Remediation # 5350

FREMONT ENVIRONMENTAL INC.

January 17, 2011

Mr. Marty Faraguna
Noble Energy Inc.
804 Grand Ave
Platteville, CO 80651

Subject: **Ground Water Monitoring Report**
Romero Angelina 1,2 SW ¼ NW ¼ Sec. 3 T4N R65W
API # 05-123-12728
La Salle, Colorado
Fremont Project No. C010-009

Dear Mr. Faraguna:

Enclosed please find a copy of the above referenced Ground Water Monitoring Report for the Romero Angelina site in La Salle, Colorado. The enclosed report describes monitoring and sampling efforts to assess ground water quality at the site. We anticipate that this report is the second of four quarterly sampling events that indicate ground water concentrations are below the COGCC limits. Please contact me at (303) 956-8714 if you require any additional information.

Fremont appreciates the opportunity to provide this service.

Sincerely,
FREMONT ENVIRONMENTAL INC.

Paul V. Henehan, P.E.
Senior Consultant

Enclosure

12021 PENNSYLVANIA STREET, SUITE 205, THORNTON, CO 80241
(303) 956-8714 (DIRECT), (303) 920-3520 (FAX)

GROUND WATER MONITORING REPORT

NOBLE ENERGY INC.

ROMERO ANGELINA 1,2

LA SALLE, COLORADO

FREMONT PROJECT NO. C010-009

Prepared by:

Fremont Environmental Inc.
12021 Pennsylvania Street, Suite 205
Thornton, CO 80241
(303) 956-8714

January 17, 2011

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GROUND WATER MONITORING REPORT

NOBLE ENERGY INC.

ROMERO ANGELINA 1,2

LA SALLE, COLORADO

FREMONT PROJECT NO. C010-009

1.0 INTRODUCTION

The purpose of this document is to present ground water quality data collected subsequent to remediation efforts at the Romero Angelina 1,2 site in La Salle, Colorado Soil contamination was identified at this facility and remediation was accomplished by extensive excavation of contaminated soil in October 2010. Prior to the excavation work, a number of soil borings and monitoring wells were installed to delineate the magnitude and extent of subsurface contamination; three of the monitoring wells were selected for ongoing compliance monitoring.

2.0 BACKGROUND INFORMATION

2.1 Site Location

The Romero Angelina 1,2 site is located approximately 1 ½ miles east of La Salle, Colorado in Weld County as shown on Figure 1. The site is located in a rural and agricultural area east of County Road 43 and south of County Road 48. The location is further described as the SW ¼ of the NW ¼ of Section 3, Township 4N, Range 65W.

2.2 Site History

The site is a natural gas production and oil storage facility for the Romero Angelina 1,2 wells. Historical soil contamination was observed during reconfiguration of the tanks and piping at this facility. This historical contamination may be attributed to releases from the concrete water pit or flow lines over the life of the facility. Ground water in the area is present at approximately three feet below the ground surface.

3.0 GROUND WATER MONITORING ACTIVITIES

3.1 Ground Water Level Measurements

Ground water levels were measured in the three monitoring wells on December 27, 2010 in accordance with the Sampling Plan included in Appendix A. The data are summarized in Table 1. Water table contours inferred from the December 27, 2010 data are illustrated on Figure 2. Based on these data, ground water is inferred to flow to the north-northeast. The water table gradient was calculated at approximately 0.003 feet per foot (ft/ft) for the December 2010 data.

3.2 Ground Water Sampling and Analysis

Ground water samples were collected from the three monitoring wells on December 27, 2010. Samples were submitted to Origins Laboratory, Inc. in Denver, Colorado for analyses of benzene, toluene, ethylbenzene (BTEX) by EPA Method 8260B. The ground water chemistry is illustrated on Figure 3. The laboratory data indicated that all the BTEX constituents were below their respective laboratory detection limits.

The ground water analytical data are summarized in Table 1. A copy of the laboratory reports, quality control data, and chain-of-custody documentation are presented in Appendix B.

4.0 DISCUSSION

Remediation was accomplished at the Romero Angelina 1,2 site by extensive excavation of contaminated soil in October 2010. Three monitoring wells (MW-3, MW-7 and MW-8) were utilized at the site to monitor ground water quality. Ground water samples were collected from these monitoring wells in December 2010; the BTEX concentrations were below the Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 levels in all of the samples.

Noble will continue to sample the ground water quarterly to confirm that the BTEX levels remain below the COGCC requirements. The December 2010 sampling event represents the second quarterly monitoring event. After four consecutive quarters of COGCC compliant BTEX concentrations, Noble will request closure of this site.

5.0 REMARKS

The discussion and conclusions contained in this report represent our professional opinions. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

This report was prepared by **FREMONT ENVIRONMENTAL INC.**

1/17/11

_____ Date_____

Wayne Austin

Construction Supervisor

Reviewed by:

1/17/11

_____ Date_____

Paul V. Henehan, P.E.

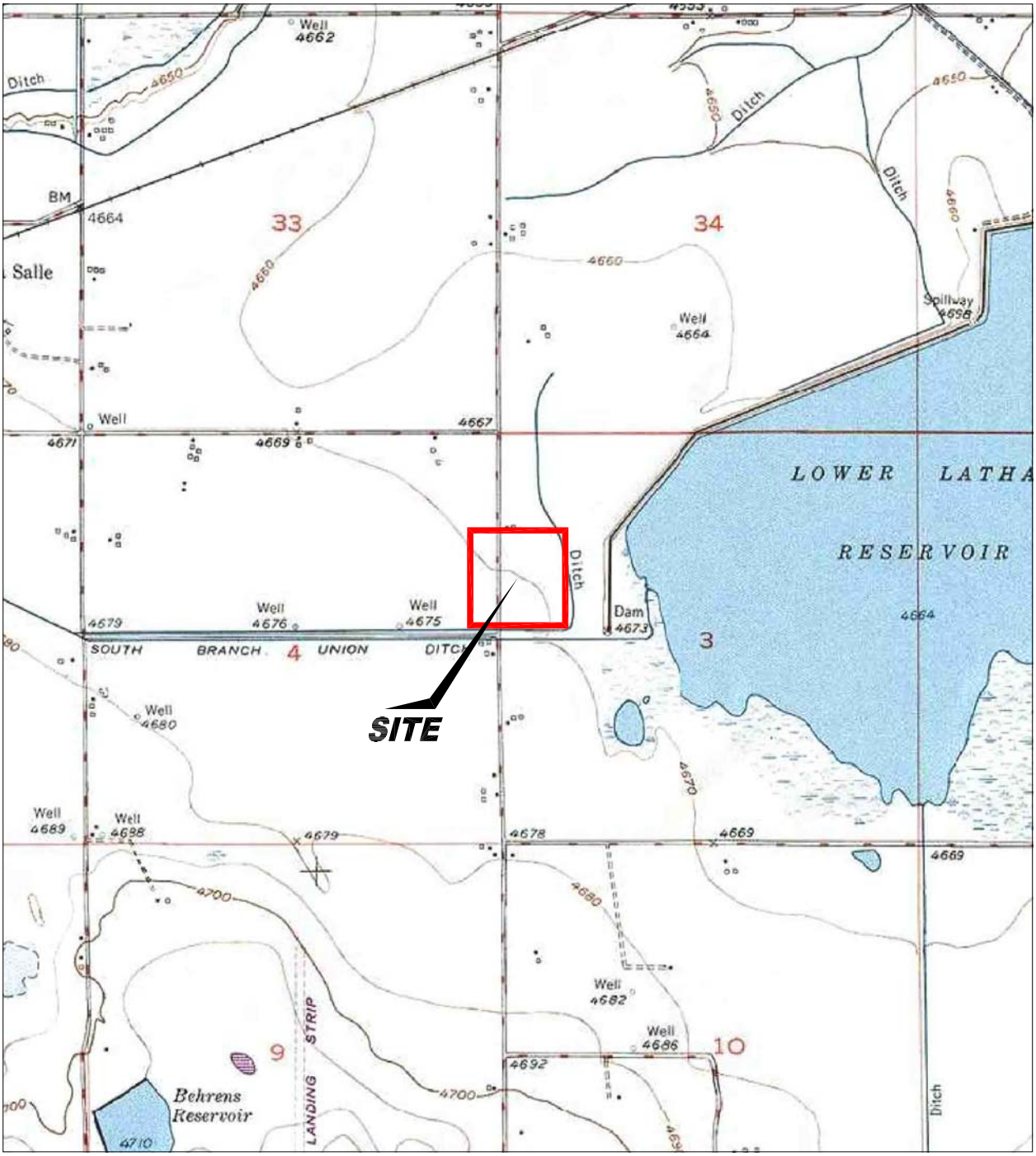
Senior Consultant

TABLES

TABLE 1
SUMMARY OF GROUND WATER ELEVATION DATA AND CHEMISTRY DATA
NOBLE ENERGY INC.
ROMERO ANGELINO 1,2, LA SALLE, COLORADO
FREMONT PROJECT NO. C010-009

SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	XYLENES (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-3	9/1/2010	<1.0	<1.0	<1.0	<2.0	100.00	3.62	96.38	0
	12/27/2010	<1.0	<1.0	<1.0	<1.0		4.96	95.04	0
MW-7	9/1/2010	<1.0	<1.0	<1.0	<2.0	97.18	1.71	95.47	0
	12/27/2010	<1.0	<1.0	<1.0	<1.0		2.79	94.39	0
MW-8	9/1/2010	<1.0	<1.0	<1.0	<2.0	97.00	1.58	95.42	0
	12/27/2010	<1.0	<1.0	<1.0	<1.0		2.60	94.40	0

FIGURES



N

Scale (miles)

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

0 1000 2000 3000 4000 5000

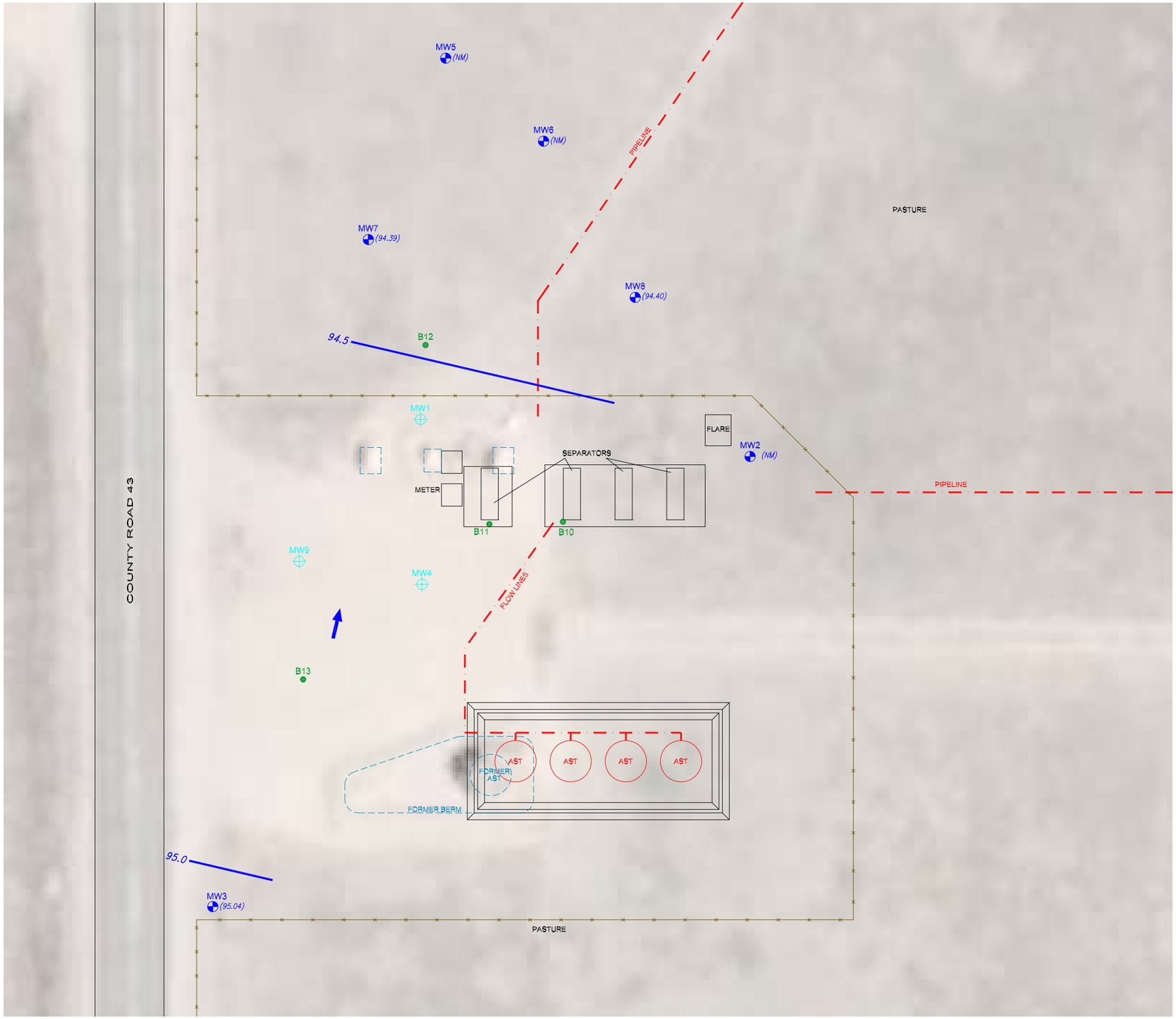
Scale (feet)

USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

Noble Energy
Romero Angelino 1,2
La Salle, Colorado

Project No.	Prepared by	Drawn by	
C010-009		JMA	FREMONT ENVIRONMENTAL
Date	Reviewed by	Filename	
9/15/10		10009T	



LEGEND

- MONITORING WELL
- DESTROYED MONITORING WELL
- SOIL BORING
- FENCE LINE
- PIPELINE
- ABOVE GROUND STORAGE TANK
- FORMER — FORMER FACILITY
- (95.42) — GROUND WATER ELEVATION (ft above arbitrary datum)
- NM — NOT MEASURED
- 95.4 — WATER TABLE CONTOUR (contour interval 2 feet)
- GROUND WATER FLOW DIRECTION

N

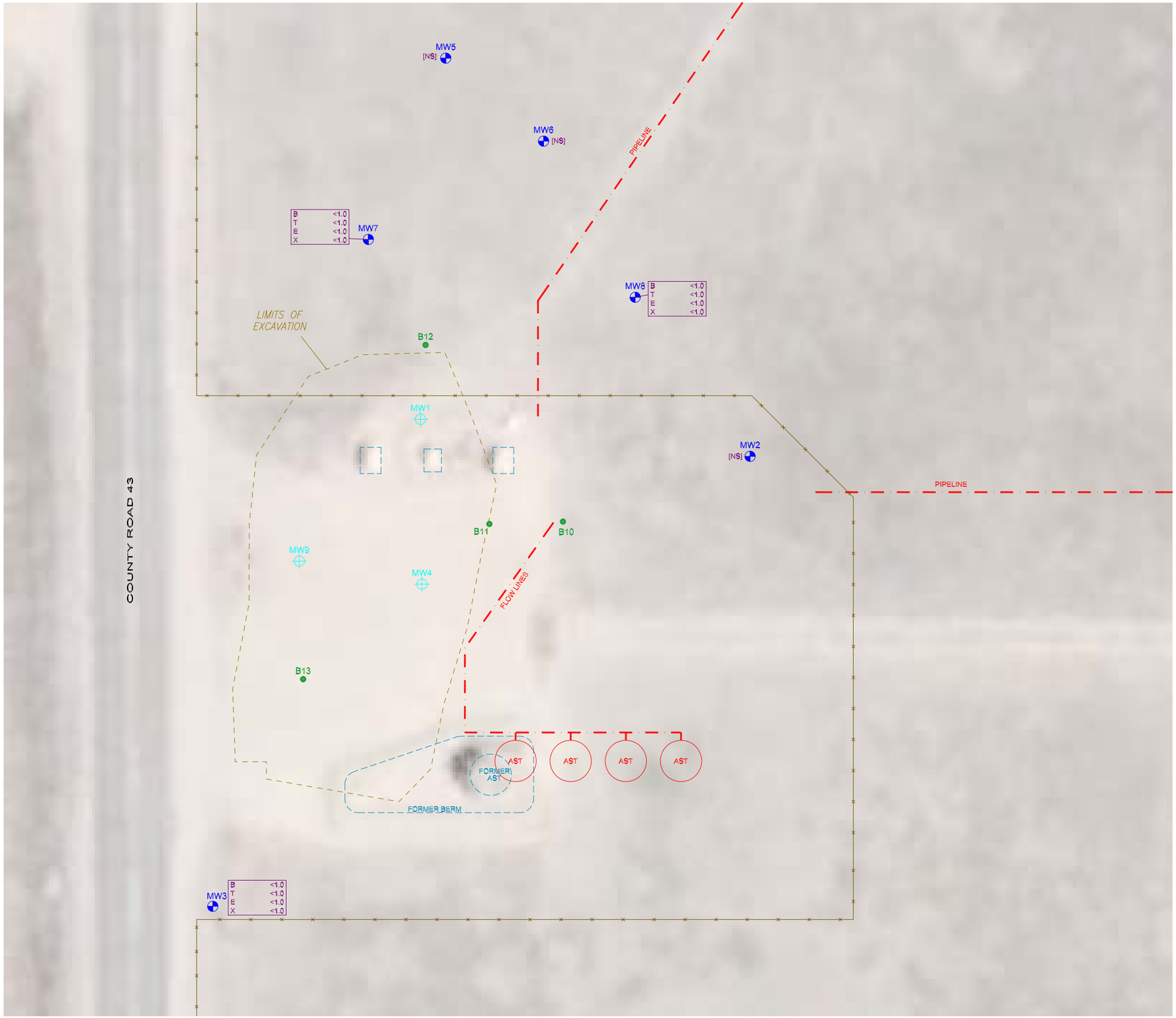
0 10 20 30
Scale (feet)

Figure 2
INFERRED GROUNDWATER CONTOUR
DECEMBER 27, 2010

Noble Energy
Romero Angelino 1,2
La Salle, Colorado

Project No.	Prepared by	Drawn by
C010-009		JMA
Date	Reviewed by	Filename
1/20/11		10009Q

FREMONT ENVIRONMENTAL



LEGEND

- MONITORING WELL
- DESTROYED MONITORING WELL
- SOIL BORING
- FENCE LINE
- PIPELINE
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY

B	<1.0 BENZENE (ug/L)
T	<1.0 TOLUENE (ug/L)
E	<1.0 ETHYLBENZENE (ug/L)
X	<1.0 TOTAL XYLENES (ug/L)

NS NOT SAMPLED

N

0 10 20 30
Scale (feet)

Figure 3
GROUND WATER CHEMISTRY MAP
DECEMBER 27, 2010

Noble Energy
Romero Angelino 1,2
La Salle, Colorado

Project No. C010-009	Prepared by	Drawn by JMA	FREMONT ENVIRONMENTAL
Date 1/20/11	Reviewed by	Filename 10009Q	

APPENDIX A

SAMPLING PLAN

SAMPLING METHODS AND PROCEDURES

Water Level Measurements

All ground water level measurements will be obtained using an electric measuring device, which indicates when a probe is in contact with ground water. Measurements will be obtained by lowering the device into the well until the water surface had been encountered, and by measuring the distance from the top of the inside riser pipe to the probe. All of the measurements will be recorded to the nearest 0.01 ft. To minimize cross-contamination, the water level indicator will be decontaminated with isopropyl alcohol and distilled water between each well.

Monitoring Well Sampling

All monitoring wells were sampled from the "cleanest" to the "most contaminated" according to the protocols listed below.

Field Protocol

Step 1	Measure water level in each well.
Step 2	Purge each monitoring well by evacuating a minimum of three well bore volumes using a disposable polyethylene bailer.
Step 3	Collect water samples using a disposable polyethylene bailer.
Step 4	Cool samples to approximately 4°C for transportation.
Step 5	Store water samples and transport to a specific laboratory, following all documentation and chain-of-custody procedures.

Upon completion of ground water sampling, a chain-of-custody log will be completed. Chain-of-custody records include the following information: project, project number, shipped by, shipped to, suspected hazard, sampling point, location, field identification number, date collected, sample type, number of containers, analysis required, and sampler's signature.

The chain-of-custody records will be shipped with the samples to the laboratory. Upon arrival at the laboratory the samples will be checked in and signed by the appropriate laboratory personnel. Laboratory identification numbers will be noted on the chain-of-custody record. Upon completion of the laboratory analysis, the completed chain-of-custody record will be returned to the project manager.

Analytical Methods

The following list identifies the various chemical constituents and analytical methods which will be used for their quantification.

Chemical Parameter	Method
Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX)	EPA Method – 8260B
Total Petroleum Hydrocarbons - Gasoline Range Organics (TPH-GRO)	EPA Method – 8015 Modified
Total Petroleum Hydrocarbons - Diesel Range Organics (TPH-DRO)	EPA Method – 8015 Modified

APPENDIX B

LABORATORY DOCUMENTATION

ORIGINS LABORATORY, INC

January 06, 2011

Noble Energy Inc.

Paul Henehan

804 Grand Avenue

Platteville CO 80651

Project Name - Romero Angelino 1,2 **Project Number C010-009 - Freemont I**

Attached are you analytical results for Romero Angelino 1,2 received by Origins Laboratory, Inc. 12/27/2010 10:55:00AM. This project is associated with Origins project number X012217-01.

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

ORIGINS LABORATORY, INC

Noble Energy Inc.
804 Grand Avenue
Platteville CO 80651

Paul Henehan
Project Number: C010-009 - Freemont En
Project: Romero Angelino 1,2

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-3	X012217-01	Water	December 27, 2010 8:00	12/27/2010 10:55
MW-8	X012217-02	Water	December 27, 2010 8:30	12/27/2010 10:55
MW-7	X012217-03	Water	December 27, 2010 9:30	12/27/2010 10:55

Origins Laboratory, Inc.

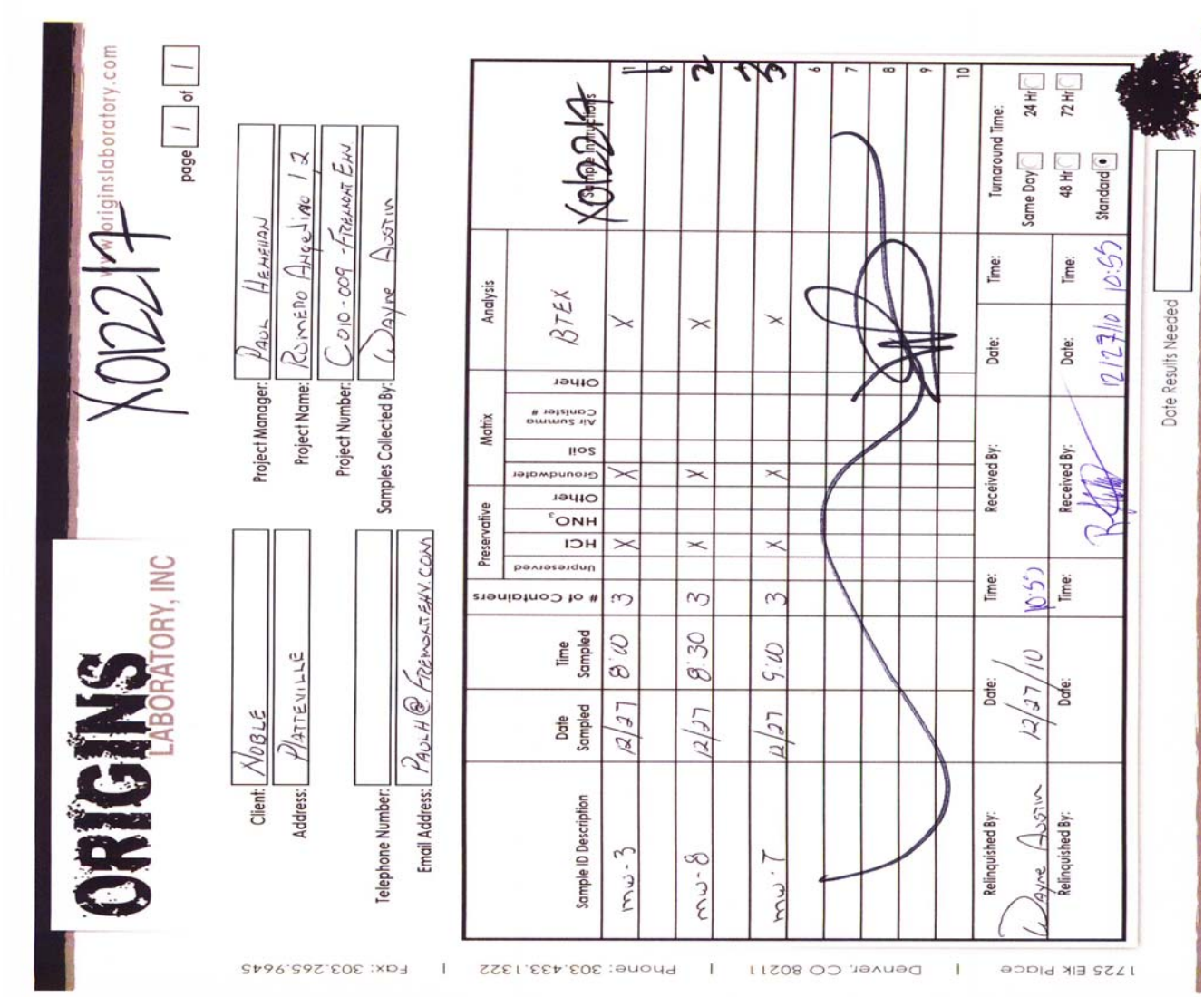
Noelle E Doyle, Laboratory Manager

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.

ORIGINS LABORATORY, INC

Noble Energy Inc.
804 Grand Avenue
Platteville CO 80651

Paul Henehan
Project Number: C010-009 - Freemont En
Project: Romero Angelino 1,2



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.
804 Grand Avenue
Platteville CO 80651

Paul Henehan
Project Number: C010-009 - Freemont En
Project: Romero Angelino 1,2

MW-3
12/27/2010 8:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
Origins Laboratory, Inc.								
X012217-01 (Water)								
BTEX by EPA 8260B								
Benzene	ND	1.00	ug/L	1	0L30003	12/30/2010	01/03/2011	
Toluene	ND	1.00	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	
Xylenes, total	ND	1.00	"	"	"	"	"	
Surrogate: 1.2-Dichloroethane-d4	*100 %*	*73.5-130*			"	"	*01/01/2011*	
Surrogate: Toluene-d8	*95.3 %*	*79.3-113*			"	"	"	
Surrogate: 4-Bromofluorobenzene	*94.6 %*	*81.5-117*			"	"	"	

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

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Noble Energy Inc.
804 Grand Avenue
Platteville CO 80651

Paul Henehan
Project Number: C010-009 - Freemont En
Project: Romero Angelino 1,2

MW-8
12/27/2010 8:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
Origins Laboratory, Inc.								
X012217-02 (Water)								
BTEX by EPA 8260B								
Benzene	ND	1.00	ug/L	1	0L30003	12/30/2010	01/01/2011	
Toluene	ND	1.00	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	
Xylenes, total	ND	1.00	"	"	"	"	"	
Surrogate: 1.2-Dichloroethane-d4	*100 %*	*73.5-130*			"	"	"	
Surrogate: Toluene-d8	*95.4 %*	*79.3-113*			"	"	"	
Surrogate: 4-Bromofluorobenzene	*95.0 %*	*81.5-117*			"	"	"	

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

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Noble Energy Inc.
804 Grand Avenue
Platteville CO 80651

Paul Henehan
Project Number: C010-009 - Freemont En
Project: Romero Angelino 1,2

MW-7
12/27/2010 9:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
Origins Laboratory, Inc.								
X012217-03 (Water)								
BTEX by EPA 8260B								
Benzene	ND	1.00	ug/L	1	0L30003	12/30/2010	01/01/2011	
Toluene	ND	1.00	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	
Xylenes, total	ND	1.00	"	"	"	"	"	
Surrogate: 1.2-Dichloroethane-d4	*100 %*	*73.5-130*			"	"	"	
Surrogate: Toluene-d8	*96.2 %*	*79.3-113*			"	"	"	
Surrogate: 4-Bromofluorobenzene	*94.1 %*	*81.5-117*			"	"	"	

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

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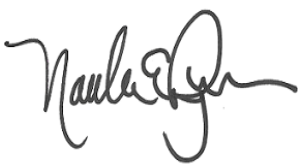
Noble Energy Inc.
804 Grand Avenue
Platteville CO 80651

Paul Henehan
Project Number: C010-009 - Freemont En
Project: Romero Angelino 1,2

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
Batch 0L30003 - EPA 5030B										
Blank (0L30003-BLK1)						Prepared: 12/30/2010 Analyzed: 12/31/2010				
Benzene	ND	1.00	ug/L							
Toluene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
o-Xylene	ND	1.00	"							
Surrogate: 1,2-Dichloroethane-d4	*64.2*		"	*62.5*		*103*	*73.5-130*			
Surrogate: Toluene-d8	*61.1*		"	*62.5*		*97.7*	*79.3-113*			
Surrogate: 4-Bromofluorobenzene	*58.4*		"	*62.5*		*93.5*	*81.5-117*			
LCS (0L30003-BS1)						Prepared: 12/30/2010 Analyzed: 12/31/2010				
Benzene	58.5	1.00	ug/L	50.0		117	77.3-128			
Toluene	57.8	1.00	"	50.0		116	81.7-118			
Surrogate: 1,2-Dichloroethane-d4	*64.7*		"	*62.5*		*103*	*73.5-130*			
Surrogate: Toluene-d8	*62.2*		"	*62.5*		*99.5*	*79.3-113*			
Surrogate: 4-Bromofluorobenzene	*58.1*		"	*62.5*		*92.9*	*81.5-117*			
Matrix Spike (0L30003-MS1)		Source: X012198-02				Prepared: 12/30/2010 Analyzed: 12/31/2010				
Benzene	58.2	1.00	ug/L	50.0	ND	116	74.5-132			
Toluene	56.2	1.00	"	50.0	ND	112	74.2-116			
Surrogate: 1,2-Dichloroethane-d4	*65.0*		"	*62.5*		*104*	*73.5-130*			
Surrogate: Toluene-d8	*61.2*		"	*62.5*		*98.0*	*79.3-113*			
Surrogate: 4-Bromofluorobenzene	*58.4*		"	*62.5*		*93.4*	*81.5-117*			
Matrix Spike Dup (0L30003-MSD1)		Source: X012198-02				Prepared: 12/30/2010 Analyzed: 12/31/2010				
Benzene	57.9	1.00	ug/L	50.0	ND	116	74.5-132	0.534	13.1	
Toluene	55.8	1.00	"	50.0	ND	112	74.2-116	0.643	21.2	
Surrogate: 1,2-Dichloroethane-d4	*65.2*		"	*62.5*		*104*	*73.5-130*			
Surrogate: Toluene-d8	*60.7*		"	*62.5*		*97.2*	*79.3-113*			

Origins Laboratory, Inc.



Noelle E Doyle, Laboratory Manager

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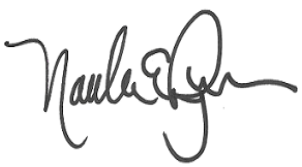
Noble Energy Inc.
804 Grand Avenue
Platteville CO 80651

Paul Henehan
Project Number: C010-009 - Freemont En
Project: Romero Angelino 1,2

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
Batch 0L30003 - EPA 5030B										
Matrix Spike Dup (0L30003-MSD1)	Source: X012198-02				Prepared: 12/30/2010 Analyzed: 12/31/2010					
Surrogate: 4-Bromofluorobenzene	*57.6*		*ug/L*	*62.5*		*92.2*	*81.5-117*			

Origins Laboratory, Inc.



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Noble Energy Inc.
804 Grand Avenue
Platteville CO 80651

Paul Henehan
Project Number: C010-009 - Freemont En
Project: Romero Angelino 1,2

Notes and Definitions

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

Origins Laboratory, Inc.

Noelle E Doyle, Laboratory Manager

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