3 A12
													4
													5
													6
													7
													8
													9
													10

Relinquished By:	Date:	Time:	Received By:		Date:	Time:	Turnaround Time:		
			Signature	Signature			Same Day	24 Hr	48 Hr
<i>[Signature]</i>	6/9/15	1405	<i>[Signature]</i>	<i>[Signature]</i>	6/9/15	1405	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Bill to Shop

Temp Received: Z.6

Date Results Needed X 2064

Origins Laboratory, Inc.

Jeff Pellipini

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 - Foss #6-42,43,45

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: XS06110

Client: Eagle

Client Project ID: Foss #6-42,43,45

Checklist Completed by: Jef Smith

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

Date/time completed: 6/9/15

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 12.6 °C 1 / _____ °C 1 / _____ °C (Describe)

Thermometer ID: TD03

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water — is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<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 (Project Manager) Jef Smith

Date/Time Reviewed 6/10/15

Origins Laboratory, Inc.

Jef 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 - Foss #6-42,43,45

SB-03 @ 0.5-1'
6/9/2015 10:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X506110-01 (Soil)

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

Diesel (C10-C28)	ND	50.0	mg/kg	1	5F10007	06/10/2015	06/10/2015
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Surrogate: o-Terphenyl	89.5 %	59-131			"	"	"
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GBTEX + Napthalene by 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	5F09010	06/09/2015	06/09/2015
Benzene	ND	0.002	"	"	"	"	"
Toluene	ND	0.002	"	"	"	"	"
Ethylbenzene	ND	0.002	"	"	"	"	"
Xylenes, total	ND	0.002	"	"	"	"	"
Naphthalene	ND	0.007	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130			"	"	"
Surrogate: Toluene-d8	92.7 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"

Origins Laboratory, Inc.



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

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

Martin C Eckert III
Project Number: [none]
Project: Noble - Foss #6-42,43,45

SB-04 @ 0.5-1'
6/9/2015 11:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X506110-02 (Soil)

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

Diesel (C10-C28)	ND	50.0	mg/kg	1	5F10007	06/10/2015	06/10/2015
------------------	----	------	-------	---	---------	------------	------------

Surrogate: o-Terphenyl	84.9 %	59-131			"	"	"
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GBTEX + Napthalene by 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	5F09010	06/09/2015	06/09/2015
Benzene	ND	0.002	"	"	"	"	"
Toluene	ND	0.002	"	"	"	"	"
Ethylbenzene	ND	0.002	"	"	"	"	"
Xylenes, total	ND	0.002	"	"	"	"	"
Napthalene	ND	0.007	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	112 %	70-130			"	"	"
Surrogate: Toluene-d8	91.1 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	99.1 %	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 - Foss #6-42,43,45

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 5F09010 - EPA 5030 (soil)

Blank (5F09010-BLK1)

Prepared: 06/09/2015 Analyzed: 06/09/2015

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							
Benzene	ND	0.002	"							
Toluene	ND	0.002	"							
Ethylbenzene	ND	0.002	"							
Xylenes, total	ND	0.002	"							
Naphthalene	ND	0.007	"							
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		111	70-130			
Surrogate: Toluene-d8	58		"	62.5		93.4	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	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 - Foss #6-42,43,45

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 5F09010 - EPA 5030 (soil)										
LCS (5F09010-BS1)					Prepared: 06/09/2015 Analyzed: 06/09/2015					
Benzene	0.101	0.002	mg/kg	0.100		101	70-130			
Toluene	0.090	0.002	"	0.100		89.6	70-130			
Ethylbenzene	0.086	0.002	"	0.100		86.3	70-130			
m,p-Xylene	0.176	0.004	"	0.200		87.9	70-130			
o-Xylene	0.090	0.002	"	0.100		90.3	70-130			
Naphthalene	0.102	0.007	"	0.100		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	58		"	62.5		93.1	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	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 - Foss #6-42,43,45

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 5F09010 - EPA 5030 (soil)										
Matrix Spike (5F09010-MS1)		Source: X506108-01			Prepared: 06/09/2015 Analyzed: 06/09/2015					
Benzene	0.104	0.002	mg/kg	0.100	ND	104	70-130			
Toluene	0.093	0.002	"	0.100	ND	93.0	70-130			
Ethylbenzene	0.088	0.002	"	0.100	ND	88.2	70-130			
m,p-Xylene	0.177	0.004	"	0.200	ND	88.6	70-130			
o-Xylene	0.094	0.002	"	0.100	ND	93.6	70-130			
Naphthalene	0.107	0.007	"	0.100	0.004	103	70-130			
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	58		"	62.5		93.1	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.1	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 - Foss #6-42,43,45

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 5F09010 - EPA 5030 (soil)

Matrix Spike Dup (5F09010-MSD1)		Source: X506108-01			Prepared: 06/09/2015 Analyzed: 06/09/2015					
Benzene	0.103	0.002	mg/kg	0.100	ND	103	70-130	1.32	20	
Toluene	0.092	0.002	"	0.100	ND	91.5	70-130	1.54	20	
Ethylbenzene	0.087	0.002	"	0.100	ND	87.4	70-130	0.934	20	
m,p-Xylene	0.173	0.004	"	0.200	ND	86.4	70-130	2.51	20	
o-Xylene	0.092	0.002	"	0.100	ND	92.0	70-130	1.72	20	
Naphthalene	0.107	0.007	"	0.100	0.004	103	70-130	0.0561	20	
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		102	70-130			
Surrogate: Toluene-d8	58		"	62.5		93.4	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.0	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 - Foss #6-42,43,45

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 5F10007 - EPA 3580

Blank (5F10007-BLK1)

Prepared: 06/10/2015 Analyzed: 06/10/2015

Diesel (C10-C28) ND 50.0 mg/kg

Surrogate: o-Terphenyl 46 " 50.0 92.0 59-131

LCS (5F10007-BS1)

Prepared: 06/10/2015 Analyzed: 06/10/2015

Diesel (C10-C28) 865 50.0 mg/kg 1000 86.5 64-121

Surrogate: o-Terphenyl 48 " 50.0 96.2 59-131

Matrix Spike (5F10007-MS1)

Source: X506110-02

Prepared: 06/10/2015 Analyzed: 06/10/2015

Diesel (C10-C28) 904 50.0 mg/kg 1000 21.1 88.3 53-125

Surrogate: o-Terphenyl 48 " 50.0 96.6 59-131

Matrix Spike Dup (5F10007-MSD1)

Source: X506110-02

Prepared: 06/10/2015 Analyzed: 06/10/2015

Diesel (C10-C28) 902 50.0 mg/kg 1000 21.1 88.1 53-125 0.314 20

Surrogate: o-Terphenyl 51 " 50.0 103 59-131

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 - Foss #6-42,43,45

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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



June 11, 2015

Eagle Environmental Consulting, Inc.

Martin C Eckert III

4101 Inca Street

Denver

CO 80211

Project Name - Noble - Foss #6-42,43,45

Project Number - [none]

Attached are your analytical results for Noble - Foss #6-42,43,45 received by Origins Laboratory, Inc. June 09, 2015. This project is associated with Origins project number X506109-01.

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 - Foss #6-42,43,45

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW-03	X506109-01	Water	June 9, 2015 10:35	06/09/2015 14:05
GW-04	X506109-02	Water	June 9, 2015 11:45	06/09/2015 14:05

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 - Foss #6-42,43,45

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page | of |

ORIGINS
LABORATORY, INC

X506109

Client: EAGLE ENV CONSULTING
Address: 4101 INCA ST
DENVER, CO 80211
Telephone Number: 303.433.0474
Email Address: nicole.woyle-environment.com

Project Manager: MARTIN ECKERT III
Project Name: FOSS #6-42,43,45
Project Number: [none]
Samples Collected By: A. ROUNDELLEY

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #	Other	BTEX	
GW-03	6/9/15	1035	3	X				X					1
GW-04	6/9/15	1145	3	X				X					2
													3
													4
													5
													6
													7
													8
													9
													10

Relinquished By: *[Signature]* Date: 6/9/15 Time: 1405
Relinquished By: *[Signature]* Date: 6/9/15 Time: 1405

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

Date Results Needed: 6/9/15

Temp Received: 2.6

BEU TO JAKS

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 - Foss #6-42,43,45

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X506109

Client: Eagle

Client Project ID: Foss # 6-42, 43, 45

Checklist Completed by: Jeff Smith

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

Date/time completed: 6/9/13

Airbill #: N/A

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

Cooler Number/Temperature: 1 12.6 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: T008

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>HCL</u>
Additional Comments (if any):				

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

Reviewed by (Project Manager)

Date/Time Reviewed 6/10/13

Origins Laboratory, Inc.

Jeff Pellegrini

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Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Noble - Foss #6-42,43,45

GW-03

6/9/2015 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

X506109-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	5F10005	06/10/2015	06/10/2015
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	113 %	87.3-113			"	"	"
Surrogate: Toluene-d8	99.5 %	90.9-108			"	"	"
Surrogate: 4-Bromofluorobenzene	99.0 %	88.6-111			"	"	"

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Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Noble - Foss #6-42,43,45

GW-04

6/9/2015 11:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

X506109-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	5F10005	06/10/2015	06/10/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	114 %	87.3-113			"	"	"	S-07
Surrogate: Toluene-d8	102 %	90.9-108			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.4 %	88.6-111			"	"	"	

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Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Noble - Foss #6-42,43,45

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 5F10005 - EPA 5030B (Water)

Blank (5F10005-BLK1)

Prepared: 06/10/2015 Analyzed: 06/10/2015

Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	69		"	62.5	111		87.3-113			
Surrogate: Toluene-d8	63		"	62.5	101		90.9-108			
Surrogate: 4-Bromofluorobenzene	61		"	62.5	98.2		88.6-111			

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 - Foss #6-42,43,45

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 5F10005 - EPA 5030B (Water)

LCS (5F10005-BS1)

Prepared: 06/10/2015 Analyzed: 06/10/2015

Benzene	49.2	1.0	ug/L	50.0		98.3	75-126			
Toluene	50.6	1.0	"	50.0		101	78.7-126			
Ethylbenzene	51.1	1.0	"	50.0		102	80-130			
m,p-Xylene	104	2.0	"	100		104	77.2-133			
o-Xylene	52.0	1.0	"	50.0		104	77.9-126			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	87.3-113			
Surrogate: Toluene-d8	63		"	62.5		101	90.9-108			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	88.6-111			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Noble - Foss #6-42,43,45

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 5F10005 - EPA 5030B (Water)

Matrix Spike (5F10005-MS1)		Source: X506109-01			Prepared: 06/10/2015 Analyzed: 06/10/2015					
Benzene	56.2	1.0	ug/L	50.0	ND	112	74-130			
Toluene	58.1	1.0	"	50.0	ND	116	73-131			
Ethylbenzene	61.4	1.0	"	50.0	ND	123	76-132			
m,p-Xylene	123	2.0	"	100	ND	123	69-139			
o-Xylene	60.7	1.0	"	50.0	ND	121	74-131			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	87.3-113			
Surrogate: Toluene-d8	63		"	62.5		100	90.9-108			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.2	88.6-111			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

Eagle Environmental Consulting, Inc.

4101 Inca Street

Denver CO 80211

Martin C Eckert III

Project Number: [none]

Project: Noble - Foss #6-42,43,45

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 5F10005 - EPA 5030B (Water)

Matrix Spike Dup (5F10005-MSD1)		Source: X506109-01			Prepared: 06/10/2015 Analyzed: 06/10/2015					
Benzene	63.4	1.0	ug/L	50.0	ND	127	74-130	12.0	20	
Toluene	64.6	1.0	"	50.0	ND	129	73-131	10.6	20	
Ethylbenzene	66.9	1.0	"	50.0	ND	134	76-132	8.58	20	QM-07
m,p-Xylene	133	2.0	"	100	ND	133	69-139	7.69	20	
o-Xylene	64.3	1.0	"	50.0	ND	129	74-131	5.71	20	
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		104	87.3-113			
Surrogate: Toluene-d8	63		"	62.5		101	90.9-108			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.5	88.6-111			

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 - Foss #6-42,43,45

Notes and Definitions

S-07 High surrogate in sample, however sample is non-detect. High surrogate indicates result values are biased high.

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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