3R - 090

2014 AGWMR

04 / 16 / 2015

John F. (Rick) Greiner, CPG, P.G.
ConocoPhillips Company
Risk Management & Remediation Program
Manager/Director Corp. Waste Management Program
600 N. Dairy Ashford, MA 1004
Houston, TX 77079
Phone: 281-293-3264
E-mail: Rick.Greiner@conocophillips.com

ConocoPhillips

Mr. Glenn von Gonten
New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

April 16, 2015

Re: NMOCD Case No. 3R-090, 2014 Annual Groundwater Monitoring Report

Dear Mr. von Gonten:

Enclosed is the 2014 Annual Groundwater Monitoring Report for the Nell Hall No. 1 site. This report, prepared by Conestoga-Rovers & Associates (CRA), contains the results of groundwater monitoring from March, June, September, and December 2014.

Please let me know if you have any questions.

Sincerely,

Rick Greiner

Enc

CONESTOGA-ROVERS & ASSOCIATES

www.CRAworld.com

2014 Annual Groundwater Monitoring Report

ConocoPhillips Nell Hall No. 1
San Juan County, New Mexico
API# 30-045-09619
NMOCD# 3R-090

Prepared for: ConocoPhillips Company

Conestoga-Rovers & Associates
6121 Indian School Road, NE Suite 200
Albuquerque, New Mexico 87110

February 2015 • 074941 • Report No. 6

Partners in Sustainability

Table of Contents

Page

List of Figures
(Following Text)

List of Tables
(Following Text)

List of Appendices

Section 1.0 Introduction

This report presents the results of quarterly groundwater monitoring events conducted by Conestoga-Rovers & Associates (CRA) on March 20 - 21, June 18, September 15, and December 15, 2014 at the ConocoPhillips Company (ConocoPhillips), Nell Hall No. 1 remediation site (Site), located on private land in Section 7, Township 30N, Range 11W of San Juan County, New Mexico, approximately 2 miles west of the city of Aztec, New Mexico. Geographical coordinates for the Site are 36.821659° North, 108.037319° West. The Site consists of a natural gas well and associated equipment. The location and Site layout are presented as **Figures 1** and **2**, respectively.

1.1 Background

The history of the Site is presented in **Table 1** and is summarized in the following paragraphs.

Environmental investigation at the Site began when closure of an unlined dehydrator discharge pit was attempted in the early 1990's. Soil impacts were discovered during earthmoving activities and groundwater monitoring wells MW-1, MW-2, and MW-3 were subsequently installed to determine if hydrocarbons had impacted groundwater beneath the Site. An ongoing drought caused the water table to fall below the screened intervals of MW-1, MW-2, and MW-3. On February 17 and 18, 2004, Souder Miller and Associates (SMA) installed monitoring wells MW-4, MW-5, and MW-6 at sufficient depths to intersect the water table and to account for the effects of further seasonal or drought-based water table fluctuations (Souder Miller and Associates, 2004). Boring log data from MW-4 and MW-6 were used to create a geologic cross-section for the Site (**Figure 3)**.

Tetra Tech, Inc. (Tetra Tech) began quarterly sampling of monitoring wells MW-4, MW-5, and MW-6 in 2004, adjusting to a semi-annual sampling schedule in 2005, followed by annual sampling beginning in 2006. Semi-annual sampling was resumed in 2007 due to seasonal groundwater fluctuations.

On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech to CRA of Albuquerque, NM.

Currently, groundwater sampling is attempted quarterly, but is typically only possible semi-annually due to seasonal groundwater fluctuations which often render some monitoring wells dry.

Section 2.0 Groundwater Monitoring Methodology and Analytical Results

2.1 Groundwater Monitoring Methodology

Groundwater Elevation Measurements

Depth to groundwater was gauged at monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 using an oil/water interface probe prior to sampling and can be found in **Table 2**. Groundwater potentiometric surface maps detailing groundwater elevations, groundwater flow direction, and gradient, using data collected during the 2014 quarterly sampling events, are presented as **Figures 4, 5, 6**, and **7**, respectively.

Hydrographs illustrating groundwater level fluctuations since March 2004 in monitoring wells MW-5 and MW-6 are presented as **Figure 8** and **Figure 9**, respectively. These data indicate that groundwater elevations are consistently lowest during the late winter and early spring months. Historically, the groundwater flow direction and gradient vary from season to season. These fluctuations are believed to be the result of changes in irrigation rates and/or base flow conditions in the Animas River, which, at its closest point, lies approximately 0.6 mile to the south/southeast of the Site (**Figure 1**). Additionally, there is an irrigation ditch to the east of the site which may also influence groundwater gradient. Annual variation in groundwater elevation fluctuates as much as 18 feet over the course of a year. Groundwater flow direction at the site also varies in direction from south to southeast.

Groundwater Sampling

During the 2014 quarterly groundwater monitoring events, Site monitoring wells were purged of at least 3 casing volumes of groundwater using 1.5-inch diameter, polyethylene, dedicated bailers. While bailing each well, groundwater parameter data, including temperature, pH, conductivity, dissolved oxygen, and oxidation-reduction potential were collected using a YSI 556 multi-parameter Sonde and recorded on CRA Well Sampling Field Information Forms. A summary of field parameters for the quarterly groundwater monitoring events is presented as **Table 3**.

Groundwater samples were collected from monitoring wells MW-4, MW-5 and MW-6 during the 2014 sampling events except in March when only MW-5 had a sufficient amount of water. Approximately three well volumes were purged from each monitoring well with a dedicated, polyethylene, 1.5-inch, disposable bailer prior to sampling or monitoring wells were bailed dry and sampled following recharge.

Purge water generated during the event was disposed of in the on-site produced water tank (**Figure 2**). Groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain-of-custody documentation to Pace Analytical Services Inc. of Lenexa, KS.

The samples were analyzed for the presence of benzene, toluene, ethylbenzene and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260 and for dissolved iron by EPA Method 6010.

2.2 Groundwater Monitoring Results

The New Mexico Water Quality Control Commission (NMWQCC) mandates that groundwater quality in New Mexico be protected, and has issued groundwater quality standards in Title 20, Chapter 6, Part 2, Section 3103 of the New Mexico Administrative Code (20.6.2.3103 NMAC).

Results of the 2014 groundwater sampling events are discussed below.

March 2014

Only MW-5 had sufficient water for sampling. Analytical results from MW-5 indicate concentrations of BTEX and dissolved iron below laboratory detection limits.

June 2014

- **Benzene**
  - The NMWQCC Human Health Standard for benzene in groundwater is 0.01 milligrams per liter (mg/L). The groundwater sample collected in June 2014 from monitoring well MW-6 exceeded this standard with a concentration of 0.384 mg/L.

- **Dissolved Iron**
  - The groundwater quality standard for dissolved iron is 1.0 mg/L. The groundwater samples collected in June 2013 from monitoring wells MW-4 and MW-6 contained dissolved iron at concentrations of 1.83 mg/L and 15.5 mg/L, respectively.

September 2014

- **Benzene**
  - The groundwater sample collected in September 2014 from monitoring well MW-6 exceeded the NMWQCC standard with a concentration of 0.502 mg/L.

- **Dissolved Iron**
  - The groundwater samples collected in September 2014 from monitoring well MW-6 exceeded the NMWQCC standard with a concentration of 7.75 mg/L.

December 2014

- **Benzene**
  - The groundwater sample collected in December 2014 from monitoring well MW-6 exceeded the NMWQCC standard with a concentration of 0.333 mg/L.

- **Dissolved Iron**
  - The groundwater samples collected in December 2014 from monitoring well MW-6 exceeded the NMWQCC standard with a concentration of 5.45 mg/L.

Benzene concentration maps for the June, September, and December 2014 quarterly sampling events are presented as **Figures 10**, **11**, and **12**, respectively.

Benzene concentrations in MW-6 have fluctuated regularly since monitoring began in March 2004. An inverse correlation between water levels and benzene concentrations has been observed. A graph detailing this relationship is presented as **Figure 13**.

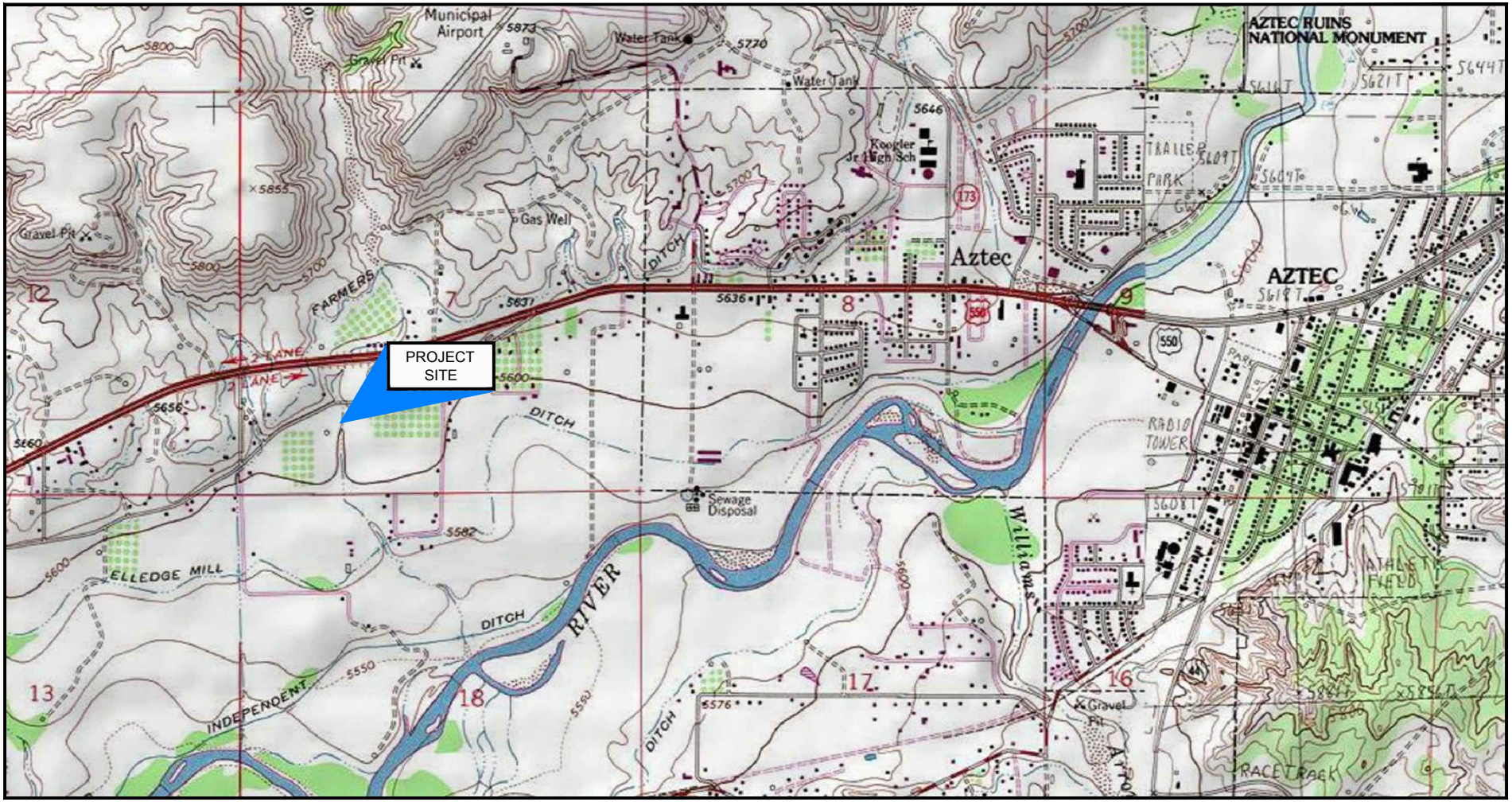
A summary of historical laboratory analytical results is presented as **Table 4**. Groundwater laboratory analytical reports can be found in **Appendix A**.

Section 3.0 Conclusions and Recommendations

In an October 30, 2014 meeting with COP and CRA, the New Mexico Oil Conservation Division requested the installation of additional monitoring wells to further assess hydrocarbon impacts down-gradient from monitoring well MW-6. Two monitoring wells are proposed in location presented on **Figure 14**.

Based on the detection of BTEX and dissolved iron in MW-6 during 2014 quarterly sampling events, CRA recommends continued groundwater quality monitoring for BTEX and dissolved iron in order to move toward remediation Site closure with NMOCD. All Site monitoring wells will be gauged quarterly. Monitoring wells MW-4, MW-5, and MW-6 will be sampled when possible due to the fluctuating groundwater levels at the Site. Remediation Site closure will be requested when all groundwater quality parameters are below NMWQCC groundwater quality standards, are stable, or are representative of background conditions at the Site.

Figures



SOURCE: USGS 7.5 MINUTE QUADS
"FLORA VISTA AND AZTEC, NEW MEXICO"

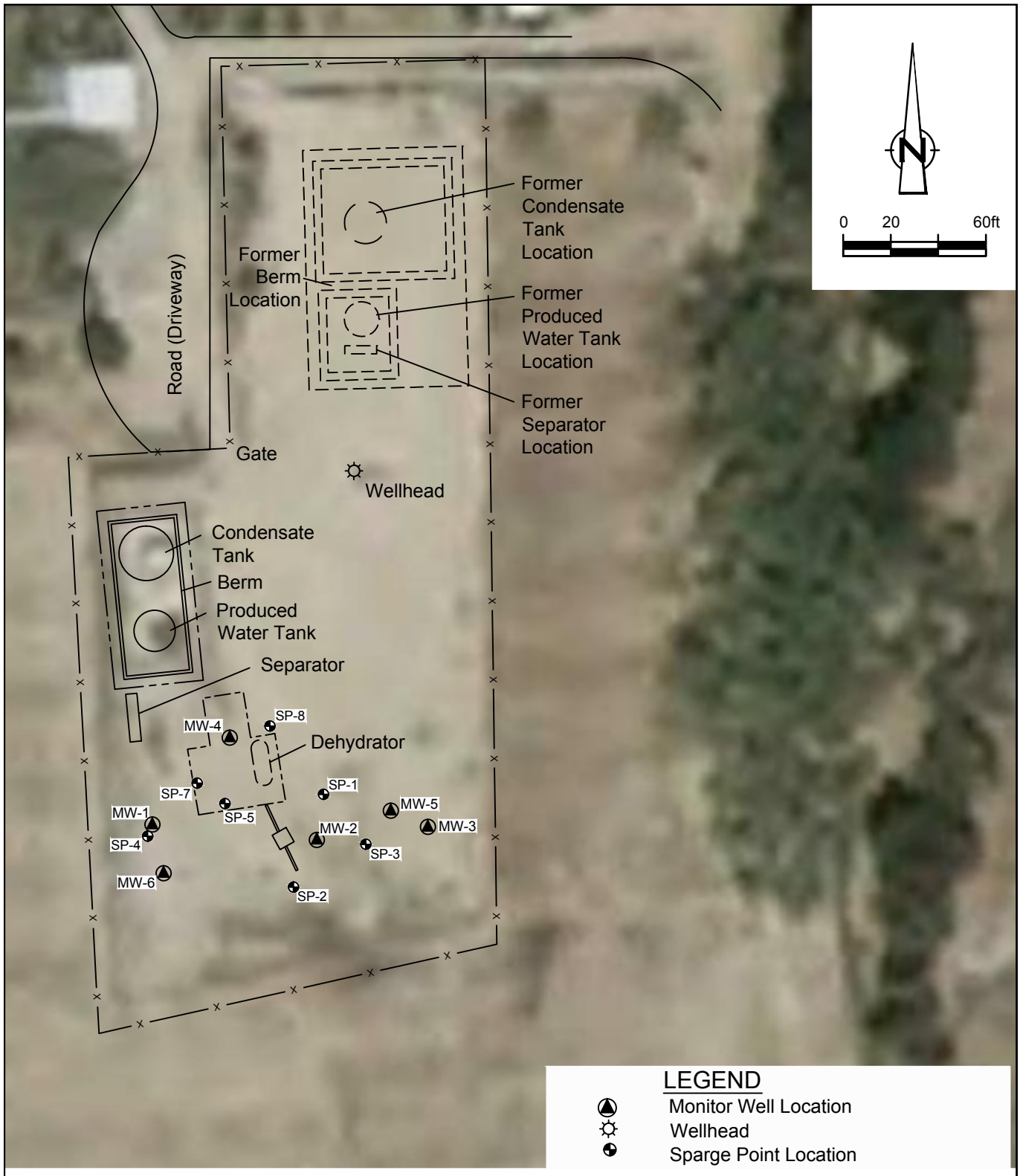
N

0 1000 2000ft

Figure 1

SITE VICINITY MAP
NELL HALL No. 1 NATURAL GAS WELL SITE
SECTION 07, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074941-95(006)GN-DL003_TOPO OCT 27/2014



ConocoPhillips high resolution aerial imagery 2008.

Figure 2

SITE PLAN
NELL HALL No. 1 NATURAL GAS WELL SITE
SECTION 07, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074941-95(006)GN-DL004 OCT 27/2014

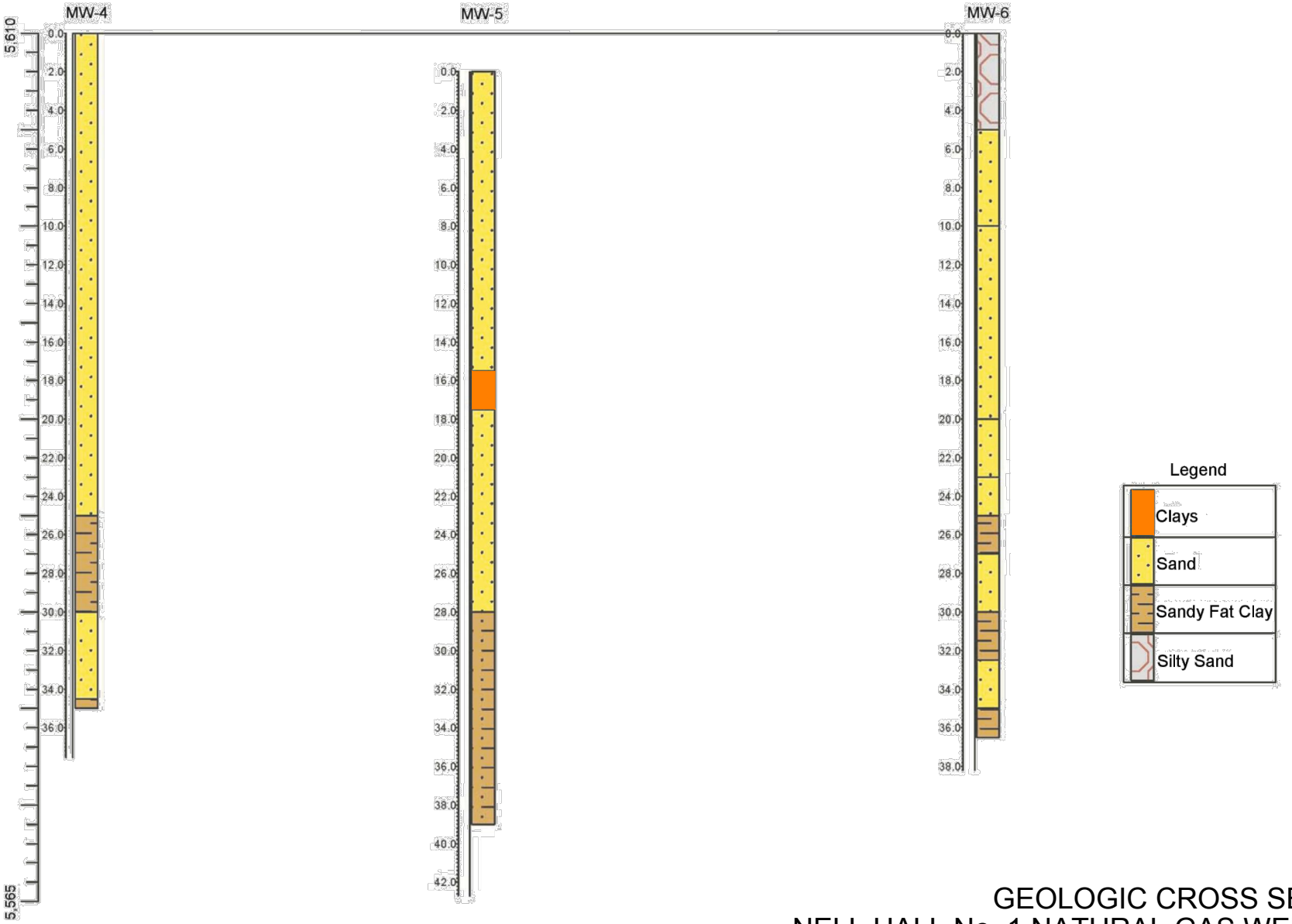


Figure 3

GEOLOGIC CROSS SECTION
NELL HALL No. 1 NATURAL GAS WELL SITE
SECTION 07, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

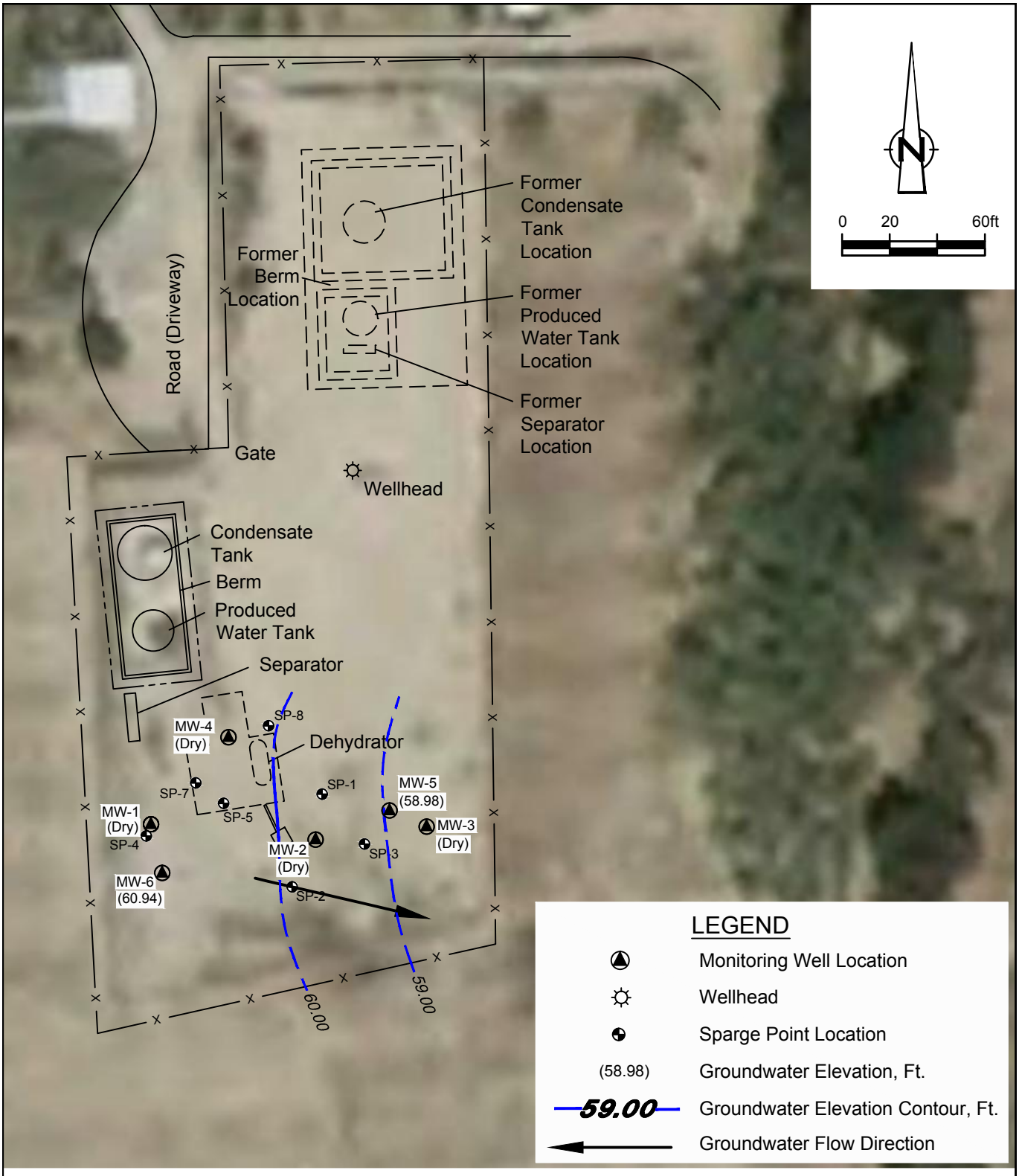


Figure 4

MARCH 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
NELL HALL No. 1 NATURAL GAS WELL SITE
SECTION 07, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

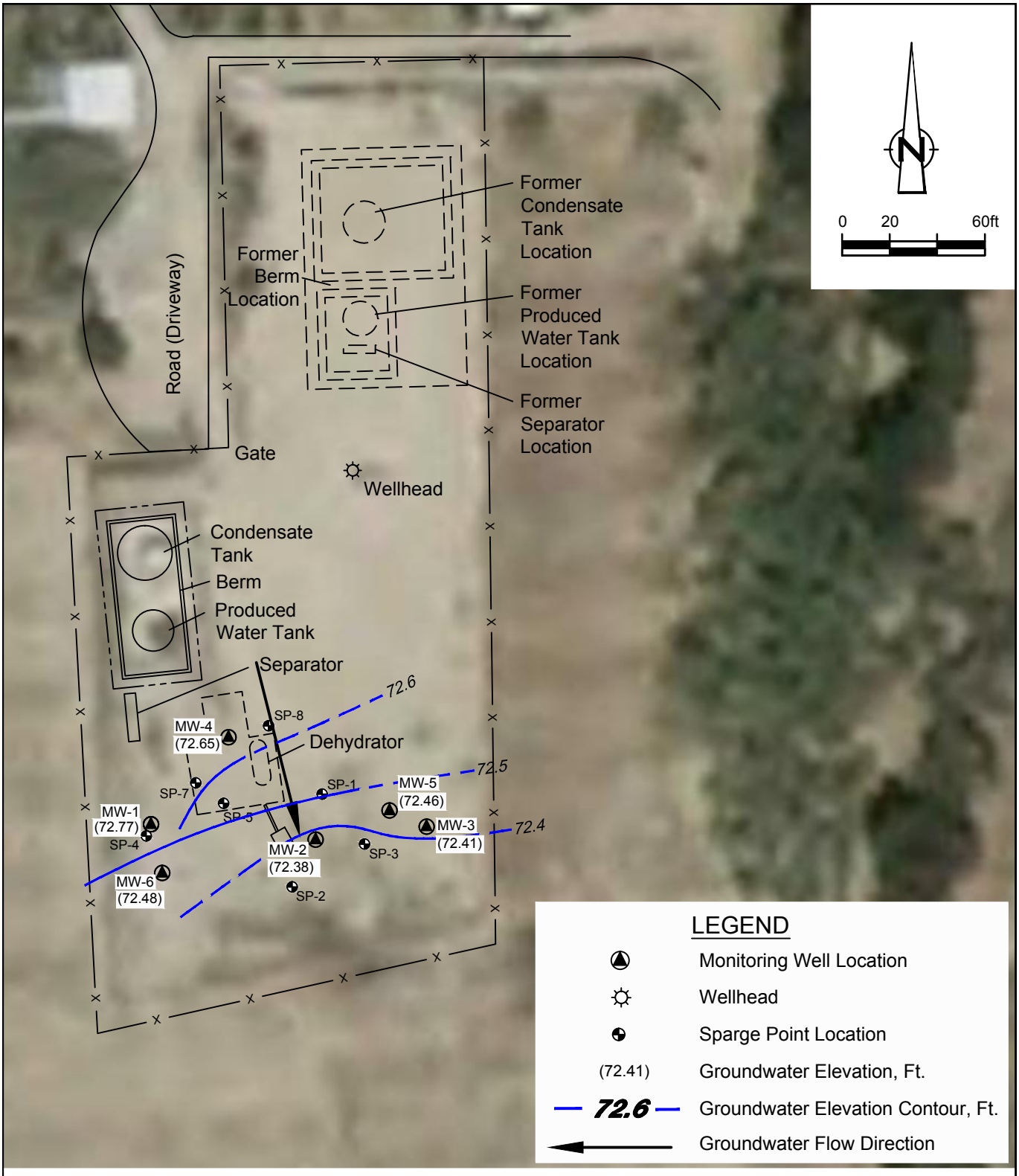


Figure 5

JUNE 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
NELL HALL No. 1 NATURAL GAS WELL SITE
SECTION 07, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074941-95(006)GN-DL001 OCT 28/2014

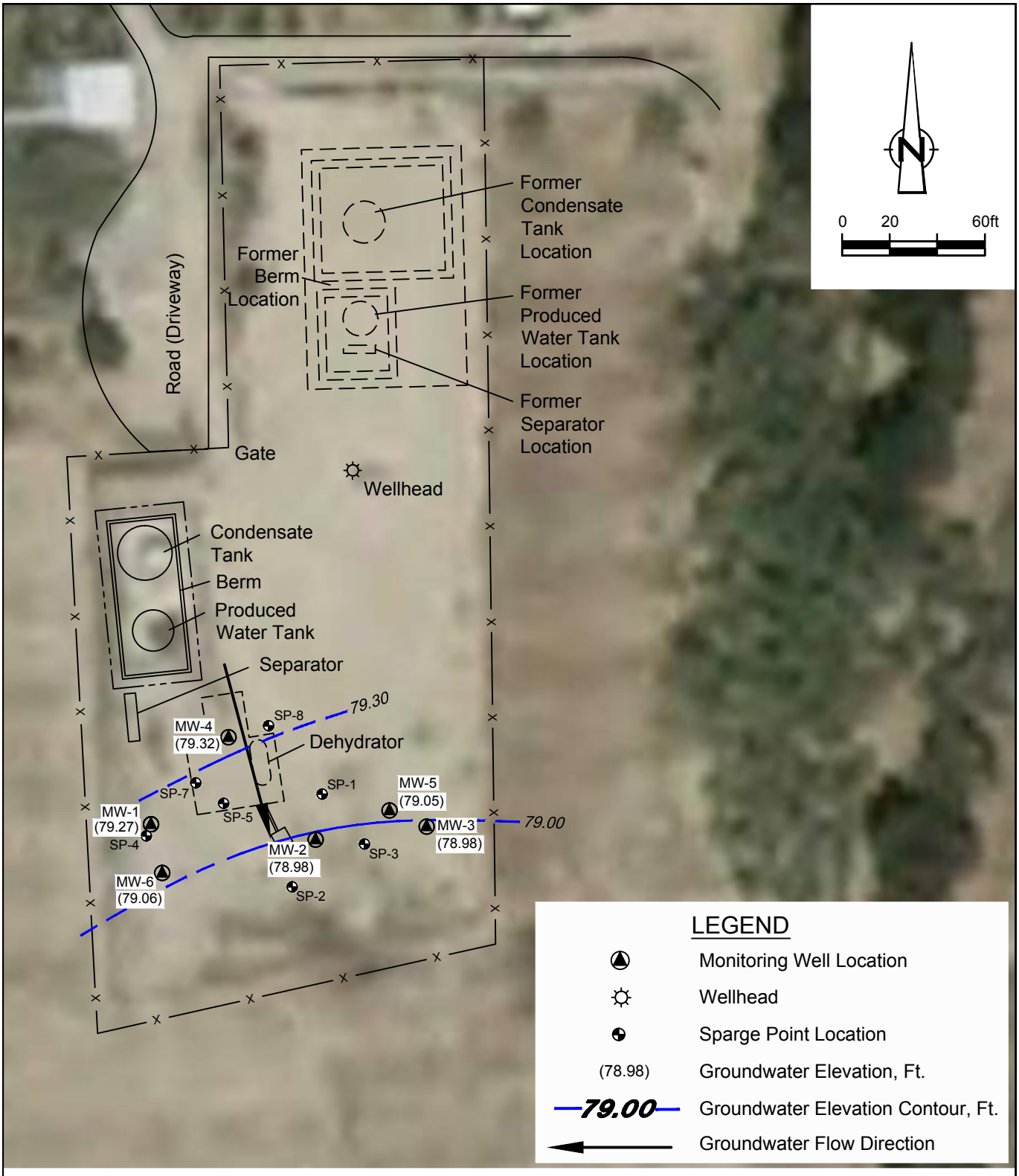


Figure 6

SEPTEMBER 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
NELL HALL No. 1 NATURAL GAS WELL SITE
SECTION 07, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074941-95(006)GN-DL001 OCT 28/2014

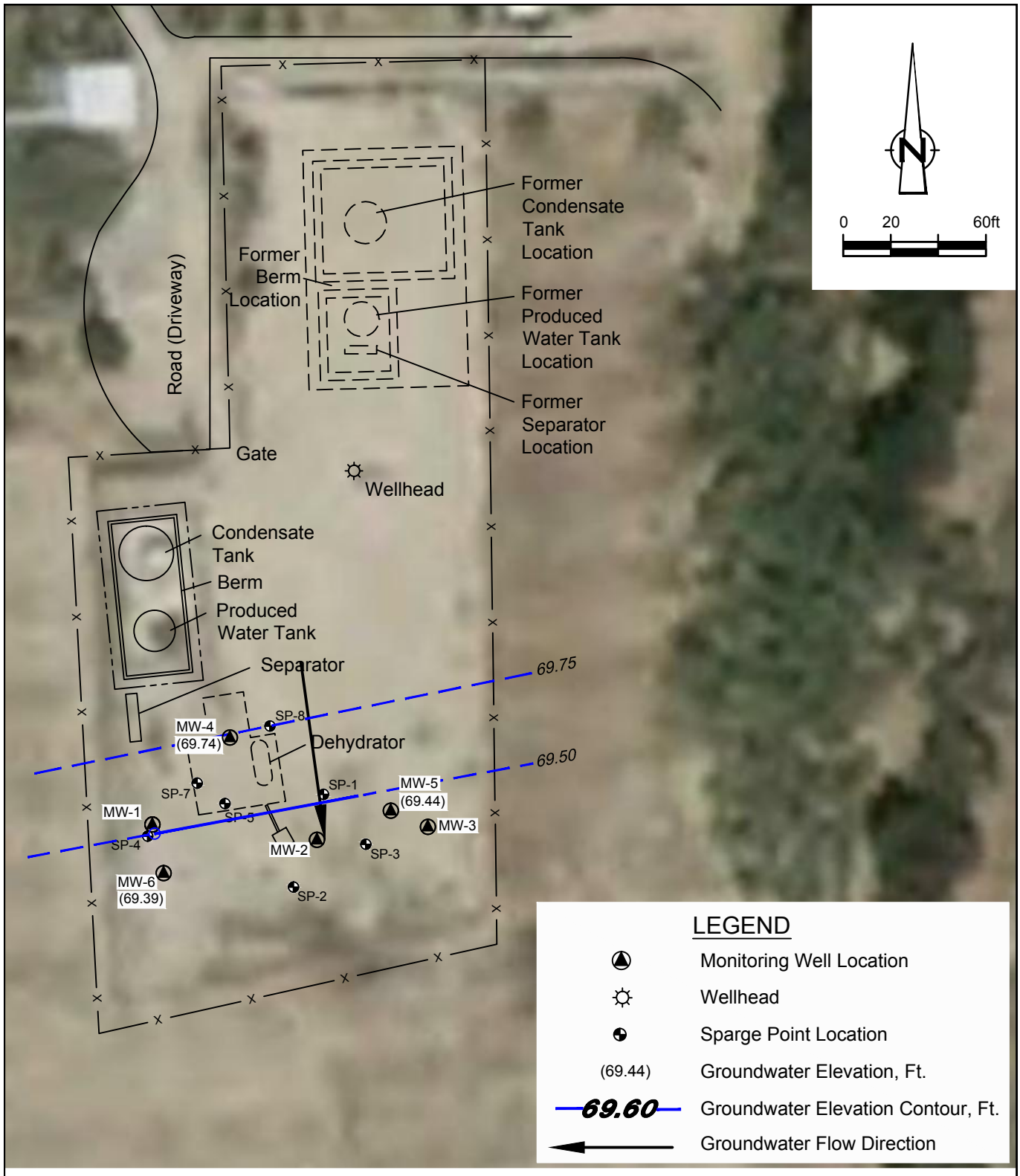


Figure 7

DECEMBER 2014 GROUNDWATER POTENTIOMETRIC SURFACE MAP
NELL HALL No. 1 NATURAL GAS WELL SITE
SECTION 07, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074941-95(006)GN-DL001 FEB 6/2015

Figure 8
MW-5 Hydrograph (March 2004 - December 2014)
ConocoPhillips Company Nell Hall No. 1 Site

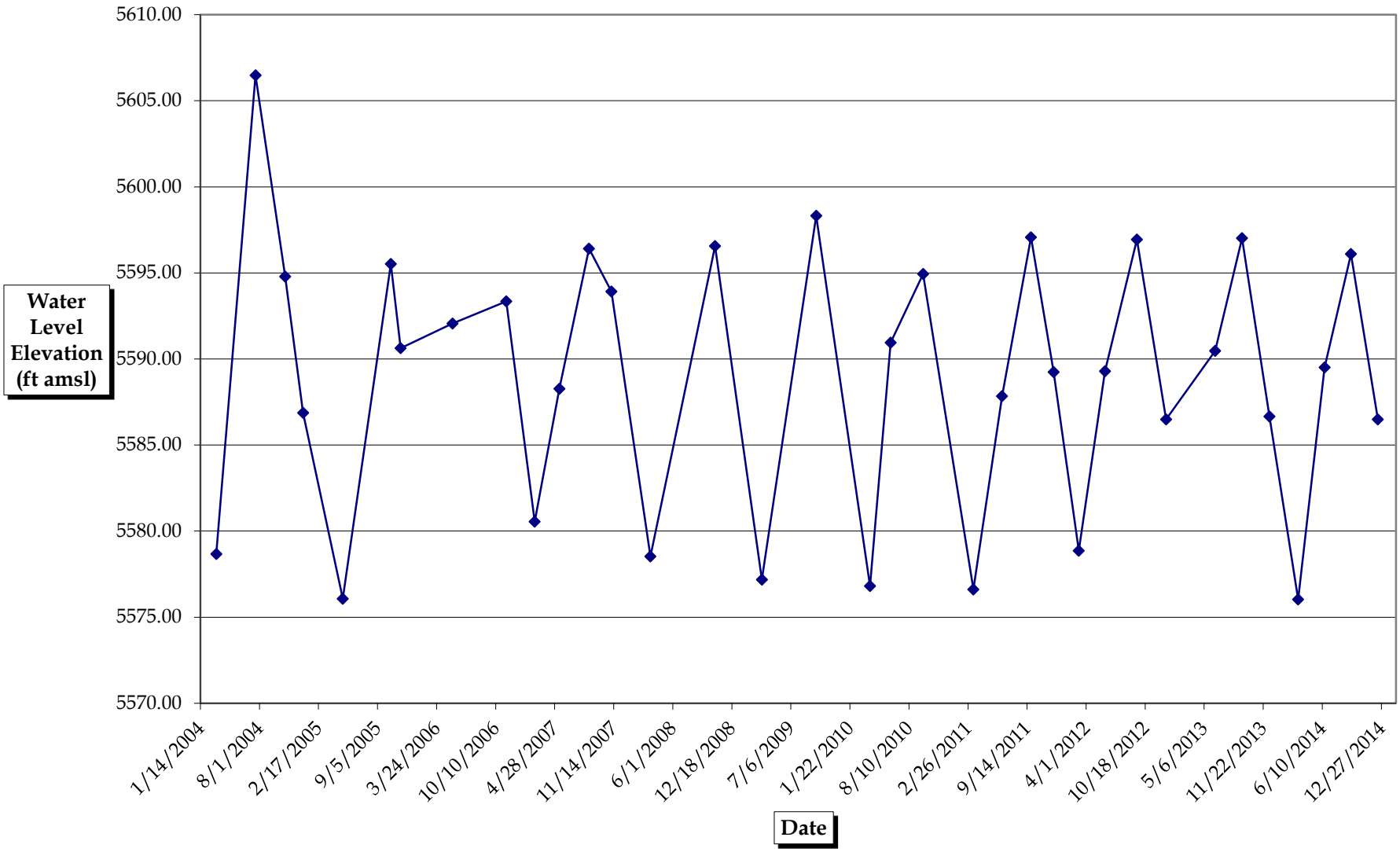
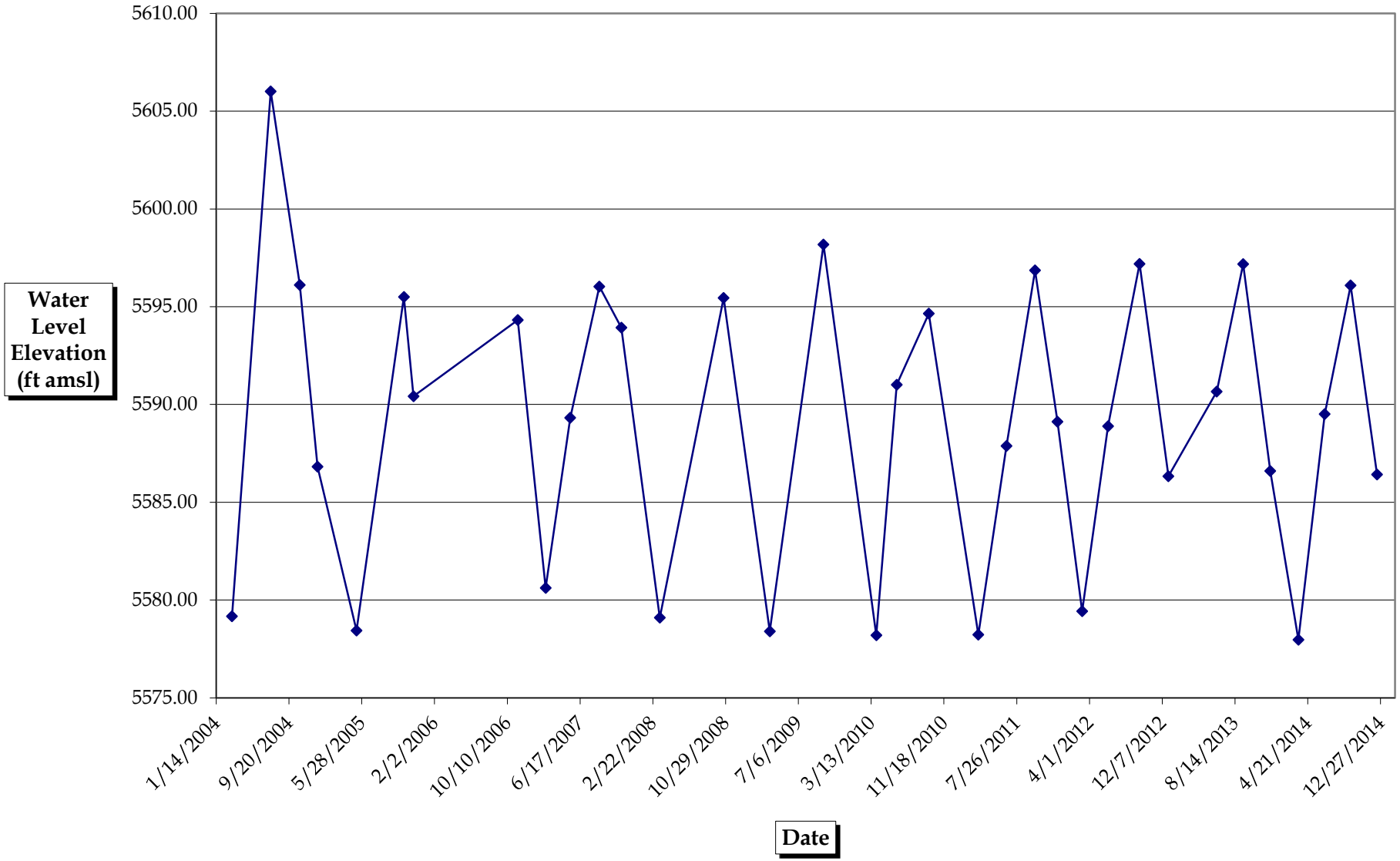


Figure 9
MW-6 Hydrograph (March 2004 - December 2014)
ConocoPhillips Company Nell Hall No. 1 Site



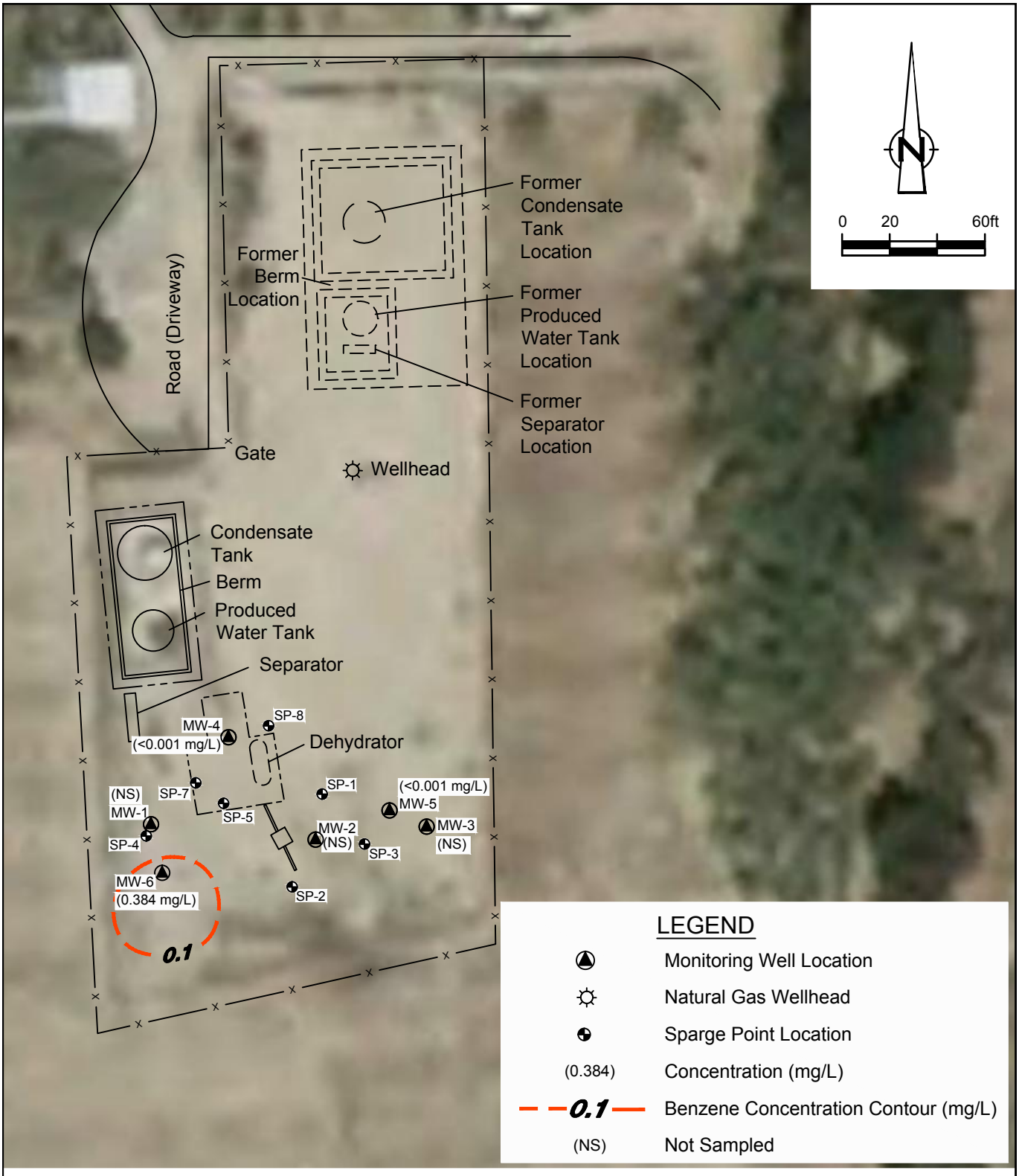


Figure 10

JUNE 2014 BENZENE CONCENTRATION MAP
NELL HALL No. 1 NATURAL GAS WELL SITE
SECTION 07, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

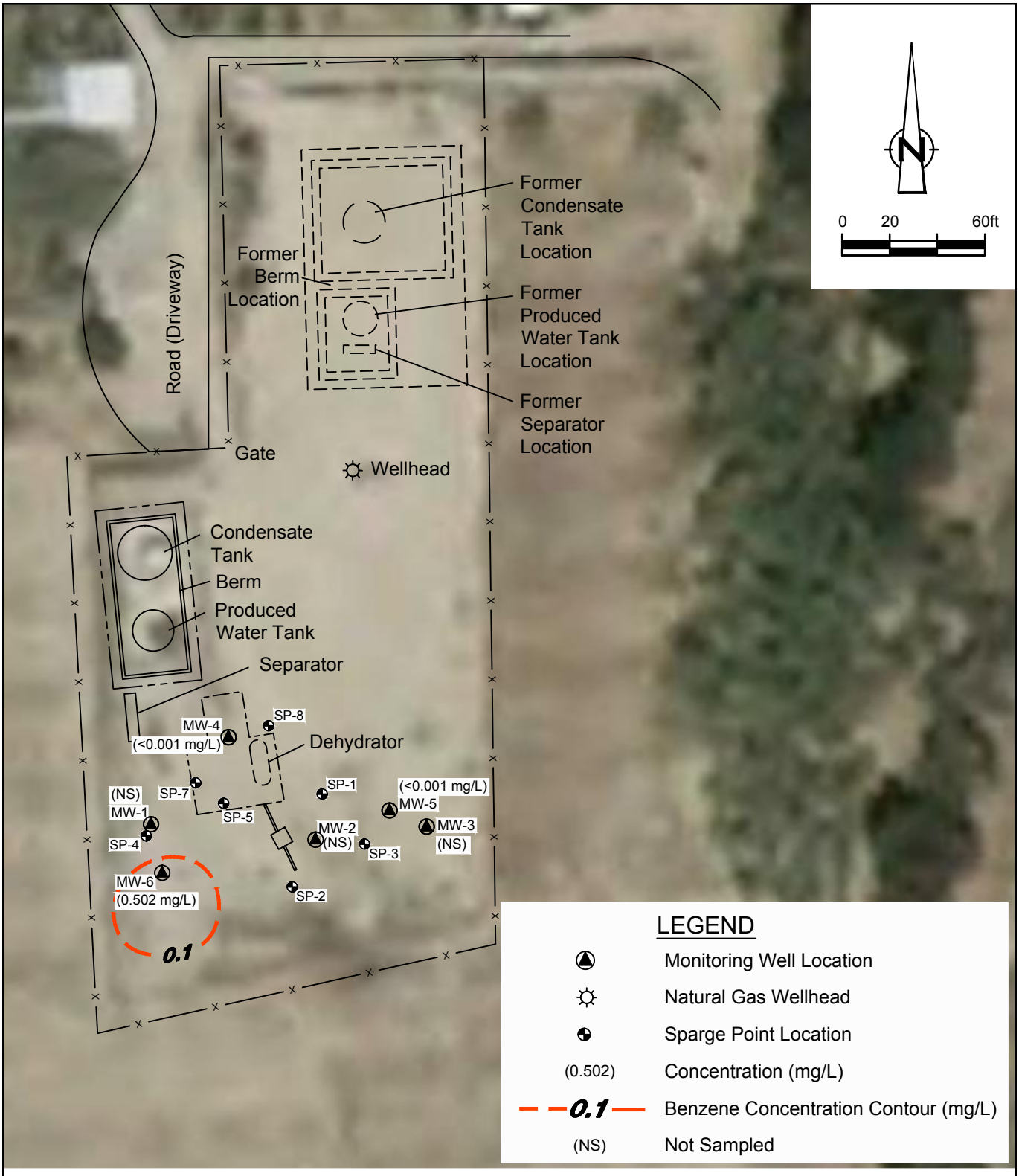


Figure 11

SEPTEMBER 2014 BENZENE CONCENTRATION MAP
NELL HALL No. 1 NATURAL GAS WELL SITE
SECTION 07, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

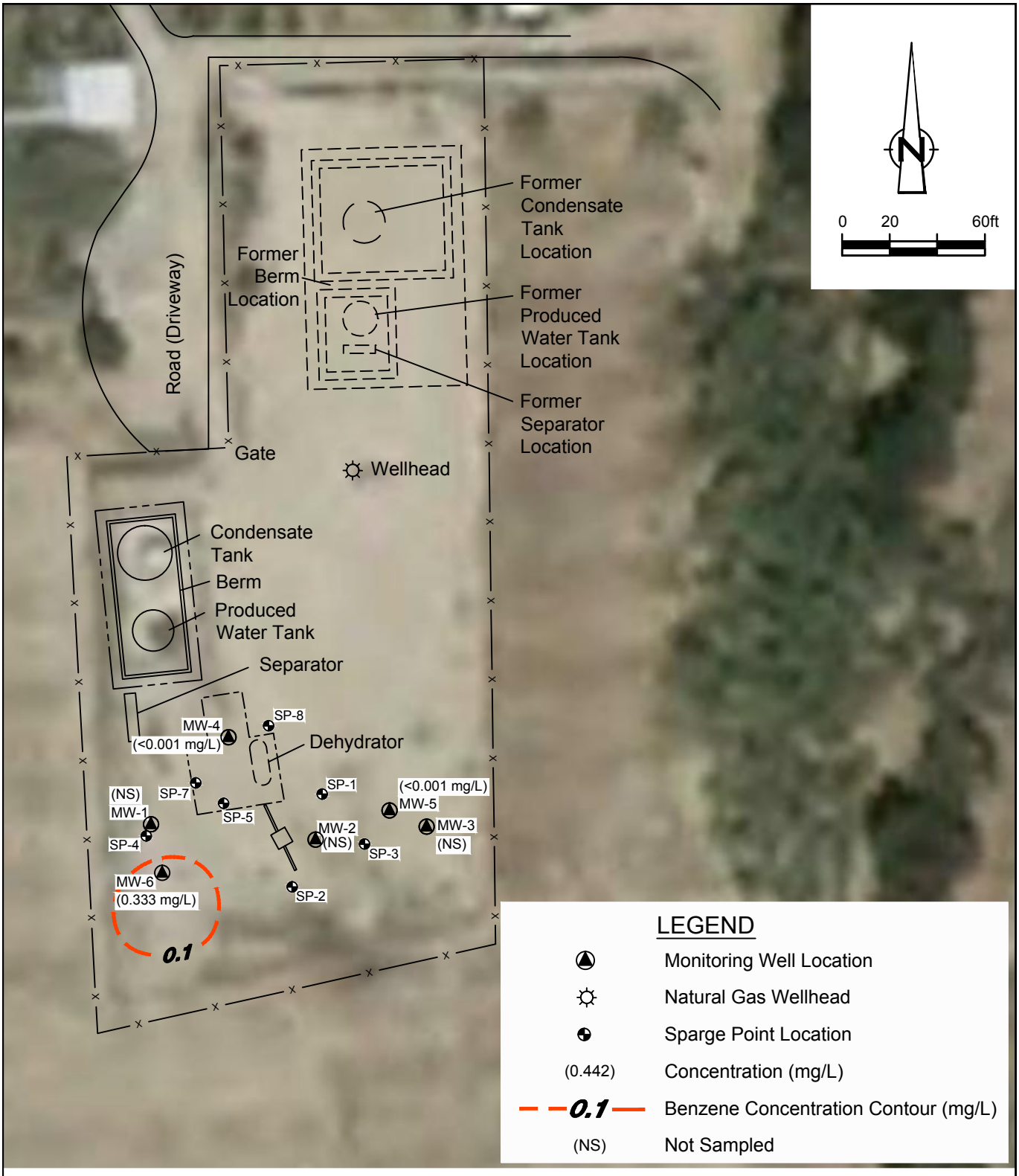
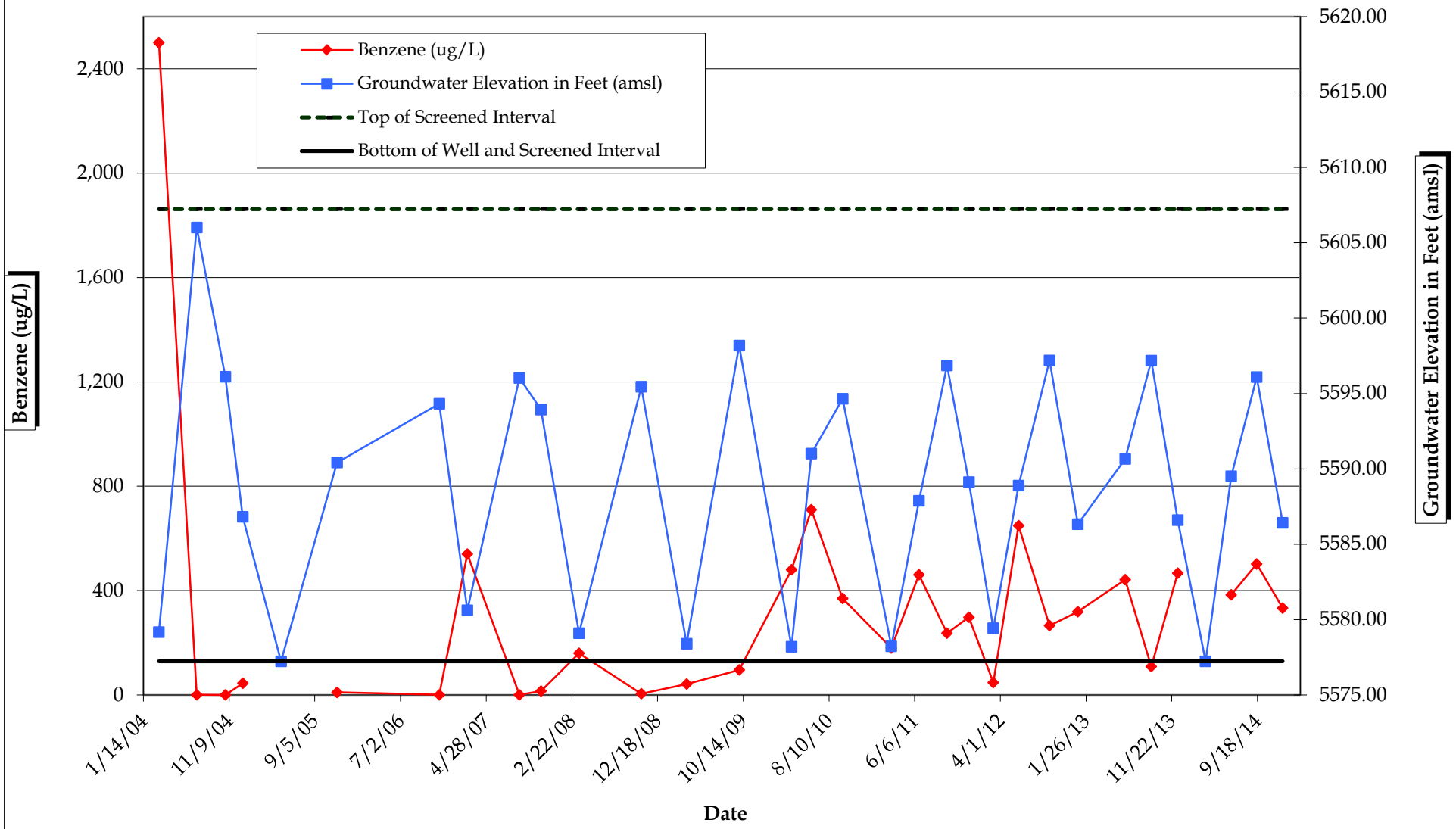
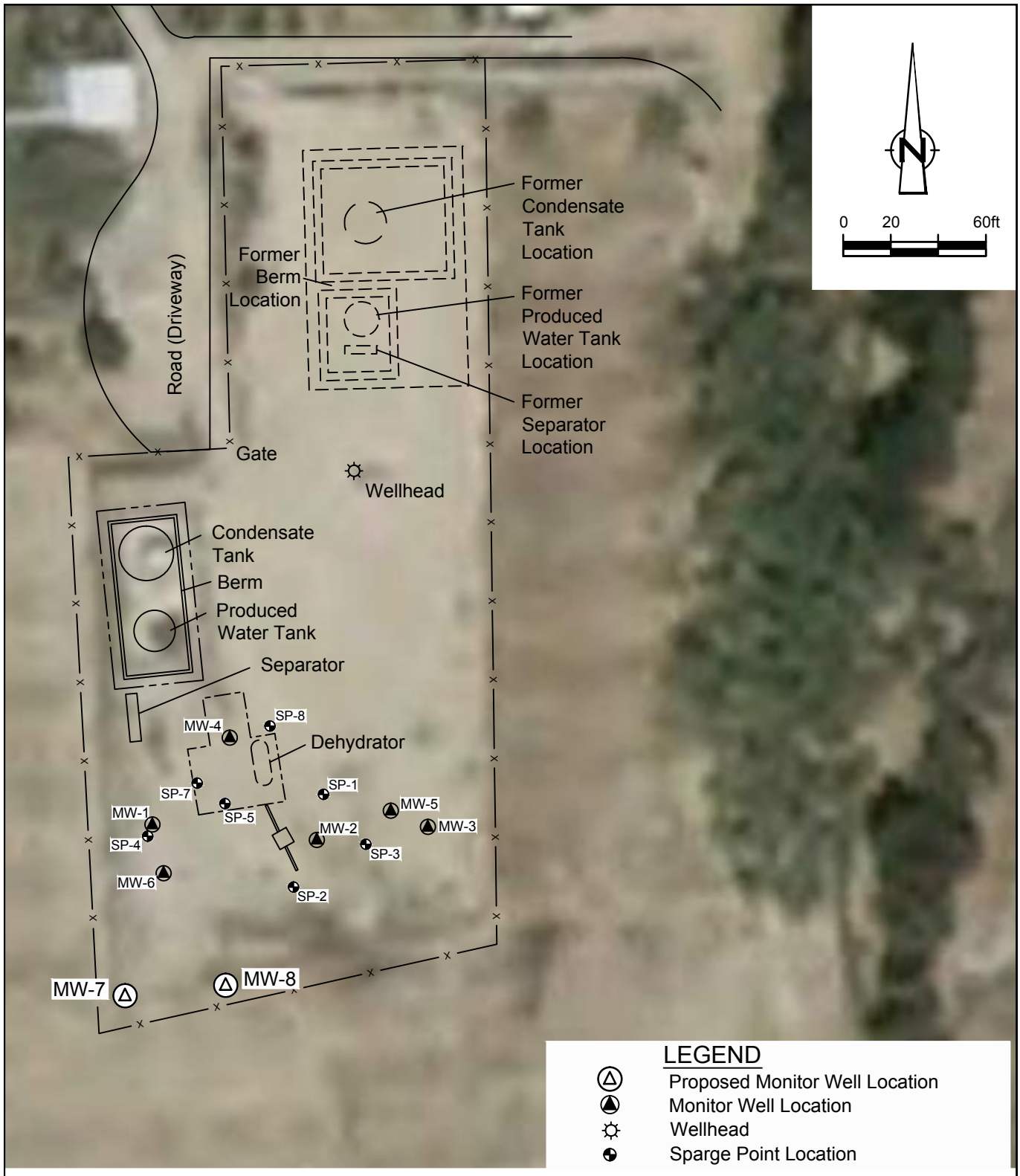


Figure 12

DECEMBER 2014 BENZENE CONCENTRATION MAP
NELL HALL No. 1 NATURAL GAS WELL SITE
SECTION 07, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

Figure 13
Graph of Benzene Concentrations and Groundwater Elevations in MW-6
ConocoPhillips Company Nell Hall No. 1 Site





ConocoPhillips high resolution aerial imagery 2008.

Figure 14

PROPOSED MONITOR WELL LOCATION MAP
NELL HALL NO. 1 NATURAL GAS WELL SITE
SECTION 07, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

074941-95(006)GN-DL004 JAN 19/2015

Tables

TABLE 1

SITE HISTORY TIMELINE
CONOCO PHILLIPS COMPANY
NELL HALL NO. 1
SAN JUAN COUNTY, NEW MEXICO

Date/Time Period	*Event/Action*	*Description/Comments*
February 20, 1961	Well Spudded	Southwest Production Company spudded the Nell Hall No. 1 natural gas production well.
September 1, 1963	Operator Change	Beta Development Company acquired the Nell Hall No. 1 site from Southwest Production Company.
September 15, 1988	Operator Change	Mesa Operating Limited Partnership acquired the Nell Hall No. 1 site from Beta Development Company.
July 1, 1991	Operator Change	Conoco Inc. acquired the Nell Hall No. 1 from Mesa Operating Limited Partnership.
May 3, 1994	Pit Remediation	Conoco stopped flow to the dehydrator, sampled the soil in the unlined dehydrator pit and encountered hydrocarbon-impacted soil.
August 31 through September 1, 1994	Pit Remediation	Conoco removed the dehydrator and Flint Engineering & Construction Co. excavated soil in the vicinity of the former dehydrator pit to a depth of 16 feet. A soil sample at the bottom of the excavation revealed TPH of 380 ppm.
September 21 through October 7, 1994	Pit Remediation	Flint Engineering & Construction Co. landfarmed the excavated soil on site.
June 1 and 2, 1995	Soil Borings and Groundwater Sampling	Phillip Environmental Services Corp. completed initial subsurface assesment (3 temporary monitoring wells and 3 additional borings).
June 15, 1995	Soil Borings and Groundwater Sampling	Phillip Environmental Services Corp. completed an additional soil boring.
March 27, 1997	Monitoring Well Sampling	On Site Technologies, LTD found insufficient water in the 3 monitoring wells for sampling.
June 19, 2002	Groundwater sampling	Souder Miller and Associates (SMA) conducted groundwater sampling at the Site. Samples were collected from MW-1, and sparge points SP-6, SP-7 and SP-8. The only constituent over the NMWQCC standard was benzene in SP-7 at a concentration of 0.018 milligrams per liter (mg/L).
September 17, 2002	Groundwater sampling	SMA conducted groundwater sampling at the Site. Samples were collected from MW-1, and sparge points SP-6, SP-7 and SP-8. The only constituent over the NMWQCC standard was benzene in SP-7 at a concentration of 0.021 mg/L.
January 1, 2003	Operator Name Change	Conoco Inc. and Phillips Petroleum Company merged to form ConocoPhillips Company.
February 17 and 18, 2004	Monitoring Well Installation	Monitoring Wells MW-4, MW-5, and MW-6 were installed at deeper depths (35 to 39 feet BGS) to adequately intersect the water table, since previously installed groundwater Monitoringing wells continually went dry. The lowest water levels at the site are found to occur in early spring and late winter. 30 to 35 feet of screen was installed in each well to allow for seasonal groundwater fluctuations of up to 25 feet.
March 8 through December 27, 2004	Monitoring Well Sampling	Quarterly groundwater sampling of Monitoring Wells MW-4, MW-5, and MW-6; benzene spike in March (MW-6) coincides with MW-6 well installation and discovery of BTEX and TPH impacts to soil at 25-35 feet bgs in MW-6 soil samples collected during drilling.
May 11 through November 22, 2005	Monitoring Well Sampling	Semi-annual sampling of Monitoring Wells MW-4, MW-5, and MW-6.
November 15, 2006	Monitoring Well Sampling	Annual sampling of Monitoring Wells MW-4, MW-5, and MW-6.
February 21, 2007 through October 22, 2008	Monitoring Well Sampling	Resumption of semi-annual sampling of Monitoring Wells MW-4, MW-5, and MW-6 during summer and fall months when water is most likely to be present in wells.
February 6, 2009	BTEX vs. depth to water plotted for MW-6	BTEX concentrations show inverse relationship to water column thickness in MW-6; plotted from 2/21/07 to 10/22/08.
March 30, 2009	Monitoring Well Sampling	Groundwater samples collected from MW-5 and MW-6; no sample was collected from MW-4 (dry). Benzene result of 0.042 milligrams per liter (mg/L) for MW-6.
March 30, 2009	Monitoring Well Sampling	Monitoring Wells MW-5 and MW-6 were sampled. MW-4 was found to be dry during the sampling event. Benzene was reported at a concentration above the groundwater quality standard in MW-6 with a concentration of 0.042 mg/L.
September 30, 2009	Monitoring Well Sampling	Groundwater samples were collected from MW-4, MW-5 and MW-6. MW-6 indicated a benzene concentration of 0.096 mg/L and a dissolved iron concentration of 1.06 mg/L.
March 31 and April 1, 2010	Monitoring Well Sampling	Groundwater samples collected from MW-5 and MW-6; MW-4 was dry. MW-6 indicated a benzene concentration of 0.480 mg/L and a sample for dissolved iron was not obtained due to low water levels in MW-6.
June 9, 2010	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6 as a continuation of semi-annual sampling event. MW-6 indicated a benzene concentration of 0.710 mg/L and a dissolved iron concentration of 11.4 mg/L.
September 27, 2010	MonitoringWell Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. MW-6 indicated a benzene concentration of 0.30 mg/L and a dissolved iron concentration of 0.676 mg/L.

TABLE 1

SITE HISTORY TIMELINE
CONOCO PHILLIPS COMPANY
NELL HALL NO. 1
SAN JUAN COUNTY, NEW MEXICO

Date/Time Period	*Event/Action*	*Description/Comments*
March 16, 2011	Monitoring Well Sampling	Groundwater samples collected from MW-5 and MW-6. MW-4 was observed to be dry during this monitoring event. Laboratory analysis of the groundwater sample from MW-6 indicated a benzene concentration of 0.18 mg/L and a dissolved iron concentration of 8.66 mg/L; however, during the March 2011 sampling event MW-6 contained a very low volume of water and the sample collected may not be representative of actual aquifer conditions.
June 15, 2011	Transfer of Consulting Responsibilities to CRA	On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech of Albuquerque, NM to CRA of Albuquerque, NM.
June 21, 2011	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.461 mg/L, a xylenes concentration of 0.677 mg/L, and a dissolved iron concentration of 9.45 mg/L.
September 27, 2011	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.237 mg/L, and a dissolved iron concentration of 19.6 mg/L.
December 13, 2011	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.298 mg/L, and a dissolved iron concentration of 11.6 mg/L.
March 7, 2012	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.0477 mg/L, and a dissolved iron concentration of 22.50 mg/L.
June 4, 2012	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.649 mg/L, and a dissolved iron concentration of 19.2 mg/L. The sample from MW-4 indicated a dissolved iron concentration of 1.17 mg/L.
September 20, 2012	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.266 mg/L, and a dissolved iron concentration of 9.53 mg/L.
December 28, 2012	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.319 mg/L, and a dissolved iron concentration of 8.06 mg/L.
March 28, 2013	Groundwater Monitoring	All site wells gauged were dry; no samples collected.
June 12, 2013	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.442 mg/L, and a dissolved iron concentration of 16.6 mg/L. Groundwater sampled from MW-4 indicated a dissolved iron concentration of 1.46 mg/L.
September 11, 2013	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.442 mg/L, and a dissolved iron concentration of 16.6 mg/L. Groundwater sampled from MW-4 indicated a dissolved iron concentration of 1.46 mg/L.
December 13, 2013	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.442 mg/L, and a dissolved iron concentration of 16.6 mg/L. Groundwater sampled from MW-4 indicated a dissolved iron concentration of 1.46 mg/L.
March 20 - 21, 2014	Monitoring Well Sampling	Groundwater samples collected from MW-5. Analytical results for BTEX and dissolved iron were below laboratory detection limits. MW-4 and MW-6 were dry during this sampling event.
June 18, 2014	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.384 mg/L, and a dissolved iron concentration of 15.5 mg/L. Groundwater sampled from MW-4 indicated a dissolved iron concentration of 1.83 mg/L.
September 15, 2014	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.502 mg/L, and a dissolved iron concentration of 7.75 mg/L.
December 15, 2014	Monitoring Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. Groundwater sampled from MW-6 indicated a benzene concentration of 0.333 mg/L, and a dissolved iron concentration of 5.45 mg/L.

TABLE 2

MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
CONOCOPHILLIPS COMPANY
NELL HALL NO. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	*Total Depth (ft below TOC)*	*Surface Elevation (amsl)*	*Screen Interval (ft bgs)*	*Date Measured*	*Depth to Groundwater (ft below TOC)*	*Relative Water Level*
MW-1	28.55	5615.72	Unknown	5/10/2005	DRY	NA
				10/20/2005	19.25	5596.47
				11/22/2005	24.15	5591.57
				5/17/2006	NM	NM
				11/15/2006	21.40	5594.32
				2/19/2007	DRY	NA
				5/14/2007	24.85	5590.87
				8/22/2007	24.61	5591.11
				11/6/2007	20.87	5594.85
				3/17/2008	DRY	NA
				10/22/2008	19.38	5596.34
				3/30/2009	28.25	5587.47
				9/30/2009	16.56	5599.16
				3/31/2010	DRY	NA
				6/9/2010	24.16	5591.56
		97.95		9/27/2010	20.00	77.95
				3/16/2011	DRY	NA
				6/21/2011	26.80	71.15
				9/27/2011	17.85	80.10
				12/13/2011	25.39	72.56
				3/7/2012	DRY	NA
				6/4/2012	26.40	71.55
				9/20/2012	17.57	80.38
				12/28/2012	DRY	NA
				3/28/2013	DRY	NA
				6/12/2013	24.33	73.62
				9/11/2013	17.59	80.36
				12/13/2013	27.45	70.50
				3/20/2014	DRY	NA
				6/18/2014	25.18	72.77
				9/15/2014	18.68	79.27
				12/15/2014	DRY	NA
MW-2	27.32	5614.94	Unknown	5/10/2005	DRY	NA
				10/20/2005	18.81	5596.13
				11/22/2005	23.74	5591.20
				5/17/2006	22.06	5592.88
				11/15/2006	21.01	5593.93
				2/19/2007	DRY	NA
				5/14/2007	DRY	NA
				8/22/2007	18.03	5596.91
				11/6/2007	20.43	5594.51
				3/17/2008	DRY	NA
				10/22/2008	18.83	5596.11
				3/30/2009	27.15	5587.79
				9/30/2009	16.01	5598.93
				3/31/2010	DRY	NA
				6/9/2010	23.36	5591.58
		97.16		9/27/2010	19.42	77.74
				3/16/2011	DRY	NA
				6/21/2011	26.43	70.73
				9/27/2011	17.28	79.88
				12/13/2011	25.10	72.06
				3/7/2012	DRY	NA
				6/4/2012	25.17	71.99
				9/20/2012	17.30	79.86
				12/28/2012	DRY	NA
				3/28/2013	DRY	NA
				6/12/2013	23.78	73.38
				9/11/2013	17.22	79.94
				12/13/2013	27.00	70.16
				3/20/2014	DRY	NA
				6/18/2014	24.78	72.38
				9/15/2014	18.18	78.98
				12/15/2014	DRY	NA

TABLE 2

MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
CONOCOPHILLIPS COMPANY
NELL HALL NO. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	*Total Depth (ft below TOC)*	*Surface Elevation (amsl)*	*Screen Interval (ft bgs)*	*Date Measured*	*Depth to Groundwater (ft below TOC)*	*Relative Water Level*
MW-3	27.45	5615.53	Unknown	5/10/2005	DRY	NA
				10/20/2005	19.36	5596.17
				11/22/2005	24.24	5591.29
				5/17/2006	22.82	5592.71
				11/15/2006	21.53	5594.00
				2/19/2007	DRY	NA
				5/14/2007	DRY	NA
				8/22/2007	18.36	5597.17
				11/6/2007	20.95	5594.58
				3/17/2008	DRY	NA
				10/22/2008	19.34	5596.19
				3/30/2009	DRY	NA
				9/30/2009	NM	NM
				3/31/2010	DRY	NA
				6/9/2010	23.87	5591.66
		97.77		9/27/2010	19.93	77.84
				3/16/2011	DRY	NA
				6/21/2011	27.06	70.71
				9/27/2011	17.82	79.95
				12/13/2011	25.66	72.11
				3/7/2012	DRY	NA
				6/4/2012	25.53	72.24
				9/20/2012	17.97	79.80
				12/28/2012	DRY	NA
				3/28/2013	DRY	NA
				6/12/2013	24.36	73.41
				9/11/2013	17.84	79.93
				12/13/2013	DRY	NA
				3/20/2014	DRY	DRY
				6/18/2014	25.36	72.41
				9/15/2014	18.79	78.98
				12/15/2014	DRY	NA
MW-4	37.57	5614.87	7.57 - 37.57	3/8/2004	36.04	5578.83
				7/19/2004	8.44	5606.43
				10/27/2004	19.69	5595.18
				12/27/2004	27.58	5587.29
				5/10/2005	DRY	NA
				10/20/2005	18.87	5596.00
				11/22/2005	23.93	5590.94
				5/17/2006	NM	NM
				11/15/2006	21.02	5593.85
				2/19/2007	34.40	5580.47
				5/14/2007	27.56	5587.31
				8/22/2007	18.18	5596.69
				11/6/2007	20.48	5594.39
				3/17/2008	36.08	5578.79
				10/22/2008	18.96	5595.91
				3/30/2009	37.36	5577.51
				9/30/2009	16.15	5598.72
				3/31/2010	DRY	NA
				6/9/2010	23.61	5591.26
		97.75		9/27/2010	19.61	78.14
				3/16/2011	DRY	NA
				6/21/2011	26.79	70.96
				9/27/2011	17.47	80.28
				12/13/2011	25.35	72.40
				3/7/2012	35.73	62.02
				6/4/2012	25.39	72.36
				9/20/2012	17.43	80.32
				12/28/2012	28.02	69.73
				3/28/2013	DRY	NA
				6/12/2013	24.06	73.69
				9/11/2013	17.40	80.35
				12/13/2013	27.90	69.85
				3/20/2014	DRY	DRY
				6/18/2014	25.10	72.65
				9/15/2014	18.43	79.32
				12/15/2014	28.01	69.74

TABLE 2

MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
CONOCOPHILLIPS COMPANY
NELL HALL NO. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	*Total Depth (ft below TOC)*	*Surface Elevation (amsl)*	*Screen Interval (ft bgs)*	*Date Measured*	*Depth to Groundwater (ft below TOC)*	*Relative Water Level*
MW-5	42.7	5615.86	7.7 - 42.7	3/8/2004	37.19	5578.67
				7/19/2004	9.38	5606.48
				10/27/2004	21.07	5594.79
				12/27/2004	28.99	5586.87
				5/10/2005	39.79	5576.07
				10/20/2005	20.34	5595.52
				11/22/2005	25.23	5590.63
				5/17/2006	23.80	5592.06
				11/15/2006	22.51	5593.35
				2/19/2007	35.31	5580.55
				5/14/2007	27.59	5588.27
				8/22/2007	19.45	5596.41
				11/6/2007	21.94	5593.92
				3/17/2008	37.33	5578.53
				10/22/2008	19.30	5596.56
				3/30/2009	38.68	5577.18
				9/30/2009	17.54	5598.32
				3/31/2010	39.05	5576.81
				6/9/2010	24.91	5590.95
		98.81		9/27/2010	20.92	77.89
				3/16/2011	39.25	59.56
				6/21/2011	28.02	70.79
				9/27/2011	18.79	80.02
				12/13/2011	26.62	72.19
				3/7/2012	37.00	61.81
				6/4/2012	26.57	72.24
				9/20/2012	18.92	79.89
				12/28/2012	29.37	69.44
				3/28/2013	DRY	NA
				6/12/2013	25.39	73.42
				9/11/2013	18.84	79.97
				12/13/2013	29.20	69.61
				3/20/2014	39.83	58.98
				6/18/2014	26.35	72.46
				9/15/2014	19.76	79.05
				12/15/2014	29.37	69.44
MW-6	38.21	5615.44	8.21 - 38.21	3/8/2004	36.27	5579.17
				7/19/2004	9.43	5606.01
				10/27/2004	19.33	5596.11
				12/27/2004	28.62	5586.82
				5/10/2005	DRY	NA
				10/20/2005	19.94	5595.50
				11/22/2005	25.02	5590.42
				5/17/2006	NM	NM
				11/15/2006	21.12	5594.32
				2/19/2007	34.82	5580.62
				5/14/2007	26.12	5589.32
				8/22/2007	19.41	5596.03
				11/6/2007	21.51	5593.93
				3/17/2008	36.34	5579.10
				10/22/2008	19.99	5595.45
				3/30/2009	37.04	5578.40
				9/30/2009	17.26	5598.18
				3/31/2010	37.24	5578.20
				6/9/2010	24.43	5591.01
		98.41		9/27/2010	20.79	77.62
				3/16/2011	DRY	NA
				6/21/2011	27.56	70.85
				9/27/2011	18.58	79.83
				12/13/2011	26.32	72.09
				3/7/2012	36.01	62.40
				6/4/2012	26.55	71.86
				9/20/2012	18.25	80.16
				12/28/2012	29.11	69.30
				3/28/2013	DRY	NA
				6/12/2013	24.78	73.63
				9/11/2013	18.26	80.15
				12/13/2013	28.84	69.57
				3/20/2014	37.47	60.94
				6/18/2014	25.93	72.48
				9/15/2014	19.35	79.06
				12/15/2014	29.02	69.39

Notes:

amsl = Above mean sea level
bgs = Below ground surface
ft = Feet
NM = Not measured
NA = Not available
TOC = Top of casing
* = Top of casing elevation based on an arbitrary reference elevation of 100 feet

TABLE 3

FIELD PARAMETERS SUMMARY
CONOCOPHILLIPS COMPANY
NELL HALL NO. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample Date	Temperature (°C)	pH	TDS (g/L)	Conductivity (µS/cm)	DO (mg/L)	ORP (mV)	Volume (gallons)
MW-4	3/20/2014	No parameters collected due to low well volume.						
	6/18/2014	16.15	6.37	0.709	1091	3.87	-177.6	5.00
	6/18/2014	15.83	6.45	0.653	1004	3.22	-186.2	5.50
	6/18/2014	15.66	6.50	0.634	976	2.88	-185.6	6.00
	9/15/2014	18.40	7.17	0.53	830	10.65	75.0	8.50
	9/15/2014	18.50	7.14	0.53	826	10.25	73.0	8.75
	9/15/2014	18.50	7.11	0.52	820	9.97	67.0	9.00
	12/15/2014	15.83	7.22	1.660	2554	2.84	-56.7	3.75
	12/15/2014	15.99	7.21	1.658	2551	2.19	-67.8	4.25
	12/15/2014	16.05	7.21	1.657	2550	1.99	-77.9	4.75
MW-5	3/20/2014	16.30	6.20	0.719	1108	3.74	-106.2	0.50
	3/20/2014	16.22	6.32	0.709	1092	3.73	-112.6	1.00
	6/18/2014	15.09	6.78	0.646	993	9.84	-74.8	7.00
	6/18/2014	15.10	6.78	0.642	988	9.15	-73.9	7.50
	6/18/2014	15.08	6.80	0.641	987	9.03	-74.2	8.00
	9/15/2014	17.90	7.10	0.58	908	10.74	104.0	10.25
	9/15/2014	17.30	7.09	0.58	912	10.92	104.0	10.50
	9/15/2014	17.10	7.08	0.58	909	10.89	105.0	11.25
	12/15/2014	16.43	7.31	1.757	2694	7.90	85.1	5.50
	12/15/2014	16.32	7.29	1.767	2718	7.87	86.5	6.00
	12/15/2014	16.34	7.29	1.757	2703	7.92	87.7	6.50
MW-6	3/20/2014	No parameters collected due to low well volume.						
	6/18/2014	15.41	6.44	0.790	1213	4.01	-144.0	5.00
	6/18/2014	15.18	6.39	0.757	1164	2.85	-145.0	5.50
	6/18/2014	15.17	6.38	0.748	1151	2.33	-145.3	6.00
	9/15/2014	17.00	6.77	1.00	1510	7.40	-180.0	7.75
	9/15/2014	17.10	6.77	1.00	1530	7.24	-180.0	8.25
	9/15/2014	17.10	6.77	1.00	1540	7.06	-179.0	9.25
	12/15/2014	15.17	6.95	1.981	3048	2.31	-118.9	3.50
	12/15/2014	15.72	6.97	2.010	3090	2.11	-134.4	4.00
	12/15/2014	15.81	7.00	1.985	3054	2.45	-133.6	4.50

Notes:
TDS = total dissolved solids
DO = dissolved oxygen
ORP = oxidation-reduction potential

TABLE 4

GROUNDWATER ANALYTICAL RESULTS SUMMARY
CONOCOPHILLIPS COMPANY
NELL HALL NO. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	Sample ID	Date	Sample Type	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	Sulfate (mg/L)	Iron (dissolved) (mg/L)	Nitrate (as N) (mg/L)
NMWQCC Groundwater Quality Standards				***0.01***	***0.75***	***0.75***	***0.62***	***600***	***1***	***10***
MW-4	MW-4	3/8/2004	(orig)	**0.013**	0.012	0.064	**1.4**	--	--	--
	MW-4	7/19/2004	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.0005	--	--	--
	MW-4	10/27/2004	(orig)	**0.011**	0.008	0.021	0.13	--	--	--
	MW-4	12/27/2004	(orig)	< 0.0025	< 0.0025	< 0.0025	< 0.0005	--	--	--
	MW-4	11/22/2005	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	105	--	< 0.40
	MW-4	11/15/2006	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	110	--	< 0.25
	MW-4	2/21/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	59.6	--	< 0.25
	MW-4	8/22/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	96.5	--	< 0.25
	MW-4	11/6/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	111	--	3.3
	MW-4	3/17/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	64.5	--	< 0.5
	MW-4	10/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	93.8	--	1.9
	MW-4	9/30/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.02	--
	MW-4	6/9/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.02	--
	MW-4	9/27/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.02	--
	GW-74941-062111-CMB-001	6/21/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	**1.21**	--
	GW-074941-092711-CM-007	9/27/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.05	--
	GW-074941-121311-CB-MW-4	12/13/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	0.201	--
	GW-074941-3712-CB-MW-4	3/7/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.25	--
	GW-074941-3712-CB-DUP	3/7/2012	(Duplicate)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--
	GW-074941-060412-CB-MW-4	6/4/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	**1.17**	--
	GW-074941-092012-JP-MW-4	9/20/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.25	--
	GW-074941-122812-JMK-MW4	12/28/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	0.748	--
	GW-074941-122812-JMK-DUP	12/28/2012	(Duplicate)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--
	074941-061213-JK-MW4	6/12/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	**1.46**	--
	074941-061213-JK-DUP	6/12/2013	(Duplicate)	< 0.001	< 0.001	< 0.001	< 0.003	--	**--**	--
	GW-074941-091113-CM-MW-4	9/11/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	<0.050	--
	GW-074941-122323-CM-MW4	12/13/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	0.758	--
	GW-074941-061814-CK-MW-4	6/18/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	**1.83**	--
	GW-074941-091514-CB-MW-4	9/15/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	0.0544	--
	GW-074941-121514-CM-MW-4	12/15/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	0.456	--
MW-5	MW-5	3/8/2004	(orig)	0.0011	< 0.0005	0.001	0.017	--	--	--
	MW-5	7/19/2004	(orig)	< 0.0005	0.00055	< 0.0005	0.00072	--	--	--
	MW-5	10/27/2004	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001	--	--	--
	MW-5	12/27/2004	(orig)	< 0.0005	< 0.0005	< 0.0005	< 0.001	--	--	--
	MW-5	5/11/2005	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	139	--	2.3
	MW-5	11/22/2005	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	38	--	< 0.40
	MW-5	11/15/2006	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	77.9	--	2.3
	MW-5	2/21/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	83.3	--	1.3
	MW-5	8/22/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	125	--	5.6
	MW-5	11/6/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	59	--	4
	MW-5	3/17/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	69.7	--	0.986
	MW-5	10/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	105	--	0.532
	MW-5	3/30/2009	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	--	--	--
	MW-5	9/30/2009	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.02	--
	MW-5	3/31/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.02	--
	MW-5	6/9/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.02	--
	MW-5	9/27/2010	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.02	--
	MW-5	3/16/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.001	--	< 0.02	--
	GW-74941-062111-CMB-002	6/21/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.1	--
	GW-074941-092711-CM-005	9/27/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	0.0835	--
	GW-074941-121311-CB-MW-5	12/13/2011	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.05	--
	GW-074941-3712-CB-MW-5	3/7/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.05	--
	GW-074941-060412-CB-MW-5	6/4/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.05	--
	GW-074941-092012-JP-MW-5	9/20/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.05	--
	GW-074941-122812-JMK-MW5	12/28/2012	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.05	--
	074941-061213-JK-MW5	6/12/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.05	--
	GW-074941-091113-CM-MW-5	9/11/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	0.0723	--
	GW-074941-122323-CM-MW5	12/13/2013	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	0.0760	--
	GW-074941-032114-CK-MW-5	3/21/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.05	--
	GW-074941-032114-CK-DUP	3/21/2014	(Duplicate)	< 0.001	< 0.001	< 0.001	< 0.003	--	--	--
	GW-074941-061814-CK-MW-5	6/18/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.05	--
	GW-074941-091514-CB-MW-5	9/15/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.05	--
	GW-074941-121514-CM-MW-5	12/15/2014	(orig)	< 0.001	< 0.001	< 0.001	< 0.003	--	< 0.05	

TABLE 4

GROUNDWATER ANALYTICAL RESULTS SUMMARY
CONOCOPHILLIPS COMPANY
NELL HALL NO. 1
SAN JUAN COUNTY, NEW MEXICO

Well ID	*Sample ID*	*Date*	*Sample Type*	*Benzene (mg/L)*	*Toluene (mg/L)*	*Ethylbenzene (mg/L)*	*Xylenes (total) (mg/L)*	*Sulfate (mg/L)*	*Iron (dissolved) (mg/L)*	*Nitrate (as N) (mg/L)*
MW-6	MW-6	3/8/2004	(orig)	**2.5**	0.014	**1.6**	**21.031**	--	--	--
	MW-6	7/19/2004	(orig)	< 0.0005	< 0.0005	0.00098	0.0026	--	--	--
	MW-6	10/27/2004	(orig)	0.0004	0.0003	0.0005	0.0021	--	--	--
	MW-6	12/27/2004	(orig)	**0.045**	0.0068	0.014	0.0717	--	--	--
	MW-6	11/22/2005	(orig)	**0.01**	0.0007	0.016	0.15	3.4	--	< 0.40
	MW-6	11/15/2006	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	41.3	--	< 0.25
	MW-6	2/21/2007	(orig)	**0.54**	< 0.001	0.076	**0.81**	1.8	--	< 0.25
	MW-6	8/22/2007	(orig)	< 0.0005	< 0.0007	< 0.0008	< 0.0008	12.6	--	< 0.25
	MW-6	11/6/2007	(orig)	**0.015**	< 0.0007	0.047	0.39	5.6	--	< 0.25
	MW-6	3/18/2008	(orig)	**0.16**	< 0.005	< 0.005	0.033	--	--	--
	MW-6	10/22/2008	(orig)	< 0.005	< 0.005	< 0.005	< 0.005	5.15	--	< 1.0
	MW-6	3/30/2009	(orig)	**0.042**	< 0.005	< 0.005	0.01	--	--	--
	MW-6	9/30/2009	(orig)	**0.096**	0.0047	0.062	0.12	--	**1.06**	--
	MW-6	4/1/2010	(orig)	**0.48**	< 0.001	0.078	0.2	--	--	--
	MW-6	6/9/2010	(orig)	**0.71**	< 0.001	0.42	0.52	--	**11.4**	--
	MW-6	9/27/2010	(orig)	**0.3**	< 0.001	0.25	0.41	--	0.676	--
	MW-6	3/16/2011	(orig)	**0.18**	< 0.001	0.044	0.072	--	**8.66**	--
	GW-74941-062111-CMB-003	6/21/2011	(orig)	**0.461**	0.00048	0.454	**0.677**	--	**9.45**	--
	GW-74941-062111-CMB-DUP	6/21/2011	(Duplicate)	**0.383**	0.00057	0.407	0.607	--	--	--
	GW-074941-092711-CM-006	9/27/2011	(orig)	**0.237**	< 0.005	0.197	0.225	--	**19.6**	--
	GW-074941-092711-CM-008	9/27/2011	(Duplicate)	**0.249**	< 0.005	0.216	0.248	--	--	--
	GW-074941-121311-CB-MW-6	12/13/2011	(orig)	**0.298**	0.0083	0.154	0.141	--	**11.6**	--
	GW-074941-121311-CB-DUP	12/13/2011	(Duplicate)	**0.359**	0.0061	0.19	0.183	--	--	--
	GW-074941-3712-CB-MW-6	3/7/2012	(orig)	**0.0477**	< 0.001	0.0073	0.0192	--	**22.5**	--
	GW-074941-060412-CB-MW-6	6/4/2012	(orig)	**0.649**	< 0.01	0.309	0.314	--	**19.2**	--
	GW-074941-060412-CB-DUP	6/4/2012	(Duplicate)	**0.62**	< 0.01	0.267	0.266	--	--	--
	GW-074941-092012-JP-MW-6	9/20/2012	(orig)	**0.266**	< 0.005	0.065	0.0355	--	**9.53**	--
	GW-074941-092012-JP-DUP	9/20/2012	(Duplicate)	**0.282**	< 0.005	0.0634	0.0348	--	--	--
	GW-074941-122812-JMK-MW6	12/28/2012	(orig)	**0.319**	< 0.005	0.0764	0.0452	--	**8.06**	--
	074941-061213-JK-MW6	6/12/2013	(orig)	**0.442**	< 0.005	0.159	0.209	--	**16.6**	--
	GW-074941-091113-CM-MW-6	9/11/2013	(orig)	**0.109**	< 0.001	0.0208	0.0123	--	**2.260**	--
	GW-074941-091113-CM-DUP	9/11/2013	(Duplicate)	**0.0937**	< 0.001	0.0191	0.0114	--	--	--
	GW-074941-122323-CM-MW6	12/13/2013	(orig)	**0.467**	< 0.001	0.101	0.0537	--	**5.900**	--
	GW-074941-122323-CM-DUP	12/13/2013	(Duplicate)	**0.456**	< 0.001	0.0777	0.0491	--	--	--
	GW-074941-061814-CK-MW-6	6/18/2014	(orig)	**0.384**	< 0.005	0.152	0.177	--	**15.5**	--
	GW-074941-061814-CK-DUP	6/18/2014	(Duplicate)	**0.402**	< 0.005	0.153	0.173	--	--	--
	GW-074941-091514-CB-MW-6	9/15/2014	(orig)	**0.502**	< 0.001	0.101	0.064	--	**7.75**	--
	GW-074941-091514-CB-DUP	9/15/2014	(Duplicate)	**0.182**	< 0.001	0.0638	0.0354	--	--	--
	GW-074941-121514-CM-MW-6	12/15/2014	(orig)	**0.333**	< 0.001	0.0758	0.0249	--	**5.45**	--
	GW-074941-121514-CM-DUP	12/15/2014	(Duplicate)	**0.314**	< 0.001	0.0502	0.0169	--	--	--

Explanation

mg/L = milligrams per liter (parts per million)

-- = Not Analyzed

NMWQCC = New Mexico Water Quality Control Commission

Appendix A

Groundwater Laboratory Analytical Reports

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

April 07, 2014

Jeff Walker
COP Conestoga-Rovers & Associa
6121 Indian School Rd. NE
Ste 200
Albuquerque, NM 87110

RE: Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

Dear Jeff Walker:
Enclosed are the analytical results for sample(s) received by the laboratory on March 22, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, COP Conestoga-Rovers & Associa
Christine Matthews, CRA

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-13-4
Utah Certification #: KS000212013-3
Illinois Certification #: 003097

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60165505001	**GW-074941-032114-CK-MW-5**	Water	03/21/14 07:55	03/22/14 09:00
60165505002	**GW-074941-032114-CK-DUP**	Water	03/21/14 08:00	03/22/14 09:00
60165505003	**TB-074941-032114-CK-1**	Water	03/21/14 00:00	03/22/14 09:00

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60165505001	**GW-074941-032114-CK-MW-5**	EPA 6010	JGP	1
		EPA 8260	EAK, JTS	8
60165505002	**GW-074941-032114-CK-DUP**	EPA 8260	JTS	8
60165505003	**TB-074941-032114-CK-1**	EPA 8260	EAK	8

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: April 07, 2014

General Information:
1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

Method: **EPA 8260**
Description: 8260 MSV UST, Water
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: April 07, 2014

General Information:
3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

QC Batch: MSV/60473

IS: The internal standard response is below criteria. Results may be biased high.

- TB-074941-032114-CK-1 (Lab ID: 60165505003)
  - Toluene

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/60408

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/60409

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/60444

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/60473

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

Method: **EPA 8260**
Description: 8260 MSV UST, Water
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: April 07, 2014

Analyte Comments:

QC Batch: MSV/60473

P2: Re-extraction or re-analysis could not be performed due to insufficient sample amount.

- TB-074941-032114-CK-1 (Lab ID: 60165505003)
  - Toluene

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

Sample: GW-074941-032114-CK-MW-5 **Lab ID: 60165505001** Collected: 03/21/14 07:55 Received: 03/22/14 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	ND	ug/L	50.0	1	03/28/14 11:00	04/01/14 17:19	7439-89-6	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		03/29/14 08:06	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		03/29/14 08:06	100-41-4	
Toluene	ND	ug/L	1.0	1		03/31/14 20:39	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		03/29/14 08:06	1330-20-7	
Surrogates								
Toluene-d8 (S)	93	%	80-120	1		03/29/14 08:06	2037-26-5	
4-Bromofluorobenzene (S)	93	%	80-120	1		03/29/14 08:06	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	80-120	1		03/29/14 08:06	17060-07-0	
Preservation pH	**1.0**		1.0	1		03/29/14 08:06		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

Sample: GW-074941-032114-CK-DUP **Lab ID: 60165505002** Collected: 03/21/14 08:00 Received: 03/22/14 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		03/31/14 20:55	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		03/31/14 20:55	100-41-4	
Toluene	ND	ug/L	1.0	1		03/31/14 20:55	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		03/31/14 20:55	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	80-120	1		03/31/14 20:55	2037-26-5	
4-Bromofluorobenzene (S)	100	%	80-120	1		03/31/14 20:55	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	80-120	1		03/31/14 20:55	17060-07-0	
Preservation pH	**1.0**		1.0	1		03/31/14 20:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

Sample: TB-074941-032114-CK-1 **Lab ID: 60165505003** Collected: 03/21/14 00:00 Received: 03/22/14 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		03/28/14 21:55	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		03/28/14 21:55	100-41-4	
Toluene	ND	ug/L	1.0	1		04/01/14 16:13	108-88-3	IS,P2
Xylene (Total)	ND	ug/L	3.0	1		03/28/14 21:55	1330-20-7	
Surrogates								
Toluene-d8 (S)	92	%	80-120	1		03/28/14 21:55	2037-26-5	
4-Bromofluorobenzene (S)	93	%	80-120	1		03/28/14 21:55	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	80-120	1		03/28/14 21:55	17060-07-0	
Preservation pH	**1.0**		1.0	1		03/28/14 21:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

QC Batch: MPRP/26638
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60165505001

METHOD BLANK: 1351484 Matrix: Water
Associated Lab Samples: 60165505001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	ND	50.0	04/01/14 15:36	

LABORATORY CONTROL SAMPLE: 1351485

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	10000	10800	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1351486 1351487

Parameter	Units	60165424001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	ND	10000	10000	9890	9740	98	96	75-125	2	20	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

QC Batch: MSV/60408
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60165505001

METHOD BLANK: 1351946
Matrix: Water
Associated Lab Samples: 60165505001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	03/29/14 03:08	
Ethylbenzene	ug/L	ND	1.0	03/29/14 03:08	
Xylene (Total)	ug/L	ND	3.0	03/29/14 03:08	
1,2-Dichloroethane-d4 (S)	%	98	80-120	03/29/14 03:08	
4-Bromofluorobenzene (S)	%	97	80-120	03/29/14 03:08	
Toluene-d8 (S)	%	95	80-120	03/29/14 03:08	

LABORATORY CONTROL SAMPLE: 1351947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	17.9	90	80-120	
Ethylbenzene	ug/L	20	22.0	110	80-121	
Xylene (Total)	ug/L	60	65.2	109	80-121	
1,2-Dichloroethane-d4 (S)	%			97	80-120	
4-Bromofluorobenzene (S)	%			97	80-120	
Toluene-d8 (S)	%			94	80-120	

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

QC Batch: MSV/60409
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60165505003

METHOD BLANK: 1351948
Matrix: Water
Associated Lab Samples: 60165505003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	03/28/14 21:23	
Ethylbenzene	ug/L	ND	1.0	03/28/14 21:23	
Xylene (Total)	ug/L	ND	3.0	03/28/14 21:23	
1,2-Dichloroethane-d4 (S)	%	97	80-120	03/28/14 21:23	
4-Bromofluorobenzene (S)	%	92	80-120	03/28/14 21:23	
Toluene-d8 (S)	%	94	80-120	03/28/14 21:23	

LABORATORY CONTROL SAMPLE: 1351949

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	16.5	83	80-120	
Ethylbenzene	ug/L	20	21.1	105	80-121	
Xylene (Total)	ug/L	60	62.5	104	80-121	
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			100	80-120	
Toluene-d8 (S)	%			95	80-120	

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

QC Batch: MSV/60444 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60165505001, 60165505002

METHOD BLANK: 1352934 Matrix: Water
Associated Lab Samples: 60165505001, 60165505002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	03/31/14 17:40	
Ethylbenzene	ug/L	ND	1.0	03/31/14 17:40	
Toluene	ug/L	ND	1.0	03/31/14 17:40	
Xylene (Total)	ug/L	ND	3.0	03/31/14 17:40	
1,2-Dichloroethane-d4 (S)	%	98	80-120	03/31/14 17:40	
4-Bromofluorobenzene (S)	%	99	80-120	03/31/14 17:40	
Toluene-d8 (S)	%	98	80-120	03/31/14 17:40	

LABORATORY CONTROL SAMPLE: 1352935

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.1	100	80-120	
Ethylbenzene	ug/L	20	20.5	102	80-121	
Toluene	ug/L	20	20.0	100	80-122	
Xylene (Total)	ug/L	60	61.8	103	80-121	
1,2-Dichloroethane-d4 (S)	%			99	80-120	
4-Bromofluorobenzene (S)	%			100	80-120	
Toluene-d8 (S)	%			98	80-120	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

QC Batch: MSV/60473
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60165505003

METHOD BLANK: 1353347 Matrix: Water
Associated Lab Samples: 60165505003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene	ug/L	ND	1.0	04/01/14 11:45	
1,2-Dichloroethane-d4 (S)	%	97	80-120	04/01/14 11:45	
4-Bromofluorobenzene (S)	%	95	80-120	04/01/14 11:45	
Toluene-d8 (S)	%	101	80-120	04/01/14 11:45	

LABORATORY CONTROL SAMPLE: 1353348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	19.0	95	80-122	
1,2-Dichloroethane-d4 (S)	%			98	80-120	
4-Bromofluorobenzene (S)	%			101	80-120	
Toluene-d8 (S)	%			101	80-120	

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/60408
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/60409
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/60444
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/60473
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

IS The internal standard response is below criteria. Results may be biased high.

P2 Re-extraction or re-analysis could not be performed due to insufficient sample amount.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 074941 NELL HALL NO 1
Pace Project No.: 60165505

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60165505001	**GW-074941-032114-CK-MW-5**	EPA 3010	MPRP/26638	EPA 6010	ICP/20257
60165505001	**GW-074941-032114-CK-MW-5**	EPA 8260	MSV/60408		
60165505001	**GW-074941-032114-CK-MW-5**	EPA 8260	MSV/60444		
60165505002	**GW-074941-032114-CK-DUP**	EPA 8260	MSV/60444		
60165505003	**TB-074941-032114-CK-1**	EPA 8260	MSV/60409		
60165505003	**TB-074941-032114-CK-1**	EPA 8260	MSV/60473		

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO#: 60165505

60165505

Client Name: CoP_ CRA

Optional
Proj Due Date:
Proj Name:

Courier: Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 7983 0257 7883 Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☑ None ☐ Other ☐

Thermometer Used: ~~T-239~~ / T-194 **Type of Ice:** ~~Wet~~ Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 2.4

Temperature should be above freezing to 6°C

Date and initials of person examining contents: 3/22/14 KD

Chain of Custody present:	~~☑Yes~~ ☐No ☐N/A	1.
Chain of Custody filled out:	~~☑Yes~~ ☐No ☐N/A	2.
Chain of Custody relinquished:	~~☑Yes~~ ☐No ☐N/A	3.
Sampler name & signature on COC:	~~☑Yes~~ ☐No ☐N/A	4.
Samples arrived within holding time:	~~☑Yes~~ ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ~~☑No~~ ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ~~☑No~~ ☐N/A	7.
Sufficient volume:	~~☑Yes~~ ☐No ☐N/A	8.
Correct containers used:	~~☑Yes~~ ☐No ☐N/A	
Pace containers used:	~~☑Yes~~ ☐No ☐N/A	9.
Containers intact:	~~☑Yes~~ ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ~~☑N/A~~	11.
Filtered volume received for dissolved tests?	☐Yes ☐No ~~☑N/A~~	12.
Sample labels match COC: Includes date/time/ID/analyses Matrix: WT	~~☑Yes~~ ☐No ☐N/A	13.
All containers needing preservation have been checked.	~~☑Yes~~ ☐No ☐N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	~~☑Yes~~ ☐No ☐N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	~~☑Yes~~ ☐No	Initial when completed / Lot # of added preservative
Trip Blank present: Pace Trip Blank lot # (if purchased): Covers 9	☐Yes ☐No ☐N/A	15.
Headspace in VOA vials (>6mm):	☐Yes ~~☑No~~ ☐N/A	16.
Project sampled in USDA Regulated Area:	☐Yes ☐No ~~☑N/A~~	17. List State:

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AAF Date: 3/24/14

Pace Analytical
www.pacelabs.com

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:

Company:	COP CRA NM
Address:	6121 Indian School Rd NE, Ste 200
	Albequerque, NM 87110
Email To:	cmathews@craworld.com
Phone: (505)884-0672	Fax: (505)884-4932
Requested Due Date/TAT:	standard

Section B Required Project Information:

Report To:	Christine Mathews
Copy To:	Jeff Walker, Angela Bown
Purchase Order No.:	4517898446
Project Name:	Nell Hall No.1
Project Number:	074941

Section C Invoice Information:

Attention:	ePayables
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	5514, 23

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NM

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 BTEX	6010 Dissolved Fe	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~GW-074941-032114~~																					
2	GW-074941-032114-CK-MW-5	WT	G			3/21/14	0755		4			1	3						X	X		60165505 3DHGH, BP3F5 01
3	GW-074941-032114-CK-DUP	WT	G			3/21/14	—		3				3						X			↓ 02
4	TB-074941-032114-CK-1	WT	—			—	—		3				3						X			2DHGH CTB) 03
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	CK Tew / CRA	3/21/14	1600	E Brockett / Pace	3/22/14	0900	2-4	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: CALE KANACH

SIGNATURE of SAMPLER: CK Tew

DATE Signed (MM/DD/YY): 3/21/14

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

June 26, 2014

Christine Matthews
CRA
6121 Indian School Rd NE
Suite 200
Albuquerque, NM 87110

RE: Project: NELL HALL NO 1
Pace Project No.: 60171896

Dear Christine Matthews:
Enclosed are the analytical results for sample(s) received by the laboratory on June 19, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, COP Conestoga-Rovers & Associa
Jeff Walker, COP Conestoga-Rovers & Associa

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: NELL HALL NO 1
Pace Project No.: 60171896

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-13-4
Utah Certification #: KS000212013-3
Illinois Certification #: 003097

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: NELL HALL NO 1
Pace Project No.: 60171896

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60171896001	**GW-074941-061814-CK-MW-5**	Water	06/18/14 09:10	06/19/14 08:30
60171896002	**GW-074941-061814-CK-MW-6**	Water	06/18/14 09:30	06/19/14 08:30
60171896003	**GW-074941-061814-CK-MW-4**	Water	06/18/14 09:00	06/19/14 08:30
60171896004	**GW-074941-061814-CK-DUP**	Water	06/18/14 09:30	06/19/14 08:30
60171896005	**TRIP BLANK**	Water	06/18/14 10:00	06/19/14 08:30

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: NELL HALL NO 1
Pace Project No.: 60171896

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60171896001	**GW-074941-061814-CK-MW-5**	EPA 6010	JGP	1
		EPA 8260	JTS	8
60171896002	**GW-074941-061814-CK-MW-6**	EPA 6010	JGP	1
		EPA 8260	JTS	8
60171896003	**GW-074941-061814-CK-MW-4**	EPA 6010	JGP	1
		EPA 8260	JTS	8
60171896004	**GW-074941-061814-CK-DUP**	EPA 8260	JTS	8
60171896005	**TRIP BLANK**	EPA 8260	EAK	8

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: NELL HALL NO 1
Pace Project No.: 60171896

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: June 26, 2014

General Information:
3 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: NELL HALL NO 1
Pace Project No.: 60171896

Method: **EPA 8260**
Description: 8260 MSV UST, Water
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: June 26, 2014

General Information:
5 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/62581

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/62584

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: NELL HALL NO 1
Pace Project No.: 60171896

Sample: GW-074941-061814-CK-MW-5 **Lab ID: 60171896001** Collected: 06/18/14 09:10 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	ND	ug/L	50.0	1	06/24/14 10:30	06/24/14 19:36	7439-89-6	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		06/26/14 05:58	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		06/26/14 05:58	100-41-4	
Toluene	ND	ug/L	1.0	1		06/26/14 05:58	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		06/26/14 05:58	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	80-120	1		06/26/14 05:58	2037-26-5	
4-Bromofluorobenzene (S)	97	%	80-120	1		06/26/14 05:58	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	80-120	1		06/26/14 05:58	17060-07-0	
Preservation pH	**1.0**		1.0	1		06/26/14 05:58		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: NELL HALL NO 1
Pace Project No.: 60171896

Sample: GW-074941-061814-CK-MW-6 **Lab ID: 60171896002** Collected: 06/18/14 09:30 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	**15500**	ug/L	50.0	1	06/24/14 10:30	06/24/14 19:50	7439-89-6	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	**384**	ug/L	5.0	5		06/26/14 06:15	71-43-2	
Ethylbenzene	**152**	ug/L	5.0	5		06/26/14 06:15	100-41-4	
Toluene	ND	ug/L	5.0	5		06/26/14 06:15	108-88-3	
Xylene (Total)	**177**	ug/L	15.0	5		06/26/14 06:15	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	5		06/26/14 06:15	2037-26-5	
4-Bromofluorobenzene (S)	101	%	80-120	5		06/26/14 06:15	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	80-120	5		06/26/14 06:15	17060-07-0	
Preservation pH	**1.0**		1.0	5		06/26/14 06:15		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: NELL HALL NO 1
Pace Project No.: 60171896

Sample: GW-074941-061814-CK-MW-4 **Lab ID: 60171896003** Collected: 06/18/14 09:00 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	**1830**	ug/L	50.0	1	06/24/14 10:30	06/24/14 19:53	7439-89-6	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		06/26/14 06:31	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		06/26/14 06:31	100-41-4	
Toluene	ND	ug/L	1.0	1		06/26/14 06:31	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		06/26/14 06:31	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	80-120	1		06/26/14 06:31	2037-26-5	
4-Bromofluorobenzene (S)	100	%	80-120	1		06/26/14 06:31	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	80-120	1		06/26/14 06:31	17060-07-0	
Preservation pH	**1.0**		1.0	1		06/26/14 06:31		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: NELL HALL NO 1
Pace Project No.: 60171896

Sample: GW-074941-061814-CK-DUP **Lab ID: 60171896004** Collected: 06/18/14 09:30 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	**402**	ug/L	5.0	5		06/26/14 06:47	71-43-2	
Ethylbenzene	**153**	ug/L	5.0	5		06/26/14 06:47	100-41-4	
Toluene	ND	ug/L	5.0	5		06/26/14 06:47	108-88-3	
Xylene (Total)	**173**	ug/L	15.0	5		06/26/14 06:47	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	80-120	5		06/26/14 06:47	2037-26-5	
4-Bromofluorobenzene (S)	104	%	80-120	5		06/26/14 06:47	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	80-120	5		06/26/14 06:47	17060-07-0	
Preservation pH	**1.0**		1.0	5		06/26/14 06:47		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: NELL HALL NO 1
Pace Project No.: 60171896

Sample: TRIP BLANK **Lab ID: 60171896005** Collected: 06/18/14 10:00 Received: 06/19/14 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		06/25/14 19:56	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		06/25/14 19:56	100-41-4	
Toluene	ND	ug/L	1.0	1		06/25/14 19:56	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		06/25/14 19:56	1330-20-7	
Surrogates								
Toluene-d8 (S)	96	%	80-120	1		06/25/14 19:56	2037-26-5	
4-Bromofluorobenzene (S)	102	%	80-120	1		06/25/14 19:56	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	80-120	1		06/25/14 19:56	17060-07-0	
Preservation pH	**1.0**		1.0	1		06/25/14 19:56		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: NELL HALL NO 1
Pace Project No.: 60171896

QC Batch: MPRP/27772 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60171896001, 60171896002, 60171896003

METHOD BLANK: 1399857 Matrix: Water
Associated Lab Samples: 60171896001, 60171896002, 60171896003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	ND	50.0	06/24/14 19:33	

LABORATORY CONTROL SAMPLE: 1399858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	10000	9190	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1400004 1400005

Parameter	Units	60171896001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	ND	10000	10000	8790	8890	88	89	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: NELL HALL NO 1
Pace Project No.: 60171896

QC Batch: MSV/62581 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60171896001, 60171896002, 60171896003, 60171896004

METHOD BLANK: 1400909 Matrix: Water
Associated Lab Samples: 60171896001, 60171896002, 60171896003, 60171896004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	06/26/14 01:52	
Ethylbenzene	ug/L	ND	1.0	06/26/14 01:52	
Toluene	ug/L	ND	1.0	06/26/14 01:52	
Xylene (Total)	ug/L	ND	3.0	06/26/14 01:52	
1,2-Dichloroethane-d4 (S)	%	101	80-120	06/26/14 01:52	
4-Bromofluorobenzene (S)	%	100	80-120	06/26/14 01:52	
Toluene-d8 (S)	%	108	80-120	06/26/14 01:52	

LABORATORY CONTROL SAMPLE: 1400910

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.4	97	80-120	
Ethylbenzene	ug/L	20	18.9	94	80-121	
Toluene	ug/L	20	19.7	98	80-122	
Xylene (Total)	ug/L	60	58.8	98	80-121	
1,2-Dichloroethane-d4 (S)	%			99	80-120	
4-Bromofluorobenzene (S)	%			100	80-120	
Toluene-d8 (S)	%			104	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: NELL HALL NO 1
Pace Project No.: 60171896

QC Batch: MSV/62584
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60171896005

METHOD BLANK: 1400929
Matrix: Water
Associated Lab Samples: 60171896005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	06/25/14 18:38	
Ethylbenzene	ug/L	ND	1.0	06/25/14 18:38	
Toluene	ug/L	ND	1.0	06/25/14 18:38	
Xylene (Total)	ug/L	ND	3.0	06/25/14 18:38	
1,2-Dichloroethane-d4 (S)	%	97	80-120	06/25/14 18:38	
4-Bromofluorobenzene (S)	%	103	80-120	06/25/14 18:38	
Toluene-d8 (S)	%	99	80-120	06/25/14 18:38	

LABORATORY CONTROL SAMPLE: 1400930

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.6	93	80-120	
Ethylbenzene	ug/L	20	19.4	97	80-121	
Toluene	ug/L	20	17.6	88	80-122	
Xylene (Total)	ug/L	60	58.3	97	80-121	
1,2-Dichloroethane-d4 (S)	%			93	80-120	
4-Bromofluorobenzene (S)	%			103	80-120	
Toluene-d8 (S)	%			95	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: NELL HALL NO 1
Pace Project No.: 60171896

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

LOD - Limit of Detection.

LOQ - Limit of Quantitation.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/62581

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/62584

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NELL HALL NO 1
Pace Project No.: 60171896

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60171896001	**GW-074941-061814-CK-MW-5**	EPA 3010	MPRP/27772	EPA 6010	ICP/21007
60171896002	**GW-074941-061814-CK-MW-6**	EPA 3010	MPRP/27772	EPA 6010	ICP/21007
60171896003	**GW-074941-061814-CK-MW-4**	EPA 3010	MPRP/27772	EPA 6010	ICP/21007
60171896001	**GW-074941-061814-CK-MW-5**	EPA 8260	MSV/62581		
60171896002	**GW-074941-061814-CK-MW-6**	EPA 8260	MSV/62581		
60171896003	**GW-074941-061814-CK-MW-4**	EPA 8260	MSV/62581		
60171896004	**GW-074941-061814-CK-DUP**	EPA 8260	MSV/62581		
60171896005	**TRIP BLANK**	EPA 8260	MSV/62584		

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60171896

60171896

Client Name: COP CBA NM

Optional
Proj Due Date:
Proj Name:

Courier: Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 5489 1285 1387 Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☑ None ☐ Other ☑ ZPLC

Thermometer Used: T-239 / T-194 **Type of Ice:** Wet Blue None ☐ Samples received on ice, cooling process has begun
(circle one)

Cooler Temperature: 4.0

Temperature should be above freezing to 6°C

Date and initials of person examining contents: AH 6/19

Chain of Custody present:	☑Yes ☐No ☐N/A	1.
Chain of Custody filled out:	☑Yes ☐No ☐N/A	2.
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	3.
Sampler name & signature on COC:	☑Yes ☐No ☐N/A	4.
Samples arrived within holding time:	☑Yes ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	7.
Sufficient volume:	☑Yes ☐No ☐N/A	8.
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	9.
Containers intact:	☑Yes ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☑N/A	11.
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	12.
Sample labels match COC: Includes date/time/ID/analyses Matrix: WT	☑Yes ☐No ☐N/A	13.
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☑Yes ☐No	Initial when completed / Lot # of added preservative
Trip Blank present: Pace Trip Blank lot # (if purchased): 0519H-3BFD	☑Yes ☐No ☐N/A	15.
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	16.
Project sampled in USDA Regulated Area:	☐Yes ☐No ☑N/A	17. List State:

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: MW for AFT Date: 6/21/19

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: 11:40	Start:
End: 11:47	End:
Temp:	Temp:

Pace Analytical™
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:

Company:	COP CRA NM
Address:	6121 Indian School Rd NE, Ste 200
	Albequerque, NM 87110
Email To:	cmathews@craworld.com
Phone:	(505)884-0672 Fax: (505)884-4932
Requested Due Date/TAT:	standard

Section B Required Project Information:

Report To:	Christine Mathews
Copy To:	Jeff Walker, Angela Bown
Purchase Order No.:	4517898446
Project Name:	Nell Hall No.1
Project Number:	074941

Section C Invoice Information:

Attention:	ePayables
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	5514, 23

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: NM

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

Pace Project No./ Lab I.D.: 60171896

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 BTEX	6010 Dissolved Fe	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GW-074941-061814-CK-MW-5	WT	G	—	—	6/18/14	0910		4			X	X						X	X		BD(9H)1(3B3N) 2.0 01
2	GW-074941-061814-CK-MW-6	WT	G	—	—	6/18/14	0930		4			X	X						X	X		8.0 02
3	GW-074941-061814-CK-MW-4	WT	G	—	—	6/18/14	0900		4			X	X						X	X		2.0 03
4	GW-074941-061814-CK-dup	WT	G	—	—	6/18/14	0930		3				X						X			04
5	trip blank	WT	G	—	—	6/18/14	1000		3				X						X			05
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Metals were Field Filtered	Cassie Brown / CRA	6/18/14	1030	Ana Hamedi / PASI	6/19	8:30	4.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cassie Brown

SIGNATURE of SAMPLER: Cassie Brown DATE Signed (MM/DD/YY): 06/18/14

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

October 01, 2014

Christine Matthews
CRA
6121 Indian School Rd NE
Suite 200
Albuquerque, NM 87110

RE: Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Dear Christine Matthews:
Enclosed are the analytical results for sample(s) received by the laboratory on September 18, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, COP Conestoga-Rovers & Associa
Chris Fetters, COP Conestoga-Rovers & Associa
Jeff Walker, COP Conestoga-Rovers & Associa

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60178339001	**GW.0749941.091514.CB.MW-4**	Water	09/15/14 16:05	09/18/14 08:25
60178339002	**GW.0749941.091514.CB.MW-5**	Water	09/15/14 16:15	09/18/14 08:25
60178339003	**GW.0749941.091514.CB.MW-6**	Water	09/15/14 16:40	09/18/14 08:25
60178339004	**GW.0749941.091514.CB. DUP**	Water	09/15/14 08:00	09/18/14 08:25
60178339005	**TRIP BLANK**	Water	09/15/14 08:00	09/18/14 08:25

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60178339001	**GW.0749941.091514.CB.MW-4**	EPA 6010	TDS	1
		EPA 8260	EAK	8
60178339002	**GW.0749941.091514.CB.MW-5**	EPA 6010	TDS	1
		EPA 8260	EAK	8
60178339003	**GW.0749941.091514.CB.MW-6**	EPA 6010	TDS	1
		EPA 8260	EAK, PRG	8
60178339004	**GW.0749941.091514.CB. DUP**	EPA 8260	EAK	8
60178339005	**TRIP BLANK**	EPA 8260	EAK	8

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: October 01, 2014

General Information:
3 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Method: **EPA 8260**
Description: 8260 MSV UST, Water
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: October 01, 2014

General Information:
5 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

pH: Post-analysis pH measurement indicates insufficient VOA sample preservation.
- GW.0749941.091514.CB.MW-6 (Lab ID: 60178339003)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/64519

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: MSV/64552

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Sample: GW.0749941.091514.CB.MW-4 **Lab ID: 60178339001** Collected: 09/15/14 16:05 Received: 09/18/14 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	**54.4**	ug/L	50.0	1	09/20/14 11:50	09/30/14 13:40	7439-89-6	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		09/20/14 03:23	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/20/14 03:23	100-41-4	
Toluene	ND	ug/L	1.0	1		09/20/14 03:23	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/20/14 03:23	1330-20-7	
Surrogates								
Toluene-d8 (S)	101	%	80-120	1		09/20/14 03:23	2037-26-5	
4-Bromofluorobenzene (S)	93	%	80-120	1		09/20/14 03:23	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		09/20/14 03:23	17060-07-0	
Preservation pH	**1.0**		1.0	1		09/20/14 03:23		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Sample: GW.0749941.091514.CB.MW-5 **Lab ID: 60178339002** Collected: 09/15/14 16:15 Received: 09/18/14 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	ND	ug/L	50.0	1	09/20/14 11:50	09/30/14 13:48	7439-89-6	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		09/20/14 03:39	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/20/14 03:39	100-41-4	
Toluene	ND	ug/L	1.0	1		09/20/14 03:39	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/20/14 03:39	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	80-120	1		09/20/14 03:39	2037-26-5	
4-Bromofluorobenzene (S)	92	%	80-120	1		09/20/14 03:39	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		09/20/14 03:39	17060-07-0	
Preservation pH	**1.0**		1.0	1		09/20/14 03:39		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Sample: GW.0749941.091514.CB.MW-6 **Lab ID: 60178339003** Collected: 09/15/14 16:40 Received: 09/18/14 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	**7750**	ug/L	50.0	1	09/20/14 11:50	09/30/14 13:51	7439-89-6	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	**502**	ug/L	10.0	10		09/23/14 04:44	71-43-2	
Ethylbenzene	**101**	ug/L	1.0	1		09/20/14 03:54	100-41-4	
Toluene	ND	ug/L	1.0	1		09/20/14 03:54	108-88-3	
Xylene (Total)	**64.0**	ug/L	3.0	1		09/20/14 03:54	1330-20-7	
Surrogates								
Toluene-d8 (S)	102	%	80-120	1		09/20/14 03:54	2037-26-5	
4-Bromofluorobenzene (S)	107	%	80-120	1		09/20/14 03:54	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	80-120	1		09/20/14 03:54	17060-07-0	
Preservation pH	**6.0**		1.0	1		09/20/14 03:54		pH

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Sample: GW.0749941.091514.CB.DUP **Lab ID: 60178339004** Collected: 09/15/14 08:00 Received: 09/18/14 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	**182**	ug/L	1.0	1		09/20/14 04:10	71-43-2	
Ethylbenzene	**63.8**	ug/L	1.0	1		09/20/14 04:10	100-41-4	
Toluene	ND	ug/L	1.0	1		09/20/14 04:10	108-88-3	
Xylene (Total)	**35.4**	ug/L	3.0	1		09/20/14 04:10	1330-20-7	
Surrogates								
Toluene-d8 (S)	102	%	80-120	1		09/20/14 04:10	2037-26-5	
4-Bromofluorobenzene (S)	101	%	80-120	1		09/20/14 04:10	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	80-120	1		09/20/14 04:10	17060-07-0	
Preservation pH	**1.0**		1.0	1		09/20/14 04:10		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Sample: TRIP BLANK **Lab ID: 60178339005** Collected: 09/15/14 08:00 Received: 09/18/14 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		09/20/14 04:25	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/20/14 04:25	100-41-4	
Toluene	ND	ug/L	1.0	1		09/20/14 04:25	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/20/14 04:25	1330-20-7	
Surrogates								
Toluene-d8 (S)	101	%	80-120	1		09/20/14 04:25	2037-26-5	
4-Bromofluorobenzene (S)	94	%	80-120	1		09/20/14 04:25	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		09/20/14 04:25	17060-07-0	
Preservation pH	**1.0**		1.0	1		09/20/14 04:25		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

QC Batch: MPRP/29004 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60178339001, 60178339002, 60178339003

METHOD BLANK: 1446187 Matrix: Water
Associated Lab Samples: 60178339001, 60178339002, 60178339003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	ND	50.0	09/30/14 13:31	

LABORATORY CONTROL SAMPLE: 1446188

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	10000	9110	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1446189 1446190

Parameter	Units	60178339001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	54.4	10000	10000	9140	9250	91	92	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

QC Batch: MSV/64519 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60178339001, 60178339002, 60178339003, 60178339004, 60178339005

METHOD BLANK: 1445977 Matrix: Water
Associated Lab Samples: 60178339001, 60178339002, 60178339003, 60178339004, 60178339005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/20/14 00:03	
Ethylbenzene	ug/L	ND	1.0	09/20/14 00:03	
Toluene	ug/L	ND	1.0	09/20/14 00:03	
Xylene (Total)	ug/L	ND	3.0	09/20/14 00:03	
1,2-Dichloroethane-d4 (S)	%	98	80-120	09/20/14 00:03	
4-Bromofluorobenzene (S)	%	93	80-120	09/20/14 00:03	
Toluene-d8 (S)	%	100	80-120	09/20/14 00:03	

LABORATORY CONTROL SAMPLE: 1445978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.8	94	80-120	
Ethylbenzene	ug/L	20	18.2	91	80-121	
Toluene	ug/L	20	19.7	98	80-122	
Xylene (Total)	ug/L	60	51.3	86	80-121	
1,2-Dichloroethane-d4 (S)	%			97	80-120	
4-Bromofluorobenzene (S)	%			96	80-120	
Toluene-d8 (S)	%			100	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

QC Batch: MSV/64552 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60178339003

METHOD BLANK: 1447183 Matrix: Water
Associated Lab Samples: 60178339003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/23/14 03:22	
1,2-Dichloroethane-d4 (S)	%	96	80-120	09/23/14 03:22	
4-Bromofluorobenzene (S)	%	102	80-120	09/23/14 03:22	
Toluene-d8 (S)	%	99	80-120	09/23/14 03:22	

LABORATORY CONTROL SAMPLE: 1447184

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.1	95	80-120	
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			101	80-120	
Toluene-d8 (S)	%			98	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/64519

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/64552

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 074941 NELL HALL NO. 1
Pace Project No.: 60178339

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60178339001	**GW.0749941.091514.CB.MW-4**	EPA 3010	MPRP/29004	EPA 6010	ICP/21844
60178339002	**GW.0749941.091514.CB.MW-5**	EPA 3010	MPRP/29004	EPA 6010	ICP/21844
60178339003	**GW.0749941.091514.CB.MW-6**	EPA 3010	MPRP/29004	EPA 6010	ICP/21844
60178339001	**GW.0749941.091514.CB.MW-4**	EPA 8260	MSV/64519		
60178339002	**GW.0749941.091514.CB.MW-5**	EPA 8260	MSV/64519		
60178339003	**GW.0749941.091514.CB.MW-6**	EPA 8260	MSV/64519		
60178339003	**GW.0749941.091514.CB.MW-6**	EPA 8260	MSV/64552		
60178339004	**GW.0749941.091514.CB. DUP**	EPA 8260	MSV/64519		
60178339005	**TRIP BLANK**	EPA 8260	MSV/64519		

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60178339

60178339

Client Name: COP CRA NM

Optional
Proj Due Date:
Proj Name:

Courier: Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: T-239 / T-194 **Type of Ice:** (Wet) Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 0.4

Date and initials of person examining contents: JM 9/18/14 1445

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	1.
Chain of Custody filled out:	☑Yes ☐No ☐N/A	2.
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	3.
Sampler name & signature on COC:	☑Yes ☐No ☐N/A	4.
Samples arrived within holding time:	☑Yes ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	7.
Sufficient volume:	☑Yes ☐No ☐N/A	8.
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	9.
Containers intact:	☑Yes ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☑N/A	11.
Filtered volume received for dissolved tests?	☑Yes ☐No ☐N/A	12.
Sample labels match COC: Includes date/time/ID/analyses Matrix: water	☑Yes ☐No ☐N/A	13.
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☑Yes ☐No	Initial when completed JM / Lot # of added preservative
Trip Blank present: Pace Trip Blank lot # (if purchased): 081814.3	☑Yes ☐No ☐N/A	15.
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	16.
Project sampled in USDA Regulated Area:	☐Yes ☐No ☑N/A	17. List State:

AFT

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AAF Date: 9/19/14

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: 1440	Start:
End: 1495	End:
Temp:	Temp:

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

Section A Required Client Information:

Company:	COP CRA NM
Address:	6121 Indian School Rd NE, Ste 200
	Albequerque, NM 87110
Email To:	cmathews@craworld.com
Phone: (505)884-0672	Fax: (505)884-4932
Requested Due Date/TAT:	standard

Section B Required Project Information:

Report To:	Christine Mathews
Copy To:	Jeff Walker, Angela Bown
Purchase Order No.:	4517898446
Project Name:	Nell Hall No.1
Project Number:	074941

Section C Invoice Information:

Attention:	ePayables
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	5514, 23

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NM

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 BTEX	6010 Dissolved Fe	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GW-074941-091514-CB-MW-4	WT	G	—	—	9/15/14	1605		3			1	3					Y	X	X		3(DLHA) 1(BP3F) 001
2	GW-074941-091514-CB-MW-5	WT	G	—	—	9/15/14	1615		3			1	3					Y	X	X		002
3	GW-074941-091514-CB-MW-10	WT	G	—	—	9/15/14	1640		3			1	3					Y	X	X		003
4	GW-074941-091514-CB-DUP	WT	G	—	—	9/15/14			3				3					Y				3(DLHA) 004
5	TRIP BLANK	WT		—	—				3				3					Y				↓ 005
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Requested Analysis Filtered (Y/N)

Pace Project No./ Lab I.D. 60178329

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals have been field filtered	Cassie Brown	9/17/14	1530		9/18/14	825	0.4	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cassie Brown

SIGNATURE of SAMPLER: Cassie Brown DATE Signed (MM/DD/YY): 9/17/14

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1 5% per month for any invoices not paid within 30 days.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

January 05, 2015

Christine Mathews
CRA
6121 Indian School Rd NE
Suite 200
Albuquerque, NM 87110

RE: Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Dear Christine Mathews:
Enclosed are the analytical results for sample(s) received by the laboratory on December 18, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, COP Conestoga-Rovers & Associa
Angela Bown, Conestoga Rovers & Associates
Chris Fetters, COP Conestoga-Rovers & Associa
Jeff Walker, COP Conestoga-Rovers & Associa

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60184939001	**GW-074941-121514-CM-MW-4**	Water	12/15/14 16:45	12/18/14 09:00
60184939002	**GW-074941-121514-CM-MW-5**	Water	12/15/14 16:35	12/18/14 09:00
60184939003	**GW-074941-121514-CM-MW-6**	Water	12/15/14 17:00	12/18/14 09:00
60184939004	**GW-074941-121514-CM-DUP**	Water	12/15/14 08:00	12/18/14 09:00
60184939005	**TB-074941-121514-CM-TRIP BLANK**	Water	12/15/14 13:00	12/18/14 09:00

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60184939001	**GW-074941-121514-CM-MW-4**	EPA 6010	SMW	1
		EPA 8260	RAB	8
60184939002	**GW-074941-121514-CM-MW-5**	EPA 6010	SMW	1
		EPA 8260	RAB	8
60184939003	**GW-074941-121514-CM-MW-6**	EPA 6010	SMW	1
		EPA 8260	RAB	8
60184939004	**GW-074941-121514-CM-DUP**	EPA 8260	RAB	8
60184939005	**TB-074941-121514-CM-TRIP BLANK**	EPA 8260	RAB	8

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: CRA Conoco New Mexico
Date: January 05, 2015

General Information:
3 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Method: **EPA 8260**
Description: 8260 MSV UST, Water
Client: CRA Conoco New Mexico
Date: January 05, 2015

General Information:
5 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/66727

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Sample: GW-074941-121514-CM-MW-4 **Lab ID: 60184939001** Collected: 12/15/14 16:45 Received: 12/18/14 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	**456**	ug/L	50.0	1	12/23/09 05:00	12/26/14 11:28	7439-89-6	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/21/14 07:37	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/21/14 07:37	100-41-4	
Toluene	ND	ug/L	1.0	1		12/21/14 07:37	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		12/21/14 07:37	1330-20-7	
Surrogates								
Toluene-d8 (S)	95	%	80-120	1		12/21/14 07:37	2037-26-5	
4-Bromofluorobenzene (S)	95	%	80-120	1		12/21/14 07:37	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	80-120	1		12/21/14 07:37	17060-07-0	
Preservation pH	**1.0**		1.0	1		12/21/14 07:37		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Sample: GW-074941-121514-CM-MW-5 **Lab ID: 60184939002** Collected: 12/15/14 16:35 Received: 12/18/14 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	ND	ug/L	50.0	1	12/23/09 05:00	12/26/14 11:30	7439-89-6	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/21/14 07:53	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/21/14 07:53	100-41-4	
Toluene	ND	ug/L	1.0	1		12/21/14 07:53	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		12/21/14 07:53	1330-20-7	
Surrogates								
Toluene-d8 (S)	96	%	80-120	1		12/21/14 07:53	2037-26-5	
4-Bromofluorobenzene (S)	95	%	80-120	1		12/21/14 07:53	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	80-120	1		12/21/14 07:53	17060-07-0	
Preservation pH	**1.0**		1.0	1		12/21/14 07:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Sample: GW-074941-121514-CM-MW-6 **Lab ID: 60184939003** Collected: 12/15/14 17:00 Received: 12/18/14 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron, Dissolved	**5450**	ug/L	50.0	1	12/23/09 05:00	12/26/14 11:32	7439-89-6	
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	**333**	ug/L	5.0	5		12/25/14 16:19	71-43-2	
Ethylbenzene	**75.8**	ug/L	1.0	1		12/21/14 08:08	100-41-4	
Toluene	ND	ug/L	1.0	1		12/21/14 08:08	108-88-3	
Xylene (Total)	**24.9**	ug/L	3.0	1		12/21/14 08:08	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	80-120	1		12/21/14 08:08	2037-26-5	
4-Bromofluorobenzene (S)	94	%	80-120	1		12/21/14 08:08	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	80-120	1		12/21/14 08:08	17060-07-0	
Preservation pH	**1.0**		1.0	1		12/21/14 08:08		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Sample: GW-074941-121514-CM-DUP **Lab ID: 60184939004** Collected: 12/15/14 08:00 Received: 12/18/14 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	**314**	ug/L	5.0	5		12/25/14 16:34	71-43-2	
Ethylbenzene	**50.2**	ug/L	1.0	1		12/21/14 08:24	100-41-4	
Toluene	ND	ug/L	1.0	1		12/21/14 08:24	108-88-3	
Xylene (Total)	**16.9**	ug/L	3.0	1		12/21/14 08:24	1330-20-7	
Surrogates								
Toluene-d8 (S)	95	%	80-120	1		12/21/14 08:24	2037-26-5	
4-Bromofluorobenzene (S)	97	%	80-120	1		12/21/14 08:24	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	80-120	1		12/21/14 08:24	17060-07-0	
Preservation pH	**1.0**		1.0	1		12/21/14 08:24		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Sample: TB-074941-121514-CM-TRIP BLANK **Lab ID: 60184939005** Collected: 12/15/14 13:00 Received: 12/18/14 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/21/14 08:40	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/21/14 08:40	100-41-4	
Toluene	ND	ug/L	1.0	1		12/21/14 08:40	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		12/21/14 08:40	1330-20-7	
Surrogates								
Toluene-d8 (S)	97	%	80-120	1		12/21/14 08:40	2037-26-5	
4-Bromofluorobenzene (S)	96	%	80-120	1		12/21/14 08:40	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	80-120	1		12/21/14 08:40	17060-07-0	
Preservation pH	**1.0**		1.0	1		12/21/14 08:40		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

QC Batch: MPRP/30285 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET Dissolved
Associated Lab Samples: 60184939001, 60184939002, 60184939003

METHOD BLANK: 1499114 Matrix: Water
Associated Lab Samples: 60184939001, 60184939002, 60184939003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	ND	50.0	12/26/14 10:29	

LABORATORY CONTROL SAMPLE: 1499115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	10000	10300	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1499116 1499117

Parameter	Units	60184723003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	65.9	10000	10000	10000	9870	100	98	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

QC Batch: MSV/66627 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60184939001, 60184939002, 60184939003, 60184939004, 60184939005

METHOD BLANK: 1498083 Matrix: Water
Associated Lab Samples: 60184939001, 60184939002, 60184939003, 60184939004, 60184939005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/21/14 04:13	
Ethylbenzene	ug/L	ND	1.0	12/21/14 04:13	
Toluene	ug/L	ND	1.0	12/21/14 04:13	
Xylene (Total)	ug/L	ND	3.0	12/21/14 04:13	
1,2-Dichloroethane-d4 (S)	%	106	82-119	12/21/14 04:13	
4-Bromofluorobenzene (S)	%	94	80-120	12/21/14 04:13	
Toluene-d8 (S)	%	96	80-120	12/21/14 04:13	

LABORATORY CONTROL SAMPLE: 1498084

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.2	96	80-120	
Ethylbenzene	ug/L	20	21.0	105	80-120	
Toluene	ug/L	20	18.8	94	80-120	
Xylene (Total)	ug/L	60	60.9	101	80-120	
1,2-Dichloroethane-d4 (S)	%			104	82-119	
4-Bromofluorobenzene (S)	%			96	80-120	
Toluene-d8 (S)	%			98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1498085 1498086

Parameter	Units	60184774004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	66.2	20	20	81.3	84.3	75	91	46-155	4	13	
Ethylbenzene	ug/L	4.5	20	20	23.3	25.2	94	103	51-148	8	14	
Toluene	ug/L	ND	20	20	17.1	18.4	84	90	47-149	7	16	
Xylene (Total)	ug/L	ND	60	60	55.5	59.0	93	98	39-158	6	15	
1,2-Dichloroethane-d4 (S)	%						110	108	82-119			
4-Bromofluorobenzene (S)	%						95	97	80-120			
Toluene-d8 (S)	%						96	96	80-120			
Preservation pH		1.0			1.0	1.0				0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

QC Batch: MSV/66727
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60184939003, 60184939004

METHOD BLANK: 1500270 Matrix: Water
Associated Lab Samples: 60184939003, 60184939004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/25/14 16:03	
1,2-Dichloroethane-d4 (S)	%	106	80-120	12/25/14 16:03	
4-Bromofluorobenzene (S)	%	98	80-120	12/25/14 16:03	
Toluene-d8 (S)	%	98	80-120	12/25/14 16:03	

LABORATORY CONTROL SAMPLE: 1500271

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	21.4	107	80-120	
1,2-Dichloroethane-d4 (S)	%			106	80-120	
4-Bromofluorobenzene (S)	%			98	80-120	
Toluene-d8 (S)	%			99	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/66727

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 074941 NELL HALL NO 1
Pace Project No.: 60184939

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60184939001	**GW-074941-121514-CM-MW-4**	EPA 3010	MPRP/30285	EPA 6010	ICP/22641
60184939002	**GW-074941-121514-CM-MW-5**	EPA 3010	MPRP/30285	EPA 6010	ICP/22641
60184939003	**GW-074941-121514-CM-MW-6**	EPA 3010	MPRP/30285	EPA 6010	ICP/22641
60184939001	**GW-074941-121514-CM-MW-4**	EPA 8260	MSV/66627		
60184939002	**GW-074941-121514-CM-MW-5**	EPA 8260	MSV/66627		
60184939003	**GW-074941-121514-CM-MW-6**	EPA 8260	MSV/66627		
60184939003	**GW-074941-121514-CM-MW-6**	EPA 8260	MSV/66727		
60184939004	**GW-074941-121514-CM-DUP**	EPA 8260	MSV/66627		
60184939004	**GW-074941-121514-CM-DUP**	EPA 8260	MSV/66727		
60184939005	**TB-074941-121514-CM-TRIP BLANK**	EPA 8260	MSV/66627		

Pace Analytical®
www.pacelabs.com

Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60184939

60184939

Optional
Proj Due Date:
Proj Name:

Client Name: CoP CRA NM

Courier: Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 6262 2064 4791 Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☑ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: (T-239) / T-194 **Type of Ice:** (Wet) Blue None (circle one) ☐ Samples received on ice, cooling process has begun

Cooler Temperature: 1.7

Temperature should be above freezing to 6°C

Date and initials of person examining contents: JHS 12/18/14 1550

Chain of Custody present:	☑Yes	☐No	☐N/A	1.
Chain of Custody filled out:	☑Yes	☐No	☐N/A	2.
Chain of Custody relinquished:	☑Yes	☐No	☐N/A	3.
Sampler name & signature on COC:	☑Yes	☐No	☐N/A	4.
Samples arrived within holding time:	☑Yes	☐No	☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time requested:	☐Yes	☑No	☐N/A	7.
Sufficient volume:	☑Yes	☐No	☐N/A	8.
Correct containers used:	☑Yes	☐No	☐N/A	
Pace containers used:	☑Yes	☐No	☐N/A	9.
Containers intact:	☑Yes	☐No	☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes	☐No	☑N/A	11.
Filtered volume received for dissolved tests?	☑Yes	☐No	☐N/A	12.
Sample labels match COC:	☑Yes	☐No	☐N/A	
Includes date/time/ID/analyses Matrix: water				13.
All containers needing preservation have been checked.	☐Yes	☐No	☑N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☑N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☑Yes	☐No		Initial when completed: N/A — Lot # of added preservative
Trip Blank present:	☑Yes	☐No	☐N/A	
Pace Trip Blank lot # (if purchased): 120114-3				15.
Headspace in VOA vials (>6mm):	☐Yes	☑No	☐N/A	16.
Project sampled in USDA Regulated Area:	☐Yes	☐No	☑N/A	17. List State:

Client Notification/ Resolution: Copy COC to Client? Y / (N) Field Data Required? Y / N

Person Contacted: ____________ Date/Time: ____________

Comments/ Resolution: ____________

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.	
Start: 1550	Start:
End: 1600	End:
Temp:	Temp:

Project Manager Review: AAF Date: 12/18/14

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:

Company:	CRA COP NM
Address:	6121 Indian School Rd NE, Ste 200
	Albequerque, NM 87110
Email To:	cmathews@craworld.com
Phone: (505)884-0672	Fax: (505)884-4932
Requested Due Date/TAT:	standard

Section B Required Project Information:

Report To:	Christine Mathews
Copy To:	Jeff Walker, Angela Bown
Purchase Order No.:	4071723
Project Name:	Nell Hall No.1
Project Number:	074941

Section C Invoice Information:

Attention:	CRA
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	7801, 23

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NM

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 BTEX	6010 Dissolved Fe	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GW·074941·121514·CM·MW-4	WT	G			12/15/14	1645		4			X	X						X	X		60184939
2	GW·074941·121514·CM·MW-5	WT	G			12/15/14	1635		4			X	X						X	X		
3	GW·074941·121514·CM·MW-6	WT	G			12/15/14	1700		4			X	X						X	X		
4	GW·074941·121514·CM·dup	WT	G			12/15/14	—		3				X						X			
5	TB·074941·121514·CM·trip blank					12/17/14	1300		3				X						X			
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals have been field filtered.	Cassie Brown/CRA	12/17/14	1500		12/18/14	900	1-7	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cassie Brown

SIGNATURE of SAMPLER: Cassie Brown

DATE Signed (MM/DD/YY): 12/17/14

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.