September 8, 2016

Ms. Sarah McGrath
New Mexico Environment Department
Petroleum Storage Tank Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505

Re: First Semiannual Groundwater Monitoring Report
Leonard's Conoco, 603 Parker Avenue, Santa Rosa, New Mexico
Facility #: 29084, Release ID #: 755, WPID #: 3873

Dear Ms. McGrath:

Enclosed is the report summarizing groundwater monitoring conducted by Daniel B. Stephens & Associates, Inc. (DBS&A) at the above-referenced site on July 29, 2016. All activities were completed in accordance with work plan identification number (WPID #) 3873, approved by the New Mexico Environment Department Petroleum Storage Tank Bureau on June 23, 2016. This is the first of two semiannual monitoring events to be completed under the approved work plan.

DBS&A will be invoicing the full approved amount of $4,437.37 (including 7.3125% NMGRT) for Deliverable ID 3873-1. Please do not hesitate to call me at (505) 353-9130 if you have any questions or require additional information.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

Michael D. McVey
Senior Hydrogeologist

MDM/ed

Daniel B. Stephens & Associates, Inc.
6020 Academy NE, Suite 100 505-822-9400
Albuquerque, NM 87109 FAX 505-822-8877

COVER PAGE
FORM 1216
FIRST SEMIANNUAL GROUNDWATER MONITORING REPORT

Please include the following information:

1. **Site name:** Leonard's Conoco

2. **Responsible party:** State Lead

3. **Responsible party mailing address** (list contact person if different):

   Ms. Sarah McGrath, NMED PSTB District 2

   2905 Rodeo Park Drive East, Building 1

   Santa Fe, New Mexico 87505

4. **Facility number:** 29084 (Release ID #: 755)

5. **Address/legal description:**

   603 Parker Avenue

   Santa Rosa, New Mexico 88435

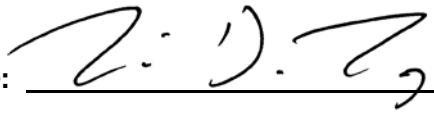
6. **Author/consulting company:** Daniel B. Stephens & Associates, Inc.

7. **Date of report:** September 8, 2016

8. **Date of confirmation of release or date USTB was notified of the release:** June 1991

STATEMENT OF FAMILIARITY

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete.

Signature: 

Name: Michael D. McVey

Affiliation: Daniel B. Stephens & Associates, Inc.

Title: Senior Hydrogeologist

Date September 8, 2016

I. INTRODUCTION

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this groundwater monitoring report in accordance with the New Mexico Petroleum Storage Tank Regulations and work plan identification number (WPID #) 3873. The former Leonard's Conoco (the site) is located at 603 Parker Avenue in Santa Rosa, New Mexico (Figure 1). The site is currently occupied by the Guadalupe County Magistrate Court Division 1.

A confirmed petroleum release was documented during removal of three 4,000-gallon underground storage tanks (USTs) and one 560-gallon waste oil UST in June 1991. Monteverde, Inc. performed a minimum site assessment (MSA) in 1995 during which four monitor wells (MW-1, MW-2, MW-3, and MW-4) were installed. Innovative Explorations (INEX) performed groundwater monitoring at the site from 1997 through 2001. In 2000, the former Leonard's Conoco building was demolished and the current building was constructed. Monitor well MW-2 was destroyed during construction, and a replacement well, MW-2A, was installed by INEX.

In June 2009, Tecumseh Professional Associates, Inc. (TPA) performed a groundwater monitoring event at the site. TPA located monitor wells MW-2A and MW-3, but could not locate monitor wells MW-1 and MW-4. Of the two wells located, only MW-3 was sampled because well MW-2A was dry (TPA, 2009).

In October 2013, Haller & Associates, Inc. (HAI) performed groundwater monitoring at the site. HAI located monitor well MW-1, but was unsuccessful in locating MW-4 with a metal detector. HAI indicated that monitor well MW-4 appeared to have been destroyed.

HAI plugged and abandoned monitor well MW-1 and performed groundwater monitoring at the site in March 2014. Monitor wells MW-1A, MW-2A, and MW-3 were located and gauged. MW-2A was found to be dry. Samples were collected from MW-1A and MW-3. Results showed benzene (250 µg/L) and total naphthalenes (84 µg/L) to be present at concentrations above the New Mexico Water Quality Control Commission (NMWQCC) standards in MW-1A; no contaminants of concern (COCs) were detected at concentrations above the laboratory reporting limits in the sample collected from MW-3 (HAI, 2014).

On July 24, 2015, DBS&A submitted a work plan for one year of semiannual groundwater monitoring to the New Mexico Environment (NMED) Petroleum Storage Tank Bureau (PSTB) under a new state lead contract (DBS&A, 2015). The work plan was approved on June 23, 2016 under WPID #3873 (NMED, 2016).

This report documents first semiannual groundwater monitoring conducted at the site by DBS&A on July 29, 2016.

A. Scope of Work

The scope of work included semiannual groundwater monitoring consisting of gauging fluid levels in all accessible site monitor wells, including MW-1A, MW-2A, and MW-3, and collecting groundwater samples from the wells for laboratory analysis. Groundwater samples were analyzed for volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, total xylenes, methyl tertiary-butyl ether (MTBE), 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), and total naphthalenes (naphthalene plus methylnaphthalenes) using EPA method 8260B (full list).

I. INTRODUCTION (Continued)

B. Monitoring Highlights

The principal accomplishments of this reporting period include the following:

- Gauged fluid levels in monitor wells MW-1A, MW-2A, and MW-3 — July 29, 2016
- Collected groundwater samples from monitor wells MW-1A, MW-2A, and MW-3 for laboratory analysis — July 29, 2016
- Prepared Form 1216 semiannual monitoring report — September 2016

All monitoring activities were completed in accordance with the approved work plan.

II. ACTIVITIES PERFORMED DURING THIS MONITORING EVENT

A. Remediation System

A remediation system has not been installed or operated at the site.

B. System Operation

A remediation system has not been installed or operated at the site.

C. Monitoring Activities

Well Inventory and Inspection

On July 29, 2016, DBS&A personnel located monitor wells MW-1A, MW-2A, and MW-3. The locations of the site monitor wells are shown on Figure 2. Attempts to locate monitor well MW-4 with a metal detector were unsuccessful. The concrete pads, well vaults, and well casings for MW-1A and MW-2A were found to be intact and in good shape. The total depth (TD) tagged for MW-1A was 18.69 feet below the top of casing (btoc), slightly shallower than the TD of 19.70 feet btoc reported by HAI (2014). The TD of MW-2A could not be tagged due to an intrusion of roots into the well casing; however, DBS&A was able to push the roots down with a bailer to a depth of 14.32 feet btoc where water was encountered. HAI reported the TD of the well to be 13.70 feet btoc (HAI, 2014), but it is believed that this was an error as DBS&A was able to penetrate the roots to a greater depth.

The concrete pad for MW-3 was found to be broken. The vault, and possibly the well casing, were lifted up approximately 1 foot above grade. Photos showing the damage to the MW-3 surface completion are provided in Appendix 1. Employees working in the Magistrate Court building were not aware of what caused the damage to the well. Although the surface completion is destroyed, a total depth of 28.62 feet btoc was tagged by DBS&A, which is generally consistent with the TD of 28.80 reported by HAI in March 2014 prior to the damage (HAI, 2014).

Groundwater Monitoring

On July 29, 2016, DBS&A personnel measured the depth to water in wells MW-1A, MW-2A, and MW-3 using an electronic interface probe. Nonaqueous-phase liquid (NAPL) was not detected in any of the wells. Table 1 summarizes water level measurements and potentiometric surface elevations from this and previous monitoring events conducted at the site. The most recent water level data were used to prepare a potentiometric surface elevation map for the site, which is included as Figure 3.

Groundwater samples were collected on July 29, 2016 after purging monitor wells MW-1A MW-2A, and MW-3 in accordance with the work plan. DBS&A personnel followed standard operating procedures and the NMED Underground Storage Tank Bureau Guidelines for Corrective Action during the collection of groundwater samples. The sampling protocol is outlined in Appendix 2. Dissolved oxygen (DO), oxidation-reduction potential (ORP), pH, specific conductivity, and temperature were measured in the field during purging using a YSI 556 Multiprobe System (MPS) meter and recorded in the field notes (Appendix 3).

II. ACTIVITIES PERFORMED DURING THIS MONITORING EVENT (Continued)

Groundwater samples were analyzed for the constituents specified in the scope of work. All laboratory analyses were performed by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. Analytical organic chemistry data from this and previous monitoring events are summarized in Table 2. Groundwater samples were not analyzed for inorganics during this monitoring event in accordance with the work plan. The laboratory report, including chain of custody documentation, is provided in Appendix 4. Figure 4 shows the distribution of dissolved-phase contaminants in groundwater for the wells sampled on July 29, 2016.

D. System Performance and Effectiveness

A remediation system has not been installed or operated at the site.

E. Containment of Release

Samples from monitor well MW-1A contained benzene and total naphthalene concentrations above the NMWQCC standards. No COCs were detected above laboratory reporting limits in samples collected from monitor wells MW-2A and MW-3 during this monitoring event. The dissolved-phase plume remains undefined downgradient of MW-1A.

III. SUMMARY AND CONCLUSIONS

A. Trends or Changes in Site Conditions

Since the last monitoring event in March 2014, the water level in monitor well MW-1A decreased 0.2 foot (Table 1). The water level in monitor well MW-3 also decreased, but by how much cannot be determined because of the damage to the well. Monitor well MW-2A was reported by HAI to be dry at 13.70 feet btoc during the last monitoring event. A graph showing changes in groundwater elevations in site monitor wells over time is provided in Appendix 5. The direction of groundwater flow is to the west-northwest at a gradient of approximately 0.01 foot per foot (ft/ft) (Figure 3). Even with the damage to the well, the flow direction is generally consistent with the northwest flow direction reported by HAI in March 2014 prior to the damage (HAI, 2014).

Table 2 provides a summary of analytical organic chemistry data from this and previous groundwater monitoring events conducted at the site. Graphs showing changes in select COC concentrations in site monitor wells over time are provided in Appendix 5. The following changes were noted since the last monitoring event in March 2014:

- MW-1A: The benzene concentration decreased from 250 to 100 micrograms per liter (µg/L), and the total naphthalenes concentration decreased from 84 to 37.1 µg/L; both concentrations remain above their respective NMWQCC standards.

- MW-2A: This well was reported to be dry during the last monitoring event and was not sampled. During the current monitoring event, concentrations of all COCs remained below laboratory reporting limits. No COCs have been detected at concentrations above laboratory reporting limits since the well was first sampled in December 2000 (four monitoring events).

- MW-3: Concentrations of all COCs remained below laboratory reporting limits. No COCs have been detected at concentrations above NMWQCC standards since the well was first sampled in March 1995 (nine monitoring events).

B. Assessment of Remediation System

A remediation system has not been installed or operated at the site.

C. Recommendations

Benzene concentrations continue to fluctuate in monitor well MW-1A. Although the concentrations have decreased from the high recorded in March 1995, they have not changed significantly since November 1997, fluctuating between 57 µg/L and 250 µg/L. The total naphthalenes concentration data is limited to three monitoring events: October 2013, March 2014, and July 2016. The concentration decreased by about half during this monitoring event compared to the two previous monitoring events, and may be showing a decreasing trend; however, more sampling is required to confirm a trend.

It is recommended that groundwater monitoring continue at the site under the current approved work plan. It is also recommended that the surface completion for MW-3 be replaced as soon as possible. The bentonite seal has been compromised, which could provide a potential direct

III. SUMMARY AND CONCLUSIONS (Continued)

pathway for contaminants from the surface to groundwater. Once the surface completion is replaced, a new survey should be performed to determine the top of casing elevation.

REFERENCES

Daniel B. Stephens & Associates, Inc. (DBS&A). 2015. Work plan for semiannual groundwater monitoring, Leonard's Conoco, 603 Parker Avenue, Santa Rosa, New Mexico. Submitted to the New Mexico Environment Department Petroleum Storage Tank Bureau, Santa Fe, New Mexico. July 24, 2015.

Haller & Associates, Inc. (HAI). 2014. *Groundwater monitoring and monitor well abandonment report, Leonard's Conoco, Santa Rosa, New Mexico*. Submitted to the New Mexico Environment Department Petroleum Storage Tank Bureau. April 1, 2014.

New Mexico Environment Department (NMED). 2016. Letter from Lorena Goerger to Michael McVey, Daniel B. Stephens & Associates, Inc., regarding continued Phase 1 fixed-price work plan approval for Leonard's Conoco, 603 Parker Ave., Santa Rosa, New Mexico. June 23, 2016.

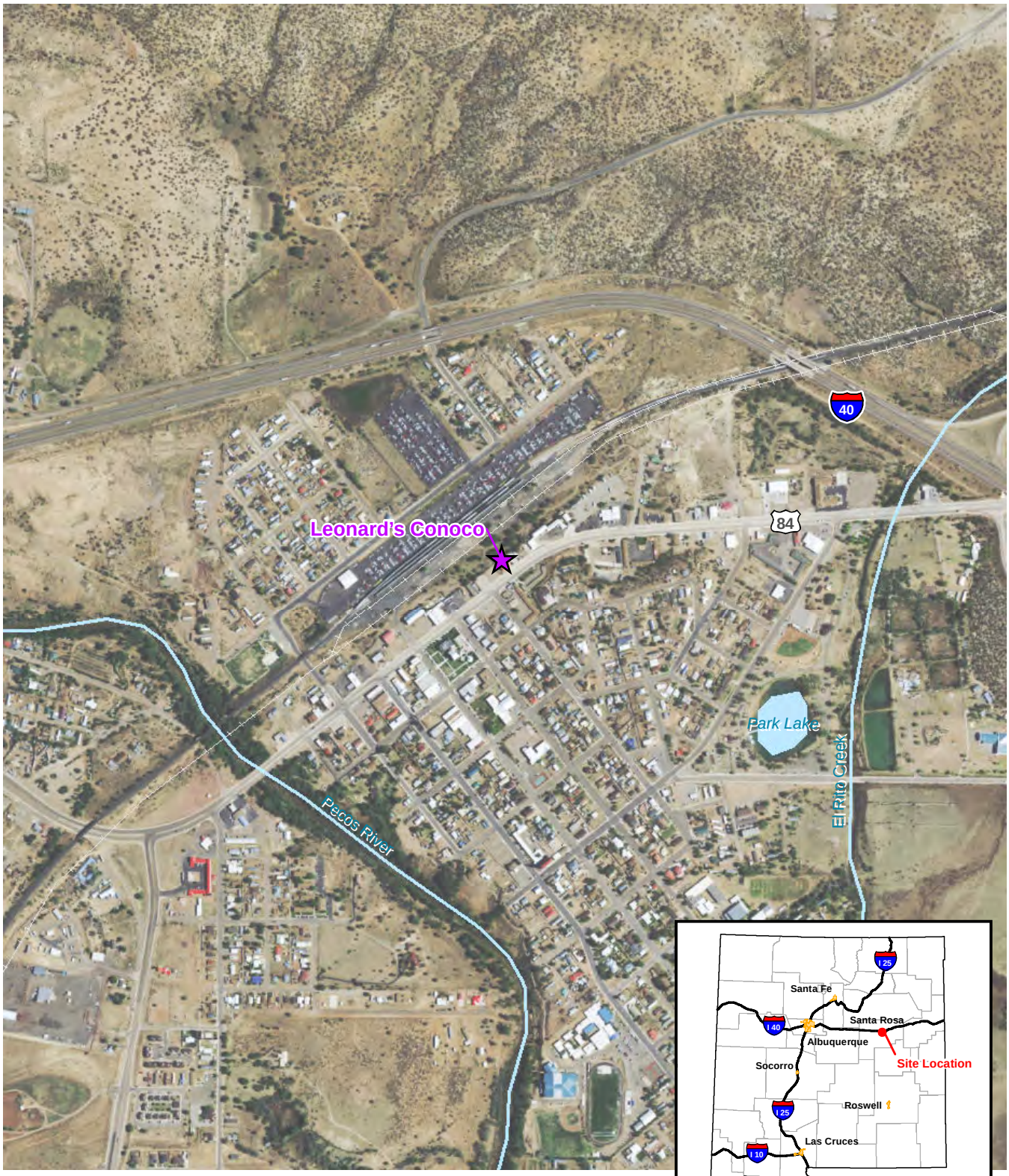
Tecumseh Professional Associates, Inc. (TPA). 2009. *Site evaluation and groundwater monitoring report 6-09, Former Leonard's Conoco, 603 Parker Avenue, Santa Rosa, New Mexico*. Submitted to the New Mexico Environment Department Petroleum Storage Tank Bureau. June 2009.

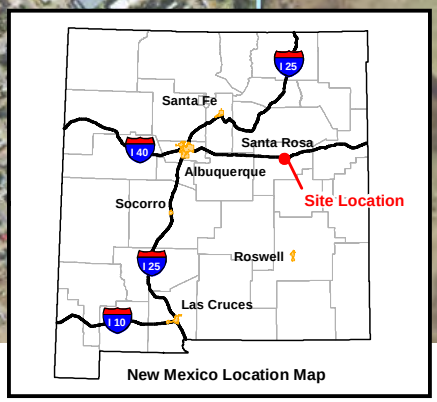
Figures

Site Name: Leonard's Conoco
PSTB Facility #: 29084
Date: September 8, 2016

LIST OF FIGURES

Figure		Included	N/A
1	Area Map	X	
2	Site Map	X	
3	Potentiometric Surface Elevations, July 29, 2016	X	
4	Distribution of Dissolved-Phase Contaminants, July 29, 2016	X	





Source: Aerial image courtesy of ESRI ArcGIS Online and data partners, including imagery from agencies supplied via the Content Sharing Program

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Daniel B. Stephens & Associates, Inc.
9/1/2016 JN ES14.0052.10

LEONARD'S CONOCO
Area Map
Figure 1

Source: Aerial image courtesy of Google Earth Pro., September 2014.

Explanation

- Monitor well
- Monitor well (destroyed)
- Monitor well (plugged and abandoned)
- Overhead electric pole

LEONARD'S CONOCO

Site Map

Daniel B. Stephens & Associates, Inc.

9/1/2016

JN ES14.0052.10

Figure 2

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Source: Aerial image courtesy of Google Earth Pro., September 2014.

Explanation

- Monitor well
- Potentiometric surface elevation contour (ft msl), dashed where inferred

MW-1A Monitor well designation

4600.52 Potentiometric surface elevation (ft msl)

LEONARD'S CONOCO

Potentiometric Surface Elevations July 29, 2016

Daniel B. Stephens & Associates, Inc.

9/1/2016

JN ES14.0052.10

Figure 3

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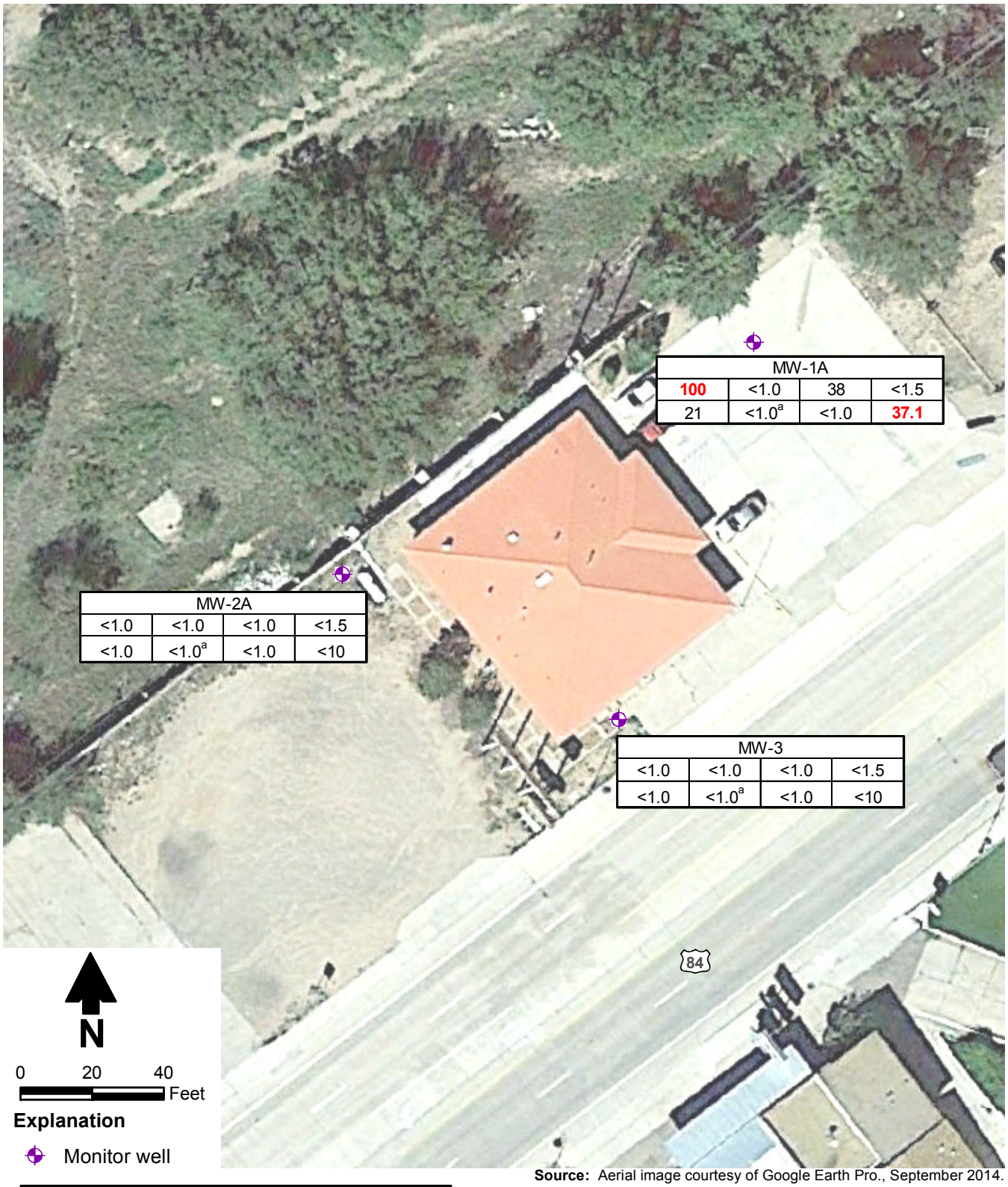

Source: Aerial image courtesy of Google Earth Pro., September 2014.

Location Designation			
Benzene	Toluene	Ethylbenzene	Total Xylenes
MTBE	EDB	EDC	Total Naphthalenes

Notes: 1. All concentrations reported in µg/L.
2. **Bold** indicates value that exceeds applicable standard.
3. [a] Laboratory reporting limit is equal to or greater than the applicable standard.

LEONARD'S CONOCO

Distribution of Dissolved-Phase Contaminants July 29, 2016

Daniel B. Stephens & Associates, Inc.

9/1/2016 JN ES14.0052.10

Figure 4

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Tables

Site Name: Leonard's Conoco
PSTB Facility #: 29084
Date: September 8, 2016

LIST OF TABLES

Table 1. Summary of Historical Fluid Level Measurements
Leonard's Conoco, Santa Rosa, New Mexico

Well Name	Top of Casing Elevation [a] (ft msl)	Date Measured	Depth to Water (ft btoc)	Depth to NAPL (ft btoc)	Groundwater Elevation (ft msl)
MW-1	4595.44	03/29/95	14.40	---	4581.04
		09/23/01	14.04	---	4581.40
		06/11/09	Well not found		
		10/30/13	Dry at 9.40		
		03/24/14	Plugged and abandoned		
MW-1A	4616.02	10/30/13	13.96	---	4602.06
		03/24/14	15.30	---	4600.72
		07/29/16	15.50	---	4600.52
MW-2	4595.68	03/29/95	14.76	—	4580.92
		03/20/00	Plugged and abandoned		
MW-2A	4613.39	09/23/01	---	—	4580.85
		06/11/09	Dry at 13.97 [b]		
		10/30/13	12.54	—	4600.85
		03/24/14	Dry at 13.70 [b]		
		07/29/16	14.32	---	4599.07
MW-3	4615.02	03/29/95	10.10	—	4604.92
		09/23/01	12.49	—	4602.53
		06/11/09	13.90	—	4601.12
		10/30/13	12.50	—	4602.52
		03/24/14	14.04	—	4600.98
		07/29/16	14.64	---	4600.38 [c,d]
MW-4	4590.18	03/29/95	10.86	—	4579.32
		09/23/01	9.57	—	4580.61
		06/11/09	Well not found		
		10/30/13	Well not found		

Note: Data prior to July 2016 reported by Haller & Associates, Inc., April 1, 2014.

[a] MW-1A, MW-2A, and MW-3 were surveyed by Dennis Engineering on November 7, 2013.

[b] Roots in well casing were not penetrated beyond reported depth.

[c] Top of casing elevation questionable; concrete pad, vault, and well casing lifted up approx. 1 foot above grade.

[d] Groundwater elevation questionable due to unknown change in top of casing elevation.

ft msl = Feet above mean sea level
ft btoc = Feet below top of casing
NAPL = Nonaqueous-phase liquid
— = Not detected

Table 2. Summary of Groundwater Analytical Organic Chemistry Data
Leonard's Conoco, Santa Rosa, New Mexico

Monitor Well	Date Sampled	Concentration (µg/L) [a]							
		Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Total Naphthalenes
NMWQCC Standard		*10*	*750*	*750*	*620*	*100* [b]	*0.1*	*10*	*30*
MW-1	03/31/95	**440**	26	400	81	**320**	---	---	---
	11/07/97	**180**	2.7	36	6.5	**150**	ND	**13**	---
	10/18/98	**83**	2.7	71	12	43	ND	2.2	---
	03/20/99	**57**	ND	90	4.1	10	ND	ND	---
	12/31/00	Well not sampled							
	10/25/13	Well dry at 9.40 feet - not sampled							
	03/24/14	Plugged and abandoned							
MW-1A	10/25/13	**79**	<5.0	210	<7.5	<5.0	<5.0 [c]	<5.0	**79**
	03/24/14	**250**	<5.0	250	<7.5	18	<5.0 [c]	<5.0	**84**
	07/29/16	**100**	<1.0	38	<1.5	21	<1.0 [c]	<1.0	**37.1**
MW-2	03/31/95	**420**	6.4	540	86	4.5	---	---	---
	11/07/97	3.3	ND	1.6	2.3	1.2	ND	**15**	---
	10/18/98	6.3	ND	0.7	2.5	ND	ND	---	---
	03/20/00	Plugged and abandoned							
MW-2A	12/31/00	ND	ND	ND	ND	ND	ND	ND	---
	09/23/01	ND	ND	ND	ND	ND	ND	ND	---
	06/11/09	Well dry at 13.97 feet - not sampled							
	10/25/13	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0 [c]	<1.0	<4.0
	03/24/14	Well dry at 13.70 feet - not sampled							
	07/29/16	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0 [c]	<1.0	<10
MW-3	03/31/95	**39**	8.2	6.3	15	ND	---	---	---
	11/07/97	ND	ND	ND	ND	ND	ND	3.2	---
	10/18/98	ND	ND	ND	ND	ND	ND	0.8	---
	03/20/99	ND	ND	ND	ND	ND	ND	0.6	---
	12/31/00	ND	ND	ND	ND	ND	ND	ND	---

Table 2. Summary of Groundwater Analytical Organic Chemistry Data
Leonard's Conoco, Santa Rosa, New Mexico

Monitor Well	Date Sampled	Concentration (µg/L) [a]							
		Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDB	EDC	Total Naphthalenes
NMWQCC Standard		*10*	*750*	*750*	*620*	*100* [b]	*0.1*	*10*	*30*
MW-3 (cont.)	09/23/01	ND	ND	ND	ND	ND	ND	ND	---
	06/11/09	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0 [c]	<1.0	<10
	10/25/13	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0 [c]	<1.0	<4.0
	03/24/14	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0 [c]	<1.0	<4.0
	07/29/16	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0 [c]	<1.0	<10
MW-4	03/29/95	<0.5	3.0	<0.5	2.9	<2.5	---	---	---
	11/07/97	ND	ND	ND	ND	ND	ND	ND	---
	10/18/98	ND	ND	ND	ND	ND	ND	0.9	---
	03/20/99	ND	ND	ND	ND	ND	ND	0.3	---
	12/31/00	ND	ND	ND	ND	ND	ND	ND	---
	09/23/01	ND	ND	ND	ND	ND	ND	ND	---
	06/11/09	Well not found							
	10/25/13	Well not found							

Bold indicates value that exceeds the New Mexico Water Quality Control Commission (NMWQCC) standard.

Note: Data prior to July 2016 reported by Haller & Associates, Inc., April 1, 2014.

[a] Analyzed by U.S. EPA method 8260B, unless otherwise noted.

[b] MTBE standard is set by the New Mexico Environmental Improvement Board.

[c] Laboratory reporting limit is equal to or greater than the applicable standard.

µg/L = Micrograms per liter
MTBE = Methyl tertiary-butyl ether
EDB = 1,2-Dibromoethane
EDC = 1,2-Dichloroethane
--- = Not analyzed
ND = Non-detect

Appendices

Site Name: Leonard's Conoco
PSTB Facility #: 29084
Date: September 8, 2016

LIST OF APPENDICES

Appendix		Included	N/A
1	Photographic Documentation	X	
2	Sampling Protocol	X	
3	Field Notes	X	
4	Laboratory Report	X	
5	Graphs Showing Changes in Groundwater Elevations and Contaminant Concentrations in Site Wells over Time	X	

Appendix 1

Photographic Documentation

1. Damaged monitor well MW-3 surface completion.

2. Interior of monitor well MW-3 well vault.

Appendix 2

Sampling Protocol

Appendix 2. Sampling Protocol

2.1 Fluid Level and Parameter Measurements

Prior to collection of groundwater samples, a Solinst interface probe will be used to determine depths to water and nonaqueous-phase liquid (NAPL), if present. Water level data will be used to construct a site potentiometric surface map. A YSI 556 Multiprobe System (MPS) meter or equivalent device will be used to measure specific conductivity, pH, temperature, dissolved oxygen (DO), and oxidation-reduction potential (ORP). Field parameters will be measured at intervals of no less than once per casing volume during purging of a well for sampling.

2.2 Groundwater Monitor Well Sampling

To ensure a fresh flow of groundwater into the well bore, a minimum of three casing volumes will be removed from each well prior to sampling. If a well is purged dry, it will be sampled when the well has recharged. Wells will be purged and sampled using dedicated, disposable, polyethylene bailers. To minimize volatilization and ensure sample integrity, dedicated, disposable, polyethylene bottom-emptying devices will be used to transfer groundwater samples from the bailers to the appropriate sample containers.

Samples analyzed for volatile organic analytes (VOAs) will be collected in 40-milliliter (mL) glass bottles containing mercuric chloride preservative and capped with Teflon septa caps. Samples will be collected in a manner that prevents headspace in the bottles. Samples analyzed for dissolved iron, lead, and manganese will be field-filtered with 0.45-micron disposable filters, collected in 250-mL plastic containers, and preserved with nitric acid to a pH of less than 2. Samples analyzed for nitrate and sulfate will be collected in 500-mL plastic containers containing no preservative.

Immediately after collection, the sample containers will be placed on ice in an insulated cooler for delivery to the laboratory for analyses. Groundwater samples will be accompanied by full chain of custody documentation at all times.

Appendix 3

Field Notes

Projects (continued)

7/29/16 PMB

1150 onsite

Purpose: GWM

Weather: Clear; 98°F

Begin locating wells

*MW-3 is badly damaged

Photos taken.

1155 Calibrate YSI

pH	7.00	
	4.00	
	10.03	
Cond	1413	
ORP	220.0	
DO	85.0%	6.25 mg/L

1215 Begin gauging wells

TD	well ID	DTP	DTW	comment
unknown	MW-2A	—	14.32	roots
28.62	MW-3	—	14.64	Damaged
18.69	MW-1A	—	15.50	

Note: MW-3 appears to have been pulled up ~1' above grade; the Magistrate Court denies knowing how long it has been damaged.)

1350 PMB offsite; samples preserved on ice.

PMB 7/29/16

Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Leonard's Conoco
Project #: ES14.0052.10
Project Manager: Mike McVey

Sampler: Patrice Barlow
Sample Date: 7/29/16
Sample Time: 1230

Well #: MW-2A
Well Diameter: 2 (inches)
Depth to NAPL: — (feet btoc)
Depth to Water: 14.32 (feet btoc)
Total Depth of Well: unknown (feet)

Height of Water Column: ____ (feet)
Casing Volume: ____ (gal)
Purge Volume: ____ (gal)
Purge Method: bailer

Note:
One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	7.59	22.72	2895	7.9	4.68	---
1						---
2						---
3						---

Sample Description: 3 VOAs HgCl2 preserved
2 w/ headspace
unable to reach bottom of well due to roots
Physical Observations: cloudy, brown, odorless

Analytical Method(s): 8260B

Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Leonard's Conoco
Project #: ES14.0052.10
Project Manager: Mike McVey
Sampler: Patrice Barlow
Sample Date: 7/29/16
Sample Time: 1300

Well #: MW-3
Well Diameter: 2 (inches)
Depth to NAPL: — (feet btoc)
Depth to Water: 14.64 (feet btoc)
Total Depth of Well: 28.60 (feet)
Height of Water Column: 13.98 (feet)
Casing Volume: 2.24 (gal)
Purge Volume: 6.71 (gal)
Purge Method: bailer

Note:
One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	7.11	20.42	3536	70.7	2.16	---
1	7.10	20.24	3451	73.8	2.10	---
2	7.10	19.82	3457	78.8	1.64	---
3	7.10	19.43	3493	82.5	1.44	---

Sample Description: 3 VOAs, HgCl2 preserved

Physical Observations: Cloudy, brown, odorless

Analytical Method(s): 8260B

Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Leonard's Conoco
Project #: ES14.0052.10
Project Manager: Mike McVey

Sampler: Patrice Barlow
Sample Date: 7/29/16
Sample Time: 1325

Well #: MW-1A
Well Diameter: 2 (inches)
Depth to NAPL: — (feet btoc)
Depth to Water: 15.50 (feet btoc)
Total Depth of Well: 18.69 (feet)

Height of Water Column: 3.19 (feet)
Casing Volume: 0.51 (gal)
Purge Volume: 1.53 (gal)
Purge Method: bailer

Note:
One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	7.03	21.52	3144	-127.6	0.89	---
1	7.06	19.76	3125	-132.4	1.49	---
2	7.04	19.67	3110	-131.7	1.32	---
3	DRY					---

Sample Description: 3 VOAs HgCl2 preserved.

Physical Observations: Clear, colorless, HC odor

Analytical Method(s): 8260B

Appendix 4

Laboratory Report

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 15, 2016

Mike McVey

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL: (505) 822-9400
FAX (505) 822-8877

RE: Leonards Conoco OrderNo.: 1608065

Dear Mike McVey:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/1/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Daniel B. Stephens & Assoc. **Client Sample ID:** MW-2A
Project: Leonards Conoco **Collection Date:** 7/29/2016 12:30:00 PM
Lab ID: 1608065-001 **Matrix:** AQUEOUS **Received Date:** 8/1/2016 3:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **BCN**	
Benzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Toluene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Ethylbenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Naphthalene	ND	2.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1-Methylnaphthalene	ND	4.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
2-Methylnaphthalene	ND	4.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Acetone	ND	10		µg/L	1	8/9/2016 6:21:00 PM	R36332
Bromobenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Bromodichloromethane	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Bromoform	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Bromomethane	ND	3.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
2-Butanone	ND	10		µg/L	1	8/9/2016 6:21:00 PM	R36332
Carbon disulfide	ND	10		µg/L	1	8/9/2016 6:21:00 PM	R36332
Carbon Tetrachloride	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Chlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Chloroethane	ND	2.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Chloroform	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Chloromethane	ND	3.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
2-Chlorotoluene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
4-Chlorotoluene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
cis-1,2-DCE	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Dibromochloromethane	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Dibromomethane	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,1-Dichloroethane	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,1-Dichloroethene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,2-Dichloropropane	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,3-Dichloropropane	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
2,2-Dichloropropane	ND	2.0		µg/L	1	8/9/2016 6:21:00 PM	R36332

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Daniel B. Stephens & Assoc. **Client Sample ID:** MW-2A
Project: Leonards Conoco **Collection Date:** 7/29/2016 12:30:00 PM
Lab ID: 1608065-001 **Matrix:** AQUEOUS **Received Date:** 8/1/2016 3:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **BCN**	
1,1-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Hexachlorobutadiene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
2-Hexanone	ND	10		µg/L	1	8/9/2016 6:21:00 PM	R36332
Isopropylbenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
4-Isopropyltoluene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
4-Methyl-2-pentanone	ND	10		µg/L	1	8/9/2016 6:21:00 PM	R36332
Methylene Chloride	ND	3.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
n-Butylbenzene	ND	3.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
n-Propylbenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
sec-Butylbenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Styrene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
tert-Butylbenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
trans-1,2-DCE	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Trichlorofluoromethane	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Vinyl chloride	ND	1.0		µg/L	1	8/9/2016 6:21:00 PM	R36332
Xylenes, Total	ND	1.5		µg/L	1	8/9/2016 6:21:00 PM	R36332
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	8/9/2016 6:21:00 PM	R36332
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	8/9/2016 6:21:00 PM	R36332
Surr: Dibromofluoromethane	99.0	70-130		%Rec	1	8/9/2016 6:21:00 PM	R36332
Surr: Toluene-d8	99.6	70-130		%Rec	1	8/9/2016 6:21:00 PM	R36332

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Daniel B. Stephens & Assoc. **Client Sample ID:** MW-3
Project: Leonards Conoco **Collection Date:** 7/29/2016 1:00:00 PM
Lab ID: 1608065-002 **Matrix:** AQUEOUS **Received Date:** 8/1/2016 3:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **BCN**	
Benzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Toluene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Ethylbenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Naphthalene	ND	2.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1-Methylnaphthalene	ND	4.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
2-Methylnaphthalene	ND	4.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Acetone	ND	10		µg/L	1	8/9/2016 6:44:00 PM	R36332
Bromobenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Bromodichloromethane	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Bromoform	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Bromomethane	ND	3.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
2-Butanone	ND	10		µg/L	1	8/9/2016 6:44:00 PM	R36332
Carbon disulfide	ND	10		µg/L	1	8/9/2016 6:44:00 PM	R36332
Carbon Tetrachloride	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Chlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Chloroethane	ND	2.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Chloroform	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Chloromethane	ND	3.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
2-Chlorotoluene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
4-Chlorotoluene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
cis-1,2-DCE	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Dibromochloromethane	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Dibromomethane	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,1-Dichloroethane	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,1-Dichloroethene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,2-Dichloropropane	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,3-Dichloropropane	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
2,2-Dichloropropane	ND	2.0		µg/L	1	8/9/2016 6:44:00 PM	R36332

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Daniel B. Stephens & Assoc. **Client Sample ID:** MW-3
Project: Leonards Conoco **Collection Date:** 7/29/2016 1:00:00 PM
Lab ID: 1608065-002 **Matrix:** AQUEOUS **Received Date:** 8/1/2016 3:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **BCN**	
1,1-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Hexachlorobutadiene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
2-Hexanone	ND	10		µg/L	1	8/9/2016 6:44:00 PM	R36332
Isopropylbenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
4-Isopropyltoluene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
4-Methyl-2-pentanone	ND	10		µg/L	1	8/9/2016 6:44:00 PM	R36332
Methylene Chloride	ND	3.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
n-Butylbenzene	ND	3.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
n-Propylbenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
sec-Butylbenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Styrene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
tert-Butylbenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
trans-1,2-DCE	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Trichlorofluoromethane	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Vinyl chloride	ND	1.0		µg/L	1	8/9/2016 6:44:00 PM	R36332
Xylenes, Total	ND	1.5		µg/L	1	8/9/2016 6:44:00 PM	R36332
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	8/9/2016 6:44:00 PM	R36332
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	8/9/2016 6:44:00 PM	R36332
Surr: Dibromofluoromethane	98.4	70-130		%Rec	1	8/9/2016 6:44:00 PM	R36332
Surr: Toluene-d8	99.6	70-130		%Rec	1	8/9/2016 6:44:00 PM	R36332

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Daniel B. Stephens & Assoc. **Client Sample ID:** MW-1A
Project: Leonards Conoco **Collection Date:** 7/29/2016 1:25:00 PM
Lab ID: 1608065-003 **Matrix:** AQUEOUS **Received Date:** 8/1/2016 3:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **BCN**	
Benzene	100	10		µg/L	10	8/10/2016 5:31:00 PM	R36378
Toluene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Ethylbenzene	38	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Methyl tert-butyl ether (MTBE)	21	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,2,4-Trimethylbenzene	2.3	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Naphthalene	28	2.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1-Methylnaphthalene	9.1	4.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
2-Methylnaphthalene	ND	4.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Acetone	ND	10		µg/L	1	8/9/2016 7:07:00 PM	R36332
Bromobenzene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Bromodichloromethane	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Bromoform	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Bromomethane	ND	3.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
2-Butanone	ND	10		µg/L	1	8/9/2016 7:07:00 PM	R36332
Carbon disulfide	ND	10		µg/L	1	8/9/2016 7:07:00 PM	R36332
Carbon Tetrachloride	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Chlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Chloroethane	ND	2.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Chloroform	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Chloromethane	ND	3.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
2-Chlorotoluene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
4-Chlorotoluene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
cis-1,2-DCE	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Dibromochloromethane	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Dibromomethane	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,1-Dichloroethane	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,1-Dichloroethene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,2-Dichloropropane	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,3-Dichloropropane	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
2,2-Dichloropropane	ND	2.0		µg/L	1	8/9/2016 7:07:00 PM	R36332

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Daniel B. Stephens & Assoc. **Client Sample ID:** MW-1A
Project: Leonards Conoco **Collection Date:** 7/29/2016 1:25:00 PM
Lab ID: 1608065-003 **Matrix:** AQUEOUS **Received Date:** 8/1/2016 3:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **BCN**	
1,1-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Hexachlorobutadiene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
2-Hexanone	ND	10		µg/L	1	8/9/2016 7:07:00 PM	R36332
Isopropylbenzene	3.6	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
4-Isopropyltoluene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
4-Methyl-2-pentanone	ND	10		µg/L	1	8/9/2016 7:07:00 PM	R36332
Methylene Chloride	ND	3.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
n-Butylbenzene	ND	3.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
n-Propylbenzene	3.5	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
sec-Butylbenzene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Styrene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
tert-Butylbenzene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
trans-1,2-DCE	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Trichlorofluoromethane	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Vinyl chloride	ND	1.0		µg/L	1	8/9/2016 7:07:00 PM	R36332
Xylenes, Total	ND	1.5		µg/L	1	8/9/2016 7:07:00 PM	R36332
Surr: 1,2-Dichloroethane-d4	99.8	70-130		%Rec	1	8/9/2016 7:07:00 PM	R36332
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	8/9/2016 7:07:00 PM	R36332
Surr: Dibromofluoromethane	97.5	70-130		%Rec	1	8/9/2016 7:07:00 PM	R36332
Surr: Toluene-d8	98.2	70-130		%Rec	1	8/9/2016 7:07:00 PM	R36332

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Daniel B. Stephens & Assoc. **Client Sample ID:** TRIP BLANK
Project: Leonards Conoco **Collection Date:**
Lab ID: 1608065-004 **Matrix:** TRIP BLANK **Received Date:** 8/1/2016 3:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **BCN**	
Benzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Toluene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Ethylbenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Naphthalene	ND	2.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1-Methylnaphthalene	ND	4.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
2-Methylnaphthalene	ND	4.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Acetone	ND	10		µg/L	1	8/9/2016 7:31:00 PM	R36332
Bromobenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Bromodichloromethane	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Bromoform	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Bromomethane	ND	3.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
2-Butanone	ND	10		µg/L	1	8/9/2016 7:31:00 PM	R36332
Carbon disulfide	ND	10		µg/L	1	8/9/2016 7:31:00 PM	R36332
Carbon Tetrachloride	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Chlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Chloroethane	ND	2.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Chloroform	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Chloromethane	ND	3.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
2-Chlorotoluene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
4-Chlorotoluene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
cis-1,2-DCE	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Dibromochloromethane	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Dibromomethane	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,1-Dichloroethane	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,1-Dichloroethene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,2-Dichloropropane	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,3-Dichloropropane	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
2,2-Dichloropropane	ND	2.0		µg/L	1	8/9/2016 7:31:00 PM	R36332

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Daniel B. Stephens & Assoc. **Client Sample ID:** TRIP BLANK
Project: Leonards Conoco **Collection Date:**
Lab ID: 1608065-004 **Matrix:** TRIP BLANK **Received Date:** 8/1/2016 3:45:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **BCN**	
1,1-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Hexachlorobutadiene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
2-Hexanone	ND	10		µg/L	1	8/9/2016 7:31:00 PM	R36332
Isopropylbenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
4-Isopropyltoluene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
4-Methyl-2-pentanone	ND	10		µg/L	1	8/9/2016 7:31:00 PM	R36332
Methylene Chloride	ND	3.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
n-Butylbenzene	ND	3.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
n-Propylbenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
sec-Butylbenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Styrene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
tert-Butylbenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
trans-1,2-DCE	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Trichlorofluoromethane	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Vinyl chloride	ND	1.0		µg/L	1	8/9/2016 7:31:00 PM	R36332
Xylenes, Total	ND	1.5		µg/L	1	8/9/2016 7:31:00 PM	R36332
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%Rec	1	8/9/2016 7:31:00 PM	R36332
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	8/9/2016 7:31:00 PM	R36332
Surr: Dibromofluoromethane	96.7	70-130		%Rec	1	8/9/2016 7:31:00 PM	R36332
Surr: Toluene-d8	101	70-130		%Rec	1	8/9/2016 7:31:00 PM	R36332

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608065**

15-Aug-16

Client: Daniel B. Stephens & Assoc.

Project: Leonards Conoco

Sample ID **100ng lcs 2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R36332**	RunNo: **36332**
Prep Date:	Analysis Date: **8/9/2016**	SeqNo: **1126005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.3	70	130			
Toluene	18	1.0	20.00	0	92.1	70	130			
Chlorobenzene	19	1.0	20.00	0	93.6	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	89.7	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		99.8	70	130			

Sample ID **vsb fridge**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R36332**	RunNo: **36332**
Prep Date:	Analysis Date: **8/9/2016**	SeqNo: **1126007** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608065**

15-Aug-16

Client: Daniel B. Stephens & Assoc.

Project: Leonards Conoco

Sample ID **vsb fridge**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R36332**	RunNo: **36332**
Prep Date:	Analysis Date: **8/9/2016**	SeqNo: **1126007** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608065**

15-Aug-16

Client: Daniel B. Stephens & Assoc.

Project: Leonards Conoco

Sample ID **vsb fridge**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R36332**	RunNo: **36332**
Prep Date:	Analysis Date: **8/9/2016**	SeqNo: **1126007** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R36378**	RunNo: **36378**
Prep Date:	Analysis Date: **8/10/2016**	SeqNo: **1126802** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	16	1.0	20.00	0	80.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.4		10.00		94.1	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R36378**	RunNo: **36378**
Prep Date:	Analysis Date: **8/10/2016**	SeqNo: **1126803** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.9	70	130			
Surr: Toluene-d8	9.9		10.00		98.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: DBS | Work Order Number: 1608065 | RcptNo: 1

Received by/date: AG 08/01/16

Logged By: Ashley Gallegos 8/1/2016 3:45:00 PM

Completed By: Ashley Gallegos 8/1/2016 4:21:52 PM

Reviewed By: dJ 08/02/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Not Present			

Chain-of-Custody Record

Client: DBSA

Mailing Address: 3020 Academy RD NE Stellar ABQ 87109

Phone #: 822-9400

Email or Fax#: mmckee@dbstephens

QA/QC Package: ☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: ☑ Standard ☐ Rush

Project Name: Leonard's Conoco

Project #: ES14.0052.10

Project Manager: Mike McKee

Sampler: T. Barton

On Ice: ☑ Yes ☐ No

Sample Temperature: 3.6-1.0=2.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1608405	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
8/9/16	1230	GW	MW-2A	3 VOAs	HgCl2	-001										✓		
↓	1300	↓	MW-3	↓	↓	-002										✓		
	1325		MW-1A			-003										✓		
	—		Trip Blank	2 VOAs	↓	-004										✓		

Date: 8/11/16 Time: 1545 Relinquished by:

Received by: Date 08/11/16 Time 1545

Date: Time: Relinquished by:

Received by: Date Time

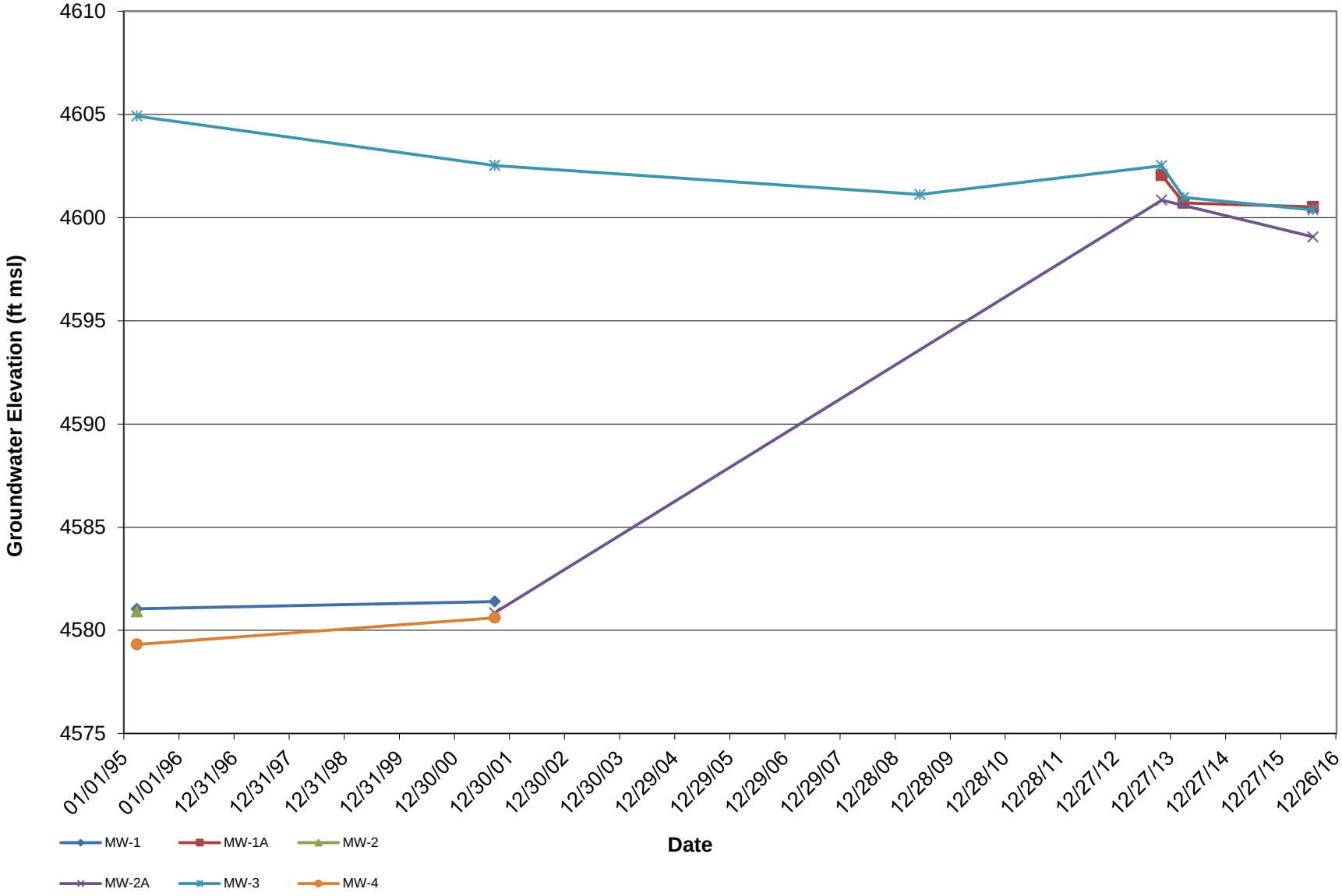
Remarks:

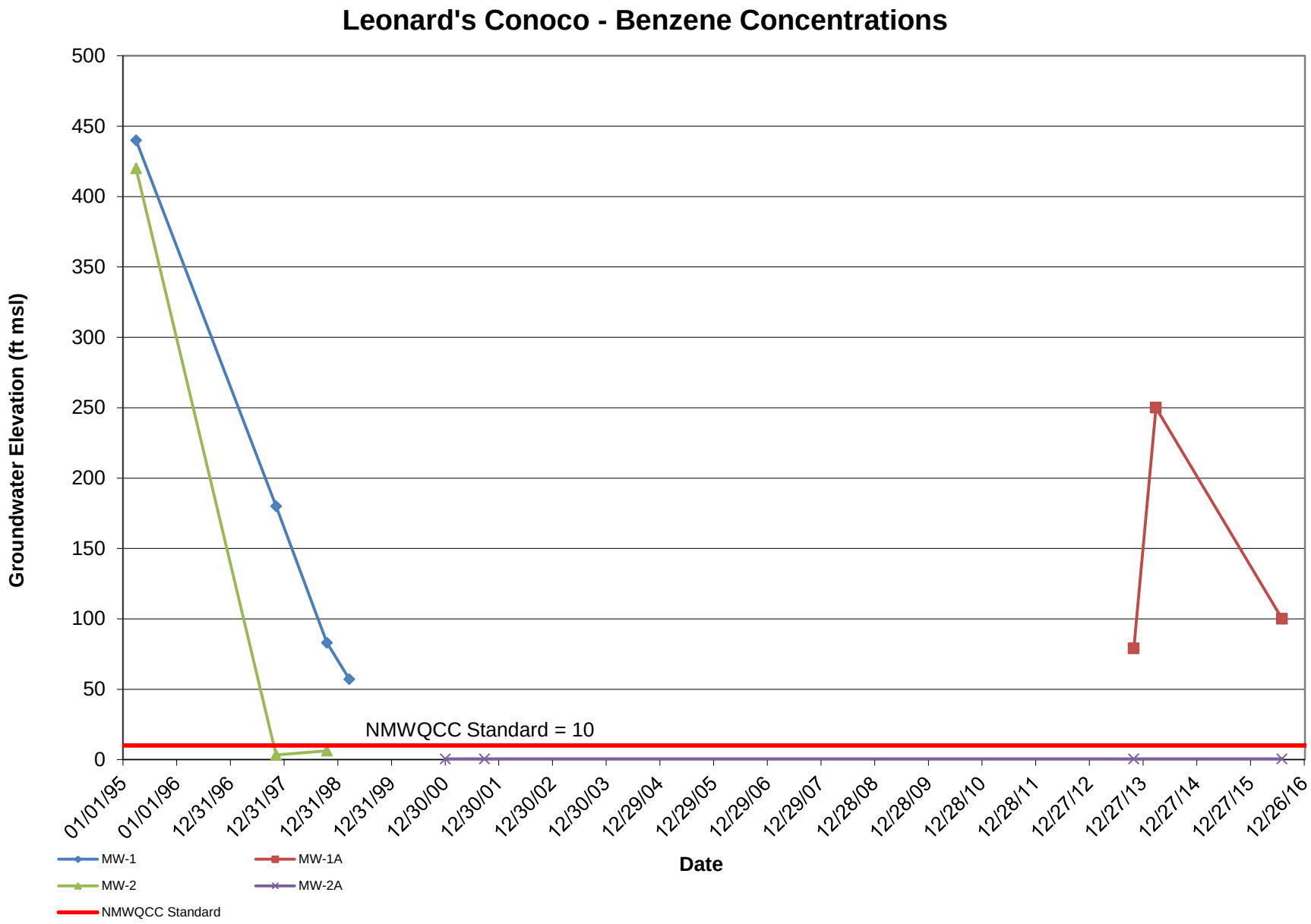
If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

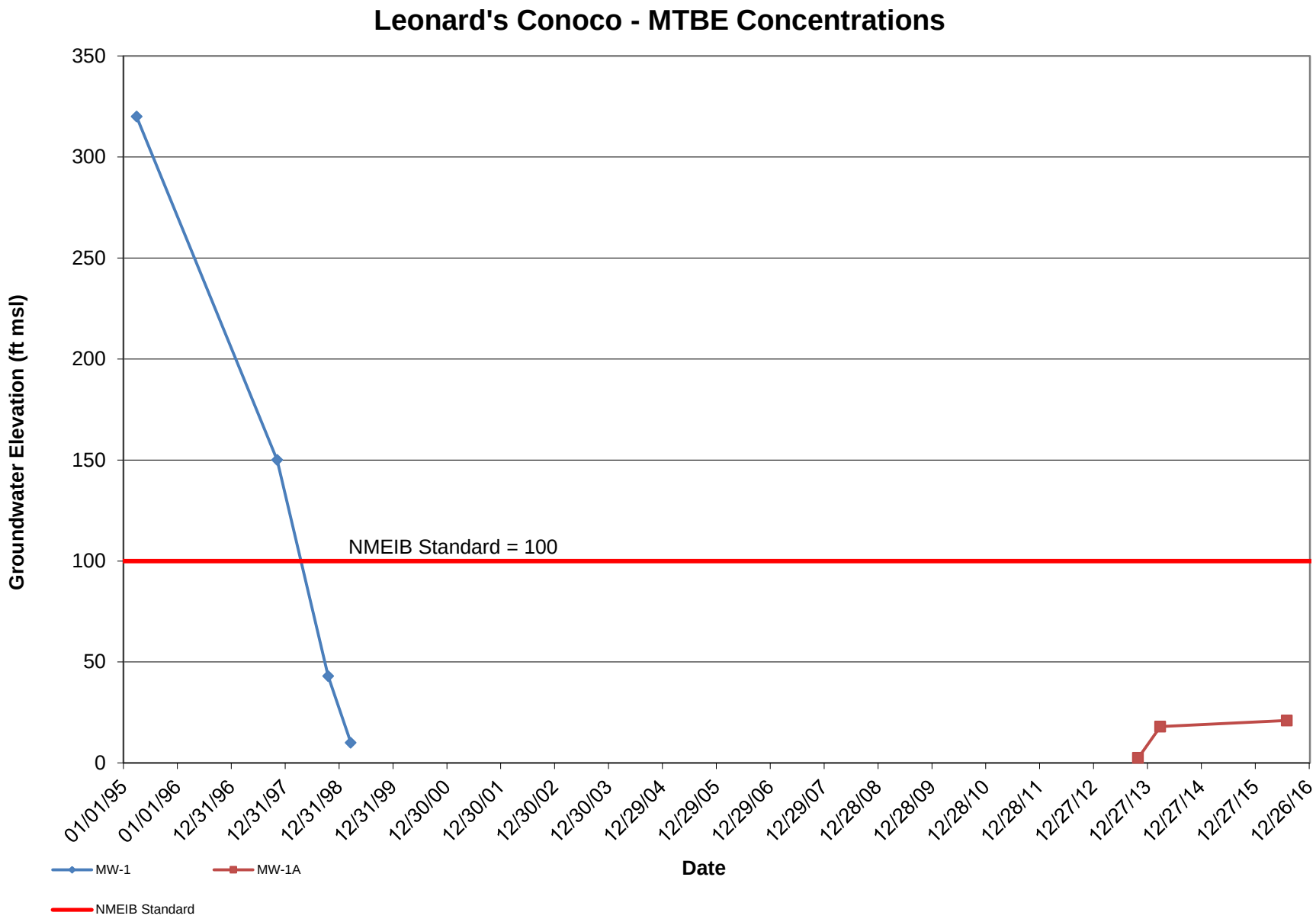
Appendix 5

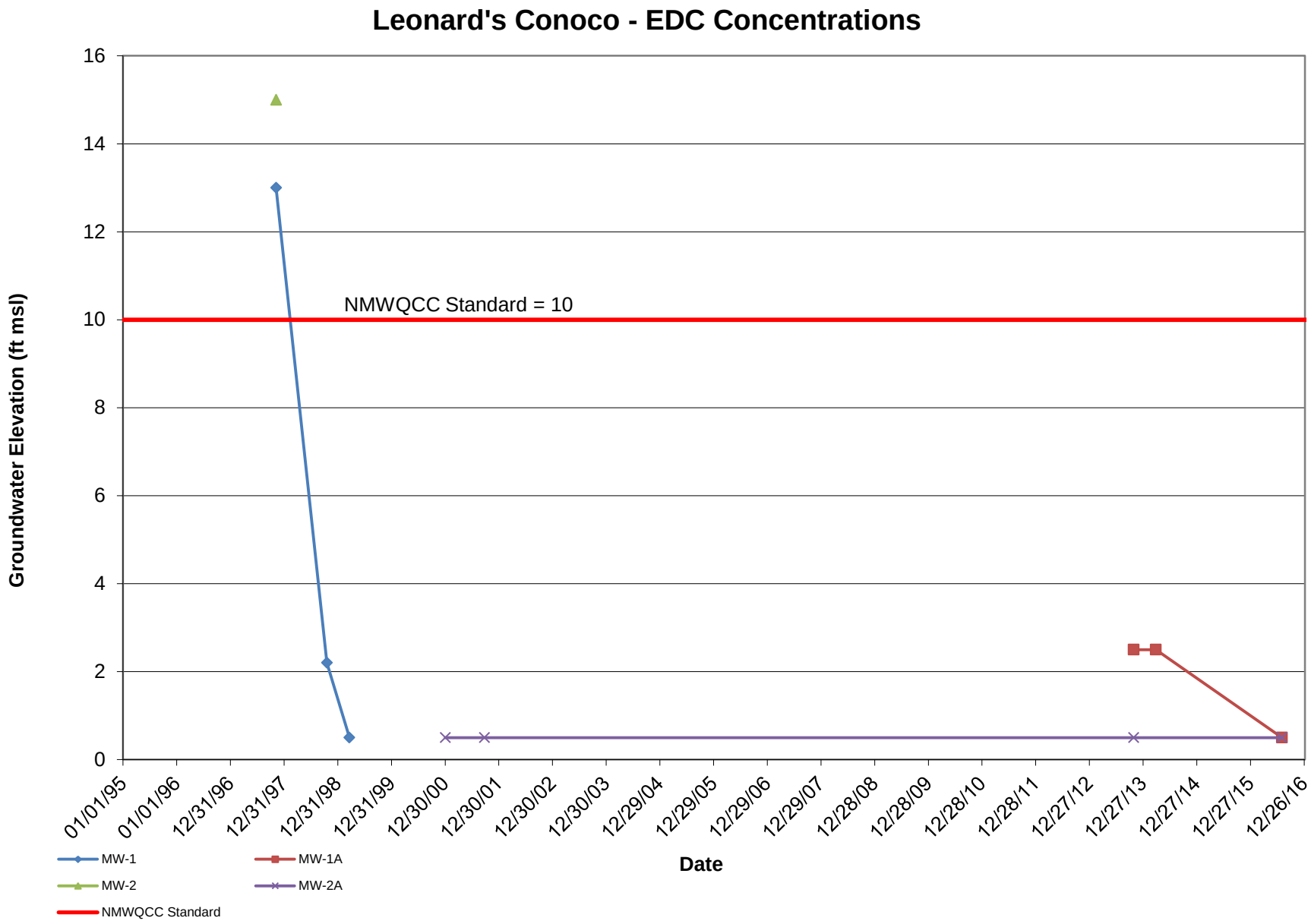
Graphs Showing Changes in Groundwater Elevations and Contaminant Concentrations in Site Wells over Time

Leonard's Conoco - Groundwater Elevations




Leonard's Conoco - Benzene Concentrations
Groundwater Elevation (ft msl)
500
450
400
350
300
250
200
150
100
50
0
NMWQCC Standard = 10
01/01/95
01/01/96
12/31/96
12/31/97
12/31/98
12/31/99
12/30/00
12/30/01
12/30/02
12/30/03
12/29/04
12/29/05
12/29/06
12/29/07
12/28/08
12/28/09
12/28/10
12/28/11
12/27/12
12/27/13
12/27/14
12/27/15
12/26/16
Date
MW-1
MW-1A
MW-2
MW-2A
NMWQCC Standard


Leonard's Conoco - MTBE Concentrations
Groundwater Elevation (ft msl)
350
300
250
200
150
100
50
0
NMEIB Standard = 100
01/01/95
01/01/96
12/31/96
12/31/97
12/31/98
12/31/99
12/30/00
12/30/01
12/30/02
12/30/03
12/29/04
12/29/05
12/29/06
12/29/07
12/28/08
12/28/09
12/28/10
12/28/11
12/27/12
12/27/13
12/27/14
12/27/15
12/26/16
Date
MW-1
MW-1A
NMEIB Standard


Leonard's Conoco - EDC Concentrations
Groundwater Elevation (ft msl)
16
14
12
10
8
6
4
2
0
NMWQCC Standard = 10
01/01/95
01/01/96
12/31/96
12/31/97
12/31/98
12/31/99
12/30/00
12/30/01
12/30/02
12/30/03
12/29/04
12/29/05
12/29/06
12/29/07
12/28/08
12/28/09
12/28/10
12/28/11
12/27/12
12/27/13
12/27/14
12/27/15
12/26/16
Date
MW-1
MW-1A
MW-2
MW-2A
NMWQCC Standard

Leonard's Conoco - Total Naphthalenes Concentrations