

800 Airport Road  
Suite 3  
Rifle, CO 81650

Tel: 970.625.1494  
Fax: 970.625.1654

www.nobleenergyinc.com



July 7, 2010

Chris Canfield  
Environmental Protection Specialist, Northwest Region  
Colorado Oil & Gas Conservation Commission  
707 Wapiti Court, Suite 204  
Rifle, CO 81650

RE: SGV 260 Pad  
Landfarm Closure Sundry  
Sec.26 T7S R96W  
Garfield County, Colorado

Dear Mr. Canfield:

Noble Energy Inc. (NEI) is submitting the attached sundry Form 4 as a notification to the COGCC of the closure of the landfarm on our SGV 260 well pad. The attached sundry provides details about the physical closure of the landfarm as well as confirmation soil sample results.

Also enclosed is a site map showing the location of the closed landfarm, a topographical map of the pad and surrounding area, and laboratory results for both the confirmation samples as well as background levels.

Based on the removal of the landfarm contents, remedial measures taken, and the results of the confirmation soil sampling, NEI would like to request COGCC closure of the facility, requiring no further action.

Please do not hesitate to contact me at (970) 420-5184 if you have any questions or require additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Brandon Danforth'.

Brandon Danforth  
Environmental Specialist

Attachments



DE	ET	GE	ES

SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

1. OGCC Operator Number: <u>100322</u>	4. Contact Name <u>Brandon Danforth</u>	Complete the Attachment Checklist  OP OGCC
2. Name of Operator: <u>Noble Energy Inc.</u>	Phone: <u>970-420-5184</u>	
3. Address: <u>800 Airport Road, Suite 3</u> City: <u>Rifle</u> State: <u>CO</u> Zip: <u>81650</u>	Fax: <u>970-625-1654</u>	
5. API Number <u>05- see attached</u>	OGCC Facility ID Number	Survey Plat
6. Well/Facility Name: <u>SGV 26O Pad</u>	7. Well/Facility Number	Directional Survey
8. Location (QtrQtr, Sec, Twp, Rng, Meridian): <u>NWNE 26 7S 96W 6 PM</u>		Surface Eqpmt Diagram
9. County: <u>Garfield</u>	10. Field Name:	Technical Info Page <input checked="" type="checkbox"/>
11. Federal, Indian or State Lease Number:		Other

General Notice

CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)

Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Bottomhole location Qtr/Qtr, Sec, Twp, Rng, Mer \_\_\_\_\_  
Latitude \_\_\_\_\_ Distance to nearest property line \_\_\_\_\_ Distance to nearest bldg, public rd, utility or RR \_\_\_\_\_  
Longitude \_\_\_\_\_ Distance to nearest lease line \_\_\_\_\_ Is location in a High Density Area (rule 603b)? Yes/No   
Ground Elevation \_\_\_\_\_ Distance to nearest well same formation \_\_\_\_\_ Surface owner consultation date: \_\_\_\_\_

GPS DATA:  
Date of Measurement \_\_\_\_\_ PDOP Reading \_\_\_\_\_ Instrument Operator's Name \_\_\_\_\_

CHANGE SPACING UNIT

Formation	Formation Code	Spacing order number	Unit Acreage	Unit configuration

Remove from surface bond  
Signed surface use agreement attached

CHANGE OF OPERATOR (prior to drilling):  
Effective Date: \_\_\_\_\_  
Plugging Bond:  Blanket  Individual

CHANGE WELL NAME NUMBER  
From: \_\_\_\_\_  
To: \_\_\_\_\_  
Effective Date: \_\_\_\_\_

ABANDONED LOCATION:  
Was location ever built?  Yes  No  
Is site ready for inspection?  Yes  No  
Date Ready for Inspection: \_\_\_\_\_

NOTICE OF CONTINUED SHUT IN STATUS  
Date well shut in or temporarily abandoned: \_\_\_\_\_  
Has Production Equipment been removed from site?  Yes  No  
MIT required if shut in longer than two years. Date of last MIT \_\_\_\_\_

SPUD DATE: \_\_\_\_\_

REQUEST FOR CONFIDENTIAL STATUS (6 mos from date casing set)

SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK \*submit cbl and cement job summaries

Method used	Cementing tool setting/perf depth	Cement volume	Cement top	Cement bottom	Date

RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.  
Final reclamation will commence on approximately \_\_\_\_\_  Final reclamation is completed and site is ready for inspection.

Technical Engineering/Environmental Notice

Notice of Intent Approximate Start Date: \_\_\_\_\_

Report of Work Done Date Work Completed: \_\_\_\_\_

Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)

<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input type="checkbox"/> Status Update/Change of Remediation Plans
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: <u>E&amp;P Waste Treatment</u>	for Spills and Releases

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed:  Date: 7-7-2010 Email: bdanforth@nobleenergyinc.com  
Print Name: Brandon Danforth Title: Environmental Specialist

COGCC Approved: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: <u>100322</u> API Number: <u>see below</u>
2. Name of Operator: <u>Noble Energy Inc.</u> OGCC Facility ID # _____
3. Well/Facility Name: <u>SGV 26O Pad</u> Well/Facility Number: _____
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): <u>NWNE 26 7S 96W 6 PM</u>

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. **DESCRIBE PROPOSED OR COMPLETED OPERATIONS**

Noble Energy Inc (NEI) constructed a small landfarm (15' W x 20' L x 3' D) on the SGV 26O well pad to treat filtered flowback sand from wells on location. The landfarm construction was completed around the end of March 2010 (see prior Sundry). The API numbers for the wells on location that contributed flowback sand to the landfarm are listed below:

- API 0504515691 - Parachute Ranch 26-24D
- API 0504515686 - Parachute Ranch 26-44A
- API 0504515685 - Parachute Ranch 26-44B
- API 0504515692 - Parachute Ranch 26-44C
- API 0504515687 - Parachute Ranch 26-44D
- API 0504515681 - Parachute Ranch 26-34C
- API 0504515688 - Parachute Ranch 26-34D
- API 0504515690 - Parachute Ranch 26-24C
- API 0504515683 - Parachute Ranch 26-24B
- API 0504515682 - Parachute Ranch 26-24A
- API 0504515684 - Parachute Ranch 26-34A

The initial plans were to turn the landfarm until its contents met Table 910-1 standards; however, it was later determined to dispose of the landfarm material at a local landfill (South Canyon Landfill). The contents of the landfarm were removed and brought to the landfill in mid-May 2010. The containment earthen berms were bladed to the side.

After the material was removed, confirmation soil samples were collected from the area beneath the landfarm and analyzed for all Table 910-1 soil analytes. Approximately four grab samples were collected at or near the surface, composited and analyzed. All results from the confirmation soil sample met Table 910-1 standards except for TPH (1490 mg/kg) and arsenic (3.5 mg/kg). The fill berm material was mixed with the surface material to lower the TPH concentrations and the area resampled for TPH on 6/15/2010 as a composite of four grab samples. The resampled TPH was 65.9 mg/kg; below Table 910-1 concentrations. The measured arsenic levels are below the background level (4.01 mg/kg). All the confirmation and background soil sample laboratory reports are attached.

NEI requests the application of T910-1 footnote 1 to this case in consideration of the naturally high background As value at this location. In light of the remedial measures taken at the site, NEI also requests written COGCC closure of this landfarm.

- Attachments:
- Site Map
  - Topo Map
  - Confirmation Laboratory Reports (2)
  - Background Laboratory Report

6/30/2010

Noble Energy, Inc. - Rifle  
Brandon Danforth  
800 Airport Road, Suite 3  
Rifle CO 81650

Project Name- FS LF Closure

Project Number- [none]

Attached are your analytical results for FS LF Closure received by Origins Laboratory, Inc. May 26, 2010 9:00 am. This project is associated with Origins project number X005169-01

The analytical results in the following report were analyzed under the guidelines of EPA Methods specified in SW-846. The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody.

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



Noble Energy, Inc. - Rifle  
800 Airport Road, Suite 3  
Rifle CO 81650

Brandon Danforth  
Project Number: [none]  
Project: FS LF Closure

**CROSS REFERENCE REPORT**

Sample ID	Laboratory ID	Matrix	Sampled	Date Received
35B-1	X005169-01	Soil	5/25/2010 1:25:00PM	05/26/2010 09:00
260-1	X005169-02	Soil	5/25/2010 1:45:00PM	05/26/2010 09:00

Origins Laboratory, Inc.



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Noelle E Doyle, Laboratory Manager

Noble Energy, Inc. - Rifle  
 800 Airport Road, Suite 3  
 Rifle CO 81650

Brandon Danforth  
 Project Number: [none]  
 Project: FS LF Closure

X605109  
 page 1 of 1



originslaboratory.com

Client: Noble Energy  
 Address: 800 Airport Rd Ste 3  
 Rifle CO 81650  
 Telephone Number: 970-420-5184  
 E-Mail Address:

Project Manager: B. Danforth  
 Project Name: FS LF Closure  
 Project Number:  
 Samples Collected by: B. Danforth

Sample ID - Description	Date Sampled	Time Sampled	Preservative				Matrix			Analysis
			Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air - Summa Canister #	
3SB-1	5-25-10	1325	X							All COGCC Table 910-1 soil analysis
260-1	"	1345	X							
										Sample Instructions
										1
										2
										3
										4
										5
										6
										7
										8
										9
										10
Reinquisitioned by: B. Danforth	Date: 5-25-10	Time: 1700	Received by: FedEx	Date: 5-25-10	Time: 1700	Temperature Upon Receipt:				
Reinquisitioned by: FedEx	Date: 5-26-10	Time: 0900	Received by: FedEx	Date: 5-26-10	Time: 0900	Turn Around Time:				
						Same Day	24 hr	48 hr	72 hr	Standard

4640 North Peoria Street | Unit C | Denver, Colorado 80211 | Laboratory - 303.433.1322 | Fax - 303.265.9645

Origins Laboratory, Inc.

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Noelle E Doyle, Laboratory Manager

Noble Energy, Inc. - Rifle  
 800 Airport Road, Suite 3  
 Rifle CO 81650

Brandon Danforth  
 Project Number: [none]  
 Project: FS LF Closure

260-1

5/25/2010 1:45:00PM

Analyte	Result	Minimum Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
 X005169-02 (Soil)

**BTEX by EPA 8260B**

Benzene	ND	0.00041	0.00400	mg/kg	1	0E29001	05/29/2010	05/30/2010	
Toluene	0.00420	0.00043	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00033	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00034	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00073	0.00800	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	95.7 %		77.6-134			"	"	"	
Surrogate: Toluene-d8	105 %		81.4-121			"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %		74.7-123			"	"	"	

**Conductivity by E120.1**

Conductivity	1470	1	2	US/CM	1	808806	06/01/2010	06/01/2010	
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**Metals by SW6010B**

Sodium	719	10.2	29	mg/kg	1	809123	05/28/2010	06/03/2010	
Zinc	36.9	2.09	5.8	"	"	"	"	"	
Silver	ND	0.174	2.32	"	"	"	"	"	
Selenium	ND	0.673	2.32	"	"	"	"	"	
Nickel	10.5	0.36	1.16	"	"	"	"	"	
Magnesium	7680	3.02	23.2	"	"	"	"	"	

Origins Laboratory, Inc.



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Noelle E Doyle, Laboratory Manager

Noble Energy, Inc. - Rifle  
 800 Airport Road, Suite 3  
 Rifle CO 81650

Brandon Danforth  
 Project Number: [none]  
 Project: FS LF Closure

260-1

5/25/2010 1:45:00PM

Analyte	Result	Minimum Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**XENCO**

X005169-02 (Soil)

**Metals by SW6010B**

Lead	11	0.916	1.16	mg/kg	1	809123	05/28/2010	06/03/2010	
Copper	15	0.325	3.48	"	"	"	"	"	
Chromium	8.78	0.36	0.58	"	"	"	"	"	
Calcium	36200	9.86	23.2	"	"	"	"	"	v
Cadmium	ND	0.174	0.58	"	"	"	"	"	
Barium	471	0.336	3.48	"	"	"	"	"	

**Metals by SW6020**

Arsenic	3.5	0.104	0.58	mg/kg	1	809224	06/01/2010	06/04/2010	
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**Metals by SW7196**

Chromium, Hexavalent	ND	0.058	4.64	mg/kg	10	809439	06/04/2010	06/04/2010	
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**Metals by SW7471A**

Mercury	0.0398	0.0044	0.0101	mg/kg	1	809049	05/28/2010	06/03/2010	v
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**Percent Moisture by AD2216A**

Percent Moisture	13.8	1	1	%	1	808473	05/27/2010	05/27/2010	
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**pH by SW9045C**

pH	8.05	0.001		SU	1	808810	06/01/2010	06/01/2010	
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Origins Laboratory, Inc.



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Noelle E Doyle, Laboratory Manager

Noble Energy, Inc. - Rifle  
 800 Airport Road, Suite 3  
 Rifle CO 81650

Brandon Danforth  
 Project Number: [none]  
 Project: FS LF Closure

260-1

5/25/2010 1:45:00PM

Analyte	Result	Minimum Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**XENCO**

X005169-02 (Soil)

**Polyaromatic Hydrocarbons (PaHs) by SW8270C**

Fluoranthene	ND	0.044	0.116	mg/kg	1	808572	05/28/2010	05/28/2010	
Fluorene	0.277	0.027	0.116	"	"	"	"	"	
Indeno(1,2,3-c,d)Pyrene	ND	0.039	0.116	"	"	"	"	"	
Naphthalene	0.268	0.024	0.116	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.023	0.116	"	"	"	"	"	
Pyrene	ND	0.038	0.116	"	"	"	"	"	
Dibenz(a,h)Anthracene	ND	0.031	0.077	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.038	0.116	"	"	"	"	"	
Benzo(a)pyrene	ND	0.029	0.077	"	"	"	"	"	
Benzo(a)anthracene	ND	0.033	0.116	"	"	"	"	"	
Anthracene	ND	0.041	0.116	"	"	"	"	"	
Acenaphthene	0.305	0.026	0.116	"	"	"	"	"	
Chrysene	0.045	0.027	0.116	"	"	"	"	"	1

Surrogate: Nitrobenzene-d5	82 %		46-137			"	"	"	
Surrogate: Terphenyl-D14	99 %		43-124			"	"	"	
Surrogate: 2-Fluorobiphenyl	92 %		59-123			"	"	"	

**Sodium Absorption Ratio (SAR) by S29B08**

Sodium absorption ratio	0.895	0.001			1	809396	06/06/2010	06/06/2010	
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Origins Laboratory, Inc.



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Noelle E Doyle, Laboratory Manager

Noble Energy, Inc. - Rifle  
 800 Airport Road, Suite 3  
 Rifle CO 81650

Brandon Danforth  
 Project Number: [none]  
 Project: FS LF Closure

260-1

5/25/2010 1:45:00PM

Analyte	Result	Minimum Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
 X005169-02 (Soil)

**TPH-Carbon Chain by EPA Method 8015M**

Gasoline (C6-C10)	ND	25.0	50.0	mg/kg	1	0E28002	05/28/2010	05/31/2010	
Diesel (C10-C28)	1490	25.0	50.0	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	100	200	"	"	"	"	"	
TPH - Carbon Chain Total	1490	25.0	50.0	"	"	"	"	"	

Surrogate: o-Terphenyl 101 % 65-140 " " "

Origins Laboratory, Inc.



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Noelle E Doyle, Laboratory Manager

Noble Energy, Inc. - Rifle  
 800 Airport Road, Suite 3  
 Rifle CO 81650

Brandon Danforth  
 Project Number: [none]  
 Project: FS LF Closure

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch OE28002 - Default Prep GC-Semi</b>										
<b>Blank (OE28002-BLK1)</b> Prepared: 05/28/2010 Analyzed: 05/31/2010										
Gasoline (C6-C10)	ND	50.0	mg/kg							
Diesel (C10-C28)	ND	50.0	"							
Residual Range Organics (C28-C36)	ND	200	"							
TPH - Carbon Chain Total	ND	50.0	"							
<i>Surrogate: o-Terphenyl</i>	<i>44.5</i>		<i>g</i>	<i>50.0</i>		<i>89.0</i>	<i>65-140</i>			
<b>Blank (OE28002-BLK2)</b> Prepared: 05/28/2010 Analyzed: 05/31/2010										
Gasoline (C6-C10)	ND	50.0	mg/kg							
Diesel (C10-C28)	ND	50.0	"							
Residual Range Organics (C28-C36)	ND	200	"							
TPH - Carbon Chain Total	ND	50.0	"							
<i>Surrogate: o-Terphenyl</i>	<i>44.5</i>		<i>g</i>	<i>50.0</i>		<i>89.0</i>	<i>65-140</i>			
<b>LCS (OE28002-BS1)</b> Prepared: 05/28/2010 Analyzed: 05/31/2010										
Gasoline (C6-C10)	115	50.0	mg/kg				65-140			
Diesel (C10-C28)	408	50.0	"	500		81.6	60-140			
<i>Surrogate: o-Terphenyl</i>	<i>46.8</i>		<i>g</i>	<i>50.0</i>		<i>93.6</i>	<i>65-140</i>			
<b>LCS (OE28002-BS2)</b> Prepared: 05/28/2010 Analyzed: 05/31/2010										
Gasoline (C6-C10)	119	50.0	mg/kg				65-140			
Diesel (C10-C28)	426	50.0	"	500		85.2	60-140			
<i>Surrogate: o-Terphenyl</i>	<i>47.8</i>		<i>g</i>	<i>50.0</i>		<i>95.6</i>	<i>65-140</i>			
<b>Matrix Spike (OE28002-MS1)</b> Source: X005144-01 Prepared: 05/28/2010 Analyzed: 05/31/2010										
Gasoline (C6-C10)	116	50.0	mg/kg		ND		65-130			
Diesel (C10-C28)	413	50.0	"	500	ND	82.6	60-140			
<i>Surrogate: o-Terphenyl</i>	<i>47.4</i>		<i>g</i>	<i>50.0</i>		<i>94.7</i>	<i>65-140</i>			

Origins Laboratory, Inc.



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Noelle E Doyle, Laboratory Manager

Noble Energy, Inc. - Rifle  
 800 Airport Road, Suite 3  
 Rifle CO 81650

Brandon Danforth  
 Project Number: [none]  
 Project: FS LF Closure

## Extractable Petroleum Hydrocarbons by 8015M - 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 OE28002 - Default Prep GC-Semi

<b>Matrix Spike (OE28002-MS2)</b>		Source: X005144-02			Prepared: 05/28/2010 Analyzed: 05/31/2010					
Gasoline (C6-C10)	114	50.0	mg/kg		ND		65-130			
Diesel (C10-C28)	411	50.0	"	500	ND	82.2	60-140			
<i>Surrogate: o-Terphenyl</i>	<i>46.9</i>		<i>g</i>	<i>50.0</i>		<i>93.8</i>	<i>65-140</i>			
<b>Matrix Spike Dup (OE28002-MSD1)</b>		Source: X005144-01			Prepared: 05/28/2010 Analyzed: 05/31/2010					
Gasoline (C6-C10)	114	50.0	mg/kg		ND		65-130	1.31	20	
Diesel (C10-C28)	408	50.0	"	500	ND	81.7	60-140	1.10	25	
<i>Surrogate: o-Terphenyl</i>	<i>47.0</i>		<i>g</i>	<i>50.0</i>		<i>93.9</i>	<i>65-140</i>			
<b>Matrix Spike Dup (OE28002-MSD2)</b>		Source: X005144-02			Prepared: 05/28/2010 Analyzed: 05/31/2010					
Gasoline (C6-C10)	117	50.0	mg/kg		ND		65-130	2.89	20	
Diesel (C10-C28)	413	50.0	"	500	ND	82.5	60-140	0.403	25	
<i>Surrogate: o-Terphenyl</i>	<i>46.9</i>		<i>g</i>	<i>50.0</i>		<i>93.7</i>	<i>65-140</i>			

Origins Laboratory, Inc.



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Noelle E Doyle, Laboratory Manager

Noble Energy, Inc. - Rifle  
 800 Airport Road, Suite 3  
 Rifle CO 81650

Brandon Danforth  
 Project Number: [none]  
 Project: FS LF Closure

## Volatile Organic Compounds by EPA Method 8260B - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch OE29001 - EPA 5030B</b>										
<b>Blank (OE29001-BLK1)</b>					Prepared: 05/29/2010 Analyzed: 05/29/2010					
Benzene	ND	0.004	mg/kg							
Toluene	ND	0.004	"							
Ethylbenzene	ND	0.004	"							
o-Xylene	ND	0.004	"							
m,p-Xylene	ND	0.008	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>59.0</i>		<i>ug/L</i>	<i>62.5</i>		<i>94.4</i>	<i>77.6-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>63.5</i>		<i>"</i>	<i>62.5</i>		<i>102</i>	<i>81.4-121</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>66.1</i>		<i>"</i>	<i>62.5</i>		<i>106</i>	<i>74.7-123</i>			
<b>Blank (OE29001-BLK2)</b>					Prepared: 05/29/2010 Analyzed: 05/29/2010					
Benzene	ND	0.004	mg/kg							
Toluene	ND	0.004	"							
Ethylbenzene	ND	0.004	"							
o-Xylene	ND	0.004	"							
m,p-Xylene	ND	0.008	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>59.4</i>		<i>ug/L</i>	<i>62.5</i>		<i>95.0</i>	<i>77.6-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>64.4</i>		<i>"</i>	<i>62.5</i>		<i>103</i>	<i>81.4-121</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>63.5</i>		<i>"</i>	<i>62.5</i>		<i>102</i>	<i>74.7-123</i>			
<b>LCS (OE29001-BS1)</b>					Prepared: 05/29/2010 Analyzed: 05/29/2010					
Benzene	0.20	0.004	mg/kg	0.200		101	75.2-128			
Toluene	0.20	0.004	"	0.200		99.9	76.3-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>58.0</i>		<i>ug/L</i>	<i>62.5</i>		<i>92.8</i>	<i>77.6-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>65.8</i>		<i>"</i>	<i>62.5</i>		<i>105</i>	<i>81.4-121</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>68.4</i>		<i>"</i>	<i>62.5</i>		<i>109</i>	<i>74.7-123</i>			
<b>LCS (OE29001-BS2)</b>					Prepared: 05/29/2010 Analyzed: 05/29/2010					
Benzene	0.21	0.004	mg/kg	0.200		104	75.2-128			

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Brandon Danforth  
 Project Number: [none]  
 Project: FS LF Closure

## Volatile Organic Compounds by EPA Method 8260B - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch OE29001 - EPA 5030B</b>										
<b>LCS (OE29001-BS2)</b>				Prepared: 05/29/2010 Analyzed: 05/29/2010						
Toluene	0.20	0.004	mg/kg	0.200		101	76.3-130			
Surrogate: 1,2-Dichloroethane-d4	59.2		ug/L	62.5		94.7	77.6-134			
Surrogate: Toluene-d8	66.0		"	62.5		106	81.4-121			
Surrogate: 4-Bromofluorobenzene	65.9		"	62.5		105	74.7-123			
<b>Matrix Spike (OE29001-MS1)</b>		Source: X005151-04		Prepared: 05/29/2010 Analyzed: 05/29/2010						
Benzene	0.17	0.004	mg/kg	0.200	ND	86.0	77.6-132			
Toluene	0.16	0.004	"	0.200	0.003	80.7	74-136			
Surrogate: 1,2-Dichloroethane-d4	62.3		ug/L	62.5		99.6	77.6-134			
Surrogate: Toluene-d8	64.4		"	62.5		103	81.4-121			
Surrogate: 4-Bromofluorobenzene	68.2		"	62.5		109	74.7-123			
<b>Matrix Spike (OE29001-MS2)</b>		Source: X005151-05		Prepared: 05/29/2010 Analyzed: 05/29/2010						
Benzene	0.18	0.004	mg/kg	0.200	0.0006	89.8	77.6-132			
Toluene	0.18	0.004	"	0.200	0.004	86.5	74-136			
Surrogate: 1,2-Dichloroethane-d4	60.2		ug/L	62.5		96.3	77.6-134			
Surrogate: Toluene-d8	66.2		"	62.5		106	81.4-121			
Surrogate: 4-Bromofluorobenzene	68.3		"	62.5		109	74.7-123			
<b>Matrix Spike Dup (OE29001-MSD1)</b>		Source: X005151-04		Prepared: 05/29/2010 Analyzed: 05/29/2010						
Benzene	0.18	0.004	mg/kg	0.200	ND	88.2	77.6-132	2.46	13.1	
Toluene	0.17	0.004	"	0.200	0.003	81.9	74-136	1.50	20.9	
Surrogate: 1,2-Dichloroethane-d4	62.3		ug/L	62.5		99.7	77.6-134			
Surrogate: Toluene-d8	64.5		"	62.5		103	81.4-121			
Surrogate: 4-Bromofluorobenzene	66.8		"	62.5		107	74.7-123			
<b>Matrix Spike Dup (OE29001-MSD2)</b>		Source: X005151-05		Prepared: 05/29/2010 Analyzed: 05/29/2010						
Benzene	0.18	0.004	mg/kg	0.200	0.0006	92.2	77.6-132	2.63	13.1	
Toluene	0.18	0.004	"	0.200	0.004	86.4	74-136	0.136	20.9	

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Brandon Danforth  
 Project Number: [none]  
 Project: FS LF Closure

**Volatile Organic Compounds by EPA Method 8260B - 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 OE29001 - EPA 5030B**

**Matrix Spike Dup (OE29001-MSD2)**      Source: X005151-05      Prepared: 05/29/2010 Analyzed: 05/29/2010

Surrogate: 1,2-Dichloroethane-d4	59.6		ug/L	62.5		95.4	77.6-134			
Surrogate: Toluene-d8	64.6		"	62.5		103	81.4-121			
Surrogate: 4-Bromofluorobenzene	68.0		"	62.5		109	74.7-123			

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 Project: FS LF Closure

## Conductivity by E120.1 - Quality Control XENCO

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 808806 - NONE</b>										
<b>LCS (808806-1-BKS)</b>		Source: 808806-1-BKS			Prepared: 06/01/2010 Analyzed: 06/01/2010					
Conductivity	1420	2	US/CM	1410	±1.00	101	80-120	0	20	
<b>BLANK (808806-1-BLK)</b>		Source: 808806-1-BLK			Prepared: 06/01/2010 Analyzed: 06/01/2010					
Conductivity	ND	2	US/CM	0.00			-	0	20	

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## Metals by SW6010B - Quality Control XENCO

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 809123 - SW3050B

MS (374608-001 S)	Source: 374608-001 S			Prepared: 05/28/2010 Analyzed: 06/03/2010						
Magnesium	4890	21.7	mg/kg	2710	2070	104	75-125	0	20	
Sodium	4600	27.1	"	2710	794	140	75-125	0	20	
Nickel	105	1.09	"	109	2.23	94	75-125	0	20	
Lead	146	1.09	"	109	41.2	96	75-125	0	20	
Selenium	124	2.17	"	109	0.91	113	75-125	0	20	
Silver	61.5	2.17	"	54.3	42.17	113	75-125	0	20	
Zinc	156	5.43	"	109	56.5	91	75-125	0	20	
Chromium	117	0.543	"	109	6.45	101	75-125	0	20	
Calcium	306000	21.7	"	2710	264000	NR	75-125	0	20	
Barium	136	3.26	"	109	20.3	106	75-125	0	20	
Copper	555	3.26	"	109	1000		75-125	0	20	
Cadmium	122	0.543	"	109	0.47	111	75-125	0	20	

MSD (374608-001 SD)	Source: 374608-001 SD			Prepared: 05/28/2010 Analyzed: 06/03/2010						
Copper	460	3.26	mg/kg	109	1000		75-125		20	
Magnesium	5210	21.7	"	2710	2070	116	75-125	6	20	
Zinc	161	5.43	"	109	56.5	96	75-125	3	20	
Sodium	3910	27.1	"	2710	794	115	75-125	16	20	
Silver	58.6	2.17	"	54.3	42.17	108	75-125	5	20	
Nickel	104	1.09	"	109	2.23	93	75-125	1	20	
Lead	149	1.09	"	109	41.2	99	75-125	2	20	
Barium	135	3.26	"	109	20.3	105	75-125	1	20	
Calcium	287000	21.7	"	2710	264000	849	75-125	6	20	
Chromium	115	0.543	"	109	6.45	100	75-125	2	20	
Cadmium	119	0.543	"	109	0.47	109	75-125	2	20	
Selenium	122	2.17	"	109	0.91	111	75-125	2	20	

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 Project: FS LF Closure

## Metals by SW6010B - Quality Control XENCO

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 809123 - SW3050B

LCS (564407-1-BKS)		Source: 564407-1-BKS			Prepared: 05/28/2010 Analyzed: 06/03/2010					
Calcium	2670	20	mg/kg	2500	29.9	107	75-125	0	20	
Lead	110	1	"	100	↕0.790	110	75-125	0	20	
Copper	104	3	"	100	↕0.280	104	75-125	0	20	
Chromium	110	0.5	"	100	↕0.310	110	75-125	0	20	
Cadmium	104	0.5	"	100	↕0.150	104	75-125	0	20	
Barium	104	3	"	100	↕0.290	104	75-125	0	20	
Magnesium	2720	20	"	2500	↕2.60	109	75-125	0	20	
Nickel	107	1	"	100	↕0.310	107	75-125	0	20	
Selenium	107	2	"	100	↕0.580	107	75-125	0	20	
Silver	50.5	2	"	50.0	↕0.150	101	75-125	0	20	
Zinc	111	5	"	100	↕1.80	111	75-125	0	20	
Sodium	2700	25	"	2500	↕8.80	108	75-125	0	20	

BLANK (564407-1-BLK)		Source: 564407-1-BLK			Prepared: 05/28/2010 Analyzed: 06/03/2010					
Sodium	ND	25	mg/kg	2500			-	0	20	
Chromium	ND	0.5	"	100			-	0	20	
Copper	ND	3	"	100			-	0	20	
Lead	ND	1	"	100			-	0	20	
Magnesium	ND	20	"	2500			-	0	20	
Nickel	ND	1	"	100			-	0	20	
Silver	ND	2	"	50.0			-	0	20	
Zinc	ND	5	"	100			-	0	20	
Barium	ND	3	"	100			-	0	20	
Cadmium	ND	0.5	"	100			-	0	20	
Calcium	29.9	20	"	2500			-	0	20	
Selenium	ND	2	"	100			-	0	20	

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 Project: FS LF Closure

## Metals by SW6020 - Quality Control XENCO

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 809224 - SW3050B</b>										
<b>MS (374805-001 S)</b>		Source: 374805-001 S			Prepared: 06/01/2010 Analyzed: 06/04/2010					
Arsenic	27.6	0.549	mg/kg	21.9	6.14	98	75-125	0	30	
<b>MSD (374805-001 SD)</b>		Source: 374805-001 SD			Prepared: 06/01/2010 Analyzed: 06/04/2010					
Arsenic	25	0.549	mg/kg	21.9	6.14	86	75-125	10	30	
<b>LCS (564545-1-BKS)</b>		Source: 564545-1-BKS			Prepared: 06/01/2010 Analyzed: 06/03/2010					
Arsenic	17.3	0.5	mg/kg	20.0	←0.090	87	75-125	0	30	
<b>BLANK (564545-1-BLK)</b>		Source: 564545-1-BLK			Prepared: 06/01/2010 Analyzed: 06/03/2010					
Arsenic	ND	0.5	mg/kg	20.0			-	0	30	

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## Metals by SW7196 - Quality Control XENCO

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 809439 - SW3060A</b>										
<b>MS (374607-001 S)</b>										
				Source: 374607-001 S		Prepared: 06/04/2010 Analyzed: 06/04/2010				
Chromium, Hexavalent	2.82	4.57	mg/kg	2.85	←4.57	99	80-120	0	20	I
<b>MSD (374607-001 SD)</b>										
				Source: 374607-001 SD		Prepared: 06/04/2010 Analyzed: 06/04/2010				
Chromium, Hexavalent	2.84	4.57	mg/kg	2.85	←4.57	100	80-120	1	20	I
<b>LCS (809439-1-BKS)</b>										
				Source: 809439-1-BKS		Prepared: 06/04/2010 Analyzed: 06/04/2010				
Chromium, Hexavalent	2.57	4	mg/kg	2.50	←0.005	103	80-120	0	20	I
<b>BLANK (809439-1-BLK)</b>										
				Source: 809439-1-BLK		Prepared: 06/04/2010 Analyzed: 06/04/2010				
Chromium, Hexavalent	ND	0.4	mg/kg	0.400			-	0	20	

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 Project: FS LF Closure

## Metals by SW7471A - Quality Control XENCO

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 809049 - SW7471P</b>										
<b>MS (374613-001 S)</b>										
				Source: 374613-001 S		Prepared: 05/28/2010 Analyzed: 06/03/2010				
Mercury	0.2073	0.0102	mg/kg	0.157	0.0323	111	75-125	0	20	
<b>MSD (374613-001 SD)</b>										
				Source: 374613-001 SD		Prepared: 05/28/2010 Analyzed: 06/03/2010				
Mercury	0.1971	0.0102	mg/kg	0.157	0.0323	105	75-125	5	20	
<b>LCS (564405-1-BKS)</b>										
				Source: 564405-1-BKS		Prepared: 05/28/2010 Analyzed: 06/03/2010				
Mercury	0.16	0.0087	mg/kg	0.133	0.0044	120	75-125	0	20	
<b>BLANK (564405-1-BLK)</b>										
				Source: 564405-1-BLK		Prepared: 05/28/2010 Analyzed: 06/03/2010				
Mercury	0.0044	0.0087	mg/kg	0.133			-	0	20	I

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Project Number: [none]  
Project: FS LF Closure

**Percent Moisture by AD2216A - Quality Control  
XENCO**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 808473 - NONE

BLANK (808473-1-BLK)

Source: 808473-1-BLK

Prepared: 05/27/2010 Analyzed: 05/27/2010

Percent Moisture	ND	1	%	0.00		-		0	20	
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 Project Number: [none]  
 Project: FS LF Closure

## Polyaromatic Hydrocarbons (PAHs) by SW8270C - Quality Control XENCO

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 808572 - SW3550

MS (374565-002 S)		Source: 374565-002 S			Prepared: 05/28/2010 Analyzed: 05/28/2010					
Benzo(k)fluoranthene	1.42	0.114	mg/kg	1.90	↔0.114	75	60-112	0	20	
Fluoranthene	1.72	0.114	"	1.90	↔0.114	91	59-106	0	20	
Pyrene	1.74	0.114	"	1.90	↔0.114	92	49-125	0	20	
Naphthalene	1.51	0.114	"	1.90	↔0.114	79	50-105	0	20	
Benzo(a)pyrene	1.62	0.075	"	1.90	↔0.075	85	62-104	0	20	
Fluorene	1.53	0.114	"	1.90	↔0.114	81	54-115	0	20	
Dibenz(a,h)Anthracene	1.8	0.075	"	1.90	↔0.075	95	47-120	0	20	
Chrysene	1.81	0.114	"	1.90	↔0.114	95	61-106	0	20	
Benzo(b)fluoranthene	2.08	0.114	"	1.90	↔0.114	109	61-108	0	20	
Benzo(a)anthracene	1.79	0.114	"	1.90	↔0.114	94	51-119	0	20	
Anthracene	1.5	0.114	"	1.90	↔0.114	79	59-104	0	20	
Acenaphthene	1.52	0.114	"	1.90	↔0.114	80	48-119	0	20	
Indeno(1,2,3-c,d)Pyrene	1.82	0.114	"	1.90	↔0.114	96	70-130	0	30	
Surrogate: Terphenyl-D14	1.88		PERCENT	1.67		113	43-124			
Surrogate: Nitrobenzene-d5	1.39		"	1.67		83	46-137			
Surrogate: 2-Fluorobiphenyl	1.48		"	1.67		89	59-123			

MSD (374565-002 SD)		Source: 374565-002 SD			Prepared: 05/28/2010 Analyzed: 05/28/2010					
Indeno(1,2,3-c,d)Pyrene	1.82	0.114	mg/kg	1.90	↔0.114	96	70-130	0	30	
Naphthalene	1.41	0.114	"	1.90	↔0.114	74	50-105	7	20	
Fluoranthene	1.75	0.114	"	1.90	↔0.114	92	59-106	2	20	
Fluorene	1.51	0.114	"	1.90	↔0.114	79	54-115	1	20	
Dibenz(a,h)Anthracene	1.81	0.075	"	1.90	↔0.075	95	47-120	1	20	
Chrysene	1.8	0.114	"	1.90	↔0.114	95	61-106	1	20	
Benzo(k)fluoranthene	1.37	0.114	"	1.90	↔0.114	72	60-112	4	20	
Benzo(b)fluoranthene	2.16	0.114	"	1.90	↔0.114	114	61-108	4	20	
Benzo(a)pyrene	1.64	0.075	"	1.90	↔0.075	86	62-104	1	20	

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 Project Number: [none]  
 Project: FS LF Closure

## Polyaromatic Hydrocarbons (PAHs) by SW8270C - Quality Control XENCO

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 808572 - SW3550

MSD (374565-002 SD)		Source: 374565-002 SD			Prepared: 05/28/2010 Analyzed: 05/28/2010					
Benzo(a)anthracene	1.79	0.114	mg/kg	1.90	↕0.114	94	51-119	0	20	
Anthracene	1.5	0.114	"	1.90	↕0.114	79	59-104	0	20	
Acenaphthene	1.48	0.114	"	1.90	↕0.114	78	48-119	3	20	
Pyrene	1.72	0.114	"	1.90	↕0.114	91	49-125	1	20	
<i>Surrogate: Terphenyl-D14</i>	<i>1.88</i>		<i>PERCENT</i>	<i>1.66</i>		<i>113</i>	<i>43-124</i>			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.51</i>		<i>"</i>	<i>1.66</i>		<i>91</i>	<i>59-123</i>			
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.39</i>		<i>"</i>	<i>1.66</i>		<i>84</i>	<i>46-137</i>			

LCS (564380-1-BKS)		Source: 564380-1-BKS			Prepared: 05/28/2010 Analyzed: 05/28/2010					
Dibenz(a,h)Anthracene	1.55	0.066	mg/kg	1.67	↕0.027	93	47-120	0	20	
Pyrene	1.58	0.1	"	1.67	↕0.033	95	49-125	0	20	
Naphthalene	1.39	0.1	"	1.67	↕0.021	83	50-105	0	20	
Indeno(1,2,3-c,d)Pyrene	1.56	0.1	"	1.67	↕0.034	93	70-130	0	30	
Fluoranthene	1.51	0.1	"	1.67	↕0.038	90	59-106	0	20	
Benzo(k)fluoranthene	1.53	0.1	"	1.67	↕0.033	92	60-112	0	20	
Benzo(b)fluoranthene	1.44	0.1	"	1.67	↕0.020	86	61-108	0	20	
Benzo(a)pyrene	1.42	0.066	"	1.67	↕0.025	85	62-104	0	20	
Benzo(a)anthracene	1.54	0.1	"	1.67	↕0.028	92	51-119	0	20	
Anthracene	1.44	0.1	"	1.67	↕0.035	86	59-104	0	20	
Acenaphthene	1.43	0.1	"	1.67	↕0.022	86	48-119	0	20	
Fluorene	1.42	0.1	"	1.67	↕0.023	85	54-115	0	20	
Chrysene	1.48	0.1	"	1.67	↕0.023	89	61-106	0	20	
<i>Surrogate: Terphenyl-D14</i>	<i>1.96</i>		<i>PERCENT</i>	<i>1.67</i>		<i>117</i>	<i>43-124</i>			
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.57</i>		<i>"</i>	<i>1.67</i>		<i>94</i>	<i>46-137</i>			
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.61</i>		<i>"</i>	<i>1.67</i>		<i>96</i>	<i>59-123</i>			

BLANK (564380-1-BLK)		Source: 564380-1-BLK			Prepared: 05/28/2010 Analyzed: 05/28/2010					
Fluorene	ND	0.1	mg/kg	1.67				0	20	

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.

Noelle E Doyle, Laboratory Manager

Noble Energy, Inc. - Rifle  
 800 Airport Road, Suite 3  
 Rifle CO 81650

Brandon Danforth  
 Project Number: [none]  
 Project: FS LF Closure

## Polyaromatic Hydrocarbons (PAHs) by SW8270C - Quality Control XENCO

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 808572 - SW3550

BLANK (564380-1-BLK)	Source: 564380-1-BLK			Prepared: 05/28/2010 Analyzed: 05/28/2010						
Indeno(1,2,3-c,d)Pyrene	ND	0.1	mg/kg	1.67	-	0	30			
Naphthalene	ND	0.1	"	1.67	-	0	20			
Fluoranthene	ND	0.1	"	1.67	-	0	20			
Benzo(a)anthracene	ND	0.1	"	1.67	-	0	20			
Pyrene	ND	0.1	"	1.67	-	0	20			
Dibenz(a,h)Anthracene	ND	0.066	"	1.67	-	0	20			
Chrysene	ND	0.1	"	1.67	-	0	20			
Benzo(k)fluoranthene	ND	0.1	"	1.67	-	0	20			
Benzo(a)pyrene	ND	0.066	"	1.67	-	0	20			
Anthracene	ND	0.1	"	1.67	-	0	20			
Acenaphthene	ND	0.1	"	1.67	-	0	20			
Benzo(b)fluoranthene	ND	0.1	"	1.67	-	0	20			
<i>Surrogate: Nitrobenzene-d5</i>	<i>1.63</i>		<i>PERCENT</i>	<i>1.67</i>	<i>98</i>	<i>46-137</i>				
<i>Surrogate: Terphenyl-D14</i>	<i>1.96</i>		<i>"</i>	<i>1.67</i>	<i>117</i>	<i>43-124</i>				
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>1.62</i>		<i>"</i>	<i>1.67</i>	<i>97</i>	<i>59-123</i>				

Origins Laboratory, Inc.



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Noelle E Doyle, Laboratory Manager

Noble Energy, Inc. - Rifle  
800 Airport Road, Suite 3  
Rifle CO 81650

Brandon Danforth  
Project Number: [none]  
Project: FS LF Closure

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**Notes and Definitions**

- V detected in sample and blank
- I Sample result was found between MDL and RL
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference

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.*

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Noelle E Doyle, Laboratory Manager

6/24/2010

Olsson Associates

Tim Dobransky

826 21 1/2 Road

Grand Junction CO 81505

Project Name- 260 Sampling

Project Number- [none]

Attached are your analytical results for 260 Sampling received by Origins Laboratory, Inc. June 16, 2010 12:30 pm. This project is associated with Origins project number X006111-01 .

The analytical results in the following report were analyzed under the guidelines of EPA Methods specified in SW-846. The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody.

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



Olsson Associates  
826 21 1/2 Road  
Grand Junction CO 81505

Tim Dobransky  
Project Number: [none]  
Project: 260 Sampling

**CROSS REFERENCE REPORT**

Sample ID	Laboratory ID	Matrix	Sampled	Date Received
260 Confirm	X006111-01	Soil	6/15/2010 1:30:00PM	06/16/2010 12:30

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.*

Noelle E Doyle, Laboratory Manager



Olsson Associates  
826 21 1/2 Road  
Grand Junction CO 81505

Tim Dobransky  
Project Number: [none]  
Project: 260 Sampling

**260 Confirm**

6/15/2010 1:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
X006111-01 (Soil)

**GRO (TVPH)/DRO (TEPH)by EPA 8015M**

Gasoline (C6-C10)	ND	50.0	mg/kg	1	OF17003	06/17/2010	06/17/2010	
Diesel (C10-C28)	65.9	50.0	"	"	"	"	"	

Surrogate: o-Terphenyl	94.0 %	65-140			"	"	"	
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Origins Laboratory, Inc.



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

Noelle E Doyle, Laboratory Manager

Olsson Associates  
 826 21 1/2 Road  
 Grand Junction CO 81505

Tim Dobransky  
 Project Number: [none]  
 Project: 260 Sampling

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch OF17003 - Default Prep GC-Semi</b>										
<b>Blank (OF17003-BLK1)</b>					Prepared: 06/17/2010 Analyzed: 06/17/2010					
Gasoline (C6-C10)	ND	50.0	mg/kg							
Diesel (C10-C28)	ND	50.0	"							
<i>Surrogate: o-Terphenyl</i>	46.4		g	50.0		92.8	65-140			
<b>LCS (OF17003-BS1)</b>					Prepared: 06/17/2010 Analyzed: 06/17/2010					
Gasoline (C6-C10)	118	50.0	mg/kg				65-140			
Diesel (C10-C28)	447	50.0	"	500		89.3	60-140			
<i>Surrogate: o-Terphenyl</i>	48.1		g	50.0		96.3	65-140			
<b>Matrix Spike (OF17003-MS1)</b>					Source: X006111-01		Prepared: 06/17/2010 Analyzed: 06/17/2010			
Gasoline (C6-C10)	122	50.0	mg/kg		ND		65-130			
Diesel (C10-C28)	496	50.0	"	500	65.9	86.0	60-140			
<i>Surrogate: o-Terphenyl</i>	47.5		g	50.0		94.9	65-140			
<b>Matrix Spike Dup (OF17003-MSD1)</b>					Source: X006111-01		Prepared: 06/17/2010 Analyzed: 06/17/2010			
Gasoline (C6-C10)	117	50.0	mg/kg		ND		65-130	4.13	20	
Diesel (C10-C28)	485	50.0	"	500	65.9	83.7	60-140	2.36	25	
<i>Surrogate: o-Terphenyl</i>	47.6		g	50.0		95.2	65-140			

Origins Laboratory, Inc.



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Noelle E Doyle, Laboratory Manager

Olsson Associates  
826 21 1/2 Road  
Grand Junction CO 81505

Tim Dobransky  
Project Number: [none]  
Project: 260 Sampling

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**Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit  
RPD Relative Percent Difference

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.*

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Noelle E Doyle, Laboratory Manager



4640 Pecos Street | Unit C | Denver, Colorado 80211  
303.433.1322 Phone 303.265.9645 Fax

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December 07, 2009

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Noble Energy, Inc. – Rifle  
800 Airport Road, Suite 3  
Rifle CO 81650

Brandon Danforth  
Project Number: [none]  
Project: 260 Cuttings

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Attached are the analytical results for 260 Cuttings received by Origins Laboratory, Inc. 10/5/2009 12:30:00PM. Please let us know if you have any questions, or if we can help with anything at all.

Laboratory Manager  
Noelle E Doyle

The analytical results in the following report were analyzed under the guidelines of EPA Methods specified in SW-846. The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. This laboratory report is intended solely for the above addressee and it is only to be used and or reproduced in its entirety.

4640 Pecos Street | Unit C  
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303.433.1322 | Laboratory  
303.265.9645 | Fax



Noble Energy, Inc. – Rifle  
800 Airport Road, Suite 3  
Rifle CO 81650

Brandon Danforth  
Project Number: [none]  
Project: 260 Cuttings

**CROSS REFERENCE REPORT**

Sample ID	Laboratory ID	Matrix	Sampled	Date Received
260-1	X910020-01	Soil	10/2/2009 8:30:00AM	10/05/2009 12:30
260-BG	X910020-02	Soil	10/2/2009 9:15:00AM	10/05/2009 12:30

Origins Laboratory, Inc.

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Noelle E Doyle, Laboratory Manager





Noble Energy, Inc. – Rifle  
 800 Airport Road, Suite 3  
 Rifle CO 81650

Brandon Danforth  
 Project Number: [none]  
 Project: 260 Cuttings

**260-BG**  
**X910020-02 (Soil)**

Analyte	Result	MDL	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
			Limit							

**GENAPURE**

**Conductivity by E120.1**

Conductivity	<b>1340</b>	10	20	US/CM	10	776112	10/07/2009	10/07/2009
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**Metals by SW 6010B**

Arsenic	<b>4.01</b>	0.561	1.02	MG/KG	1	778185	10/20/2009	10/21/2009
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**Metals by SW7196**

Chromium, Hexavalent	ND	0.2	0.4	MG/KG	1	777884	10/20/2009	10/20/2009
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**Percent Moisture by D2216**

Percent Moisture	<b>2.01</b>	1	1	%	1	776054	10/07/2009	10/07/2009
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**pH by SW9045C**

pH	<b>8.25</b>	0.001		SU	1	777825	10/19/2009	10/19/2009
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**Sodium Absorption Ration by S29B08**

Sodium absorption ratio	<b>0.03</b>	0.001			1	778186	10/21/2009	10/21/2009
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Origins Laboratory, Inc.

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Noble Energy, Inc. – Rifle  
800 Airport Road, Suite 3  
Rifle CO 81650

Brandon Danforth  
Project Number: [none]  
Project: 260 Cuttings

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### Notes and Definitions

- V Indicates that the analyte was detected in both the sample and the associated method blank.
- J Sample result was found between MDL and RL
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference

Origins Laboratory, Inc.

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