

GROUNDWATER MONITORING REPORT JANUARY 2010

SCHMIDT 30-11G, 12G WELL SITE

On November 20, 2009, LT Environmental, Inc. (LTE) conducted groundwater sampling, on behalf of Noble Energy, Inc., at the Schmidt 30-11G, 12G Well Site (Site). This sampling event constitutes the third post remediation monitoring event at this Site. Site history, remediation activities, well installation, and performance monitoring have been described in preceding reports.

Groundwater level measurements were collected from the monitoring wells and are summarized in Table 1. The three monitoring wells, installed on April 14, 2009 (MW01, MW02, and MW03), were used to conduct groundwater sampling. Figure 1 illustrates the Site layout and monitoring well locations.

Depth to groundwater, ranged from 7.59 feet below top of casing (btoc) in MW01 to 7.94 feet btoc in MW02, was used to calculate well-specific purge volumes. Following purging, groundwater samples were collected and preserved on ice. Samples were submitted under strict chain of custody protocol to Origins Laboratory, Inc. of Denver, Colorado for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency Method 8260B.

Analytical results from the monitoring wells, presented in Table 1, indicate BTEX concentrations are below laboratory reporting limits and in compliance with Colorado Department of Public Health and Environment – Water Quality Control Commission Regulation 41. The laboratory analytical report is included in the Appendix.

LTE will continue to conduct quarterly groundwater monitoring events with the goal of observing four consecutive quarters of analytical results in compliance with applicable regulatory standards. The next quarterly groundwater sampling event is scheduled for February 2010.

TABLE

TABLE 1

**GROUNDWATER ANALYTICAL DATA
SCHMIDT 30-11G, 12G TANK BATTERY SITE
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.**

MONITORING		DEPTH TO				TOTAL
WELL	DATE	WATER (feet btoc)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZENE (ug/L)	XYLENES (ug/L)
MW01	4/28/2009	6.87	<1.0	<1.0	1.35	<3.0
	8/24/2009	3.18	<1.0	<1.0	<1.0	<3.0
	11/20/2009	7.59	<1.0	<1.0	<1.0	<3.0
MW02	4/28/2009	6.37	5.67	<1.0	<1.0	3.36
	8/24/2009	4.81	<1.0	<1.0	<1.0	<3.0
	11/20/2009	7.94	<1.0	<1.0	<1.0	<3.0
MW03	4/28/2009	6.23	<1.0	<1.0	<1.0	<3.0
	8/24/2009	5.21	3.55	<1.0	36.5	1.295
	11/20/2009	7.61	<1.0	<1.0	<1.0	<3.0
CDPHE WQCC Reg 41			5.0	560	700	1,400

NOTES:

btoc - below top of casing

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B

ug/L - micrograms per liter

< indicates result is less than the stated laboratory method detection limit

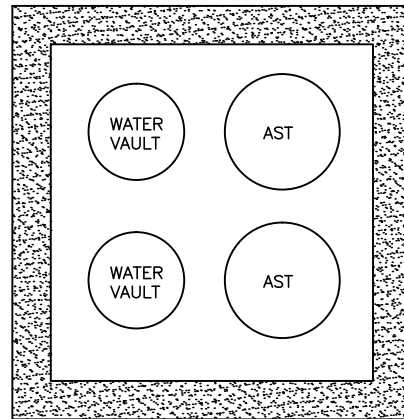
BOLD - indicates result is above the applicable standard

CDPHE WQCC Reg 41 - Colorado Department of Public Health and Environment - Water Quality Control
Commission Regulation 41 covering Basic Standards for Groundwater



FIGURE

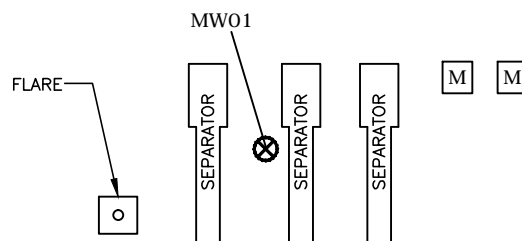
MW03



MW02



LEASE ROAD



LEGEND

MW01  MONITORING WELL LOCATION

 METER HOUSE

 BERM

 ESTIMATED GROUNDWATER FLOW DIRECTION

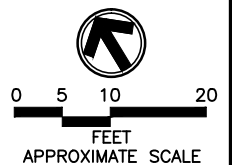


FIGURE 1
SITE MAP
SCHMIDT 30-11G, 12G
WELD COUNTY, CO
NOBLE ENERGY, INC.



APPENDIX
ANALYTICAL REPORT



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

November 29, 2009

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Dodek
Project Number: NEP0902
Project: Noble – Schmidt 30–11G, 12G

Attached are the analytical results for Noble – Schmidt 30–11G, 12G received by Origins Laboratory, Inc. 11/20/2009 4:27:00PM. Please let us know if you have any questions, or if we can help with anything at all.

A handwritten signature in black ink, appearing to read "Noelle E Doyle", written in a cursive style.

Noelle E Doyle
Laboratory Manager

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.

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Brian Dodek
Project Number: NEP0902
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12G

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Sampled	Date Received
MW01	X911088-01	Water	11/20/2009 3:00:00PM	11/20/2009 16:27
MW02	X911088-02	Water	11/20/2009 2:25:00PM	11/20/2009 16:27
MW03	X911088-03	Water	11/20/2009 2:05:00PM	11/20/2009 16:27

Origins Laboratory, Inc.

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Noelle E Doyle, Laboratory Manager

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Project Number: NEP0902
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12G

X9110588
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originslaboratory.com

Client: LT Environmental
Address: 4600 W. 60th Ave.
Arvada CO 80003
Telephone Number: 303-433-9789
E-Mail Address: b.dodek@ltenv.com

Project Manager: Brian Dodek
Project Name: Schmidt GW Sampling
Project Number: NEP0902
Samples Collected by: Devin Gartin

Sample ID - Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other -	Groundwater	Soil	Air - Summa Canister #		
MW01	11/20/09	1500	3	X				X				1
MW02	↓	1435	↓	X				X				2
MW03	↓	1405	↓	X				X				3
												4
												5
												6
												7
												8
												9
												10

Relinquished by: Devin Gartin Date: 11/20/09 Time: 1627

Relinquished by: [Signature] Date: 11/20/09 Time: 1627

Temperature Upon Receipt: [Blank]

Turn Around Time: [Blank] Same Day [Blank] 48-hr [Blank] 72-hr [X]

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

Origins Laboratory, Inc.

[Signature]

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MW01

X911088-01 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00100	mg/L	1	9K23004	11/23/2009	11/23/2009
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	ND	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	125 %	85.7-134	"	"	"
Surrogate: Toluene-d8	83.2 %	81.4-121	"	"	"
Surrogate: 4-Bromofluorobenzene	119 %	74.7-127	"	"	"

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MW02

X911088-02 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00100	mg/L	1	9K23004	11/23/2009	11/23/2009
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	ND	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	121 %	85.7–134	"	"	"
Surrogate: Toluene-d8	86.0 %	81.4–121	"	"	"
Surrogate: 4-Bromofluorobenzene	120 %	74.7–127	"	"	"

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MW03

X911088-03 (Water)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00100	mg/L	1	9K23004	11/23/2009	11/23/2009
Toluene	ND	0.00100	"	"	"	"	"
Ethylbenzene	ND	0.00100	"	"	"	"	"
o-Xylene	ND	0.00100	"	"	"	"	"
m,p-Xylene	ND	0.00200	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	124 %	85.7-134	"	"	"
Surrogate: Toluene-d8	81.7 %	81.4-121	"	"	"
Surrogate: 4-Bromofluorobenzene	119 %	74.7-127	"	"	"

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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 9K23004 – EPA 5030B

Blank (9K23004–BLK1)

Prepared: 11/23/2009 Analyzed: 11/23/2009

Benzene	ND	0.001	mg/L							
Toluene	ND	0.001	"							
Ethylbenzene	ND	0.001	"							
o-Xylene	ND	0.001	"							
m,p-Xylene	ND	0.002	"							
Surrogate: 1,2-Dichloroethane-d4	70.9		ug/L	62.5		113	85.7–134			
Surrogate: Toluene-d8	56.0		"	62.5		89.6	81.4–121			
Surrogate: 4-Bromofluorobenzene	69.6		"	62.5		111	74.7–127			

LCS (9K23004–BS1)

Prepared: 11/23/2009 Analyzed: 11/23/2009

Benzene	0.04	0.001	mg/L	0.0500		79.7	74.9–126			
Toluene	0.04	0.001	"	0.0500		81.5	73.3–128			
Surrogate: 1,2-Dichloroethane-d4	70.3		ug/L	62.5		113	85.7–134			
Surrogate: Toluene-d8	54.7		"	62.5		87.5	81.4–121			
Surrogate: 4-Bromofluorobenzene	69.5		"	62.5		111	74.7–127			

Matrix Spike (9K23004–MS1)

Source: X911088–01

Prepared: 11/23/2009 Analyzed: 11/23/2009

Benzene	0.04	0.001	mg/L	0.0500	ND	78.8	78.1–132			
Toluene	0.04	0.001	"	0.0500	ND	79.8	71.7–124			
Surrogate: 1,2-Dichloroethane-d4	74.0		ug/L	62.5		118	85.7–134			
Surrogate: Toluene-d8	54.1		"	62.5		86.6	81.4–121			
Surrogate: 4-Bromofluorobenzene	70.4		"	62.5		113	74.7–127			

Matrix Spike Dup (9K23004–MSD1)

Source: X911088–01

Prepared: 11/23/2009 Analyzed: 11/23/2009

Benzene	0.04	0.001	mg/L	0.0500	ND	77.9	78.1–132	1.10	24.8	QM-07
Toluene	0.04	0.001	"	0.0500	ND	77.0	71.7–124	3.55	25	
Surrogate: 1,2-Dichloroethane-d4	72.5		ug/L	62.5		116	85.7–134			
Surrogate: Toluene-d8	53.1		"	62.5		85.0	81.4–121			
Surrogate: 4-Bromofluorobenzene	69.6		"	62.5		111	74.7–127			

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Notes and Definitions

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

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