3R - 090

SEMI-ANNUAL GWMR

06/03/2011

TETRA TECH, INC.

6121 Indian School Rd. NE Suite 200
Albuquerque, NM 87110
(505) 237-8440

June 3, 2011

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

RE: **(1 and 2)** ConocoPhillips Company, Nell Hall No. 1, San Juan County, New Mexico - September 2010 and March 2011 Semi-Annual Groundwater Monitoring Reports
(3) ConocoPhillips Company Randleman No. 1 Site, San Juan County, New Mexico - September 2010 Quarterly Groundwater Monitoring Report
(4) ConocoPhillips Company, San Juan 27-5 No. 34A, Rio Arriba County, New Mexico - March 2011 Quarterly Groundwater Monitoring Report
(5) ConocoPhillips Company, Sategna No. 2E, San Juan County, New Mexico - March 2011Quarterly Groundwater Monitoring Report
(6) ConocoPhillips Company, Shepherd & Kelsey No. 1E, San Juan County, New Mexico - March 2011 Quarterly Groundwater Monitoring Report
(7 and 8) ConocoPhillips Company Wilmuth No. 1 Site, San Juan County, New Mexico - December 2010 and March 2011 Quarterly Groundwater Monitoring Reports

Dear Mr. von Gonten:

Enclosed please find a copy of the above-referenced documents as compiled by Tetra Tech, Inc., for these San Juan Basin sites.

Please do not hesitate to contact me at (505) 237-8440 if you have any questions or require additional information.

Sincerely,

Kelly E. Blanchard

Kelly E. Blanchard
Project Manager/Geologist

Enclosures (8)

Cc: Brandon Powell, New Mexico Oil Conservation Division (Aztec, NM Office)
Terry Lauck, ConocoPhillips Company Risk Management and Remediation (electronic only)
Chris Jaquez, Landowner (Nell Hall No. 1 only)

3R090

SEPTEMBER 2010 SEMI-ANNUAL GROUNDWATER MONITORING REPORT

CONOCOPHILLIPS COMPANY
NELL HALL No. 1
FLORA VISTA, SAN JUAN COUNTY NEW MEXICO

OCD # 3R0090

API # 30-045-09619

Prepared for:

ConocoPhillips

Risk Management and Remediation
420 South Keeler Avenue
Bartlesville, OK 74004

Prepared by:

TETRA TECH, INC.

6121 Indian School Rd. NE, Suite 200
Albuquerque, NM 87110
Tetra Tech Project No. 114-690134

June 2011

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SEMI-ANNUAL GROUNDWATER MONITORING REPORT CONOCOPHILLIPS COMPANY NELL HALL NO. 1 FLORA VISTA, SAN JUAN COUNTY, NEW MEXICO

1.0 INTRODUCTION

This report presents the results of a semi-annual groundwater monitoring event conducted by Tetra Tech, Inc. (Tetra Tech) on September 27, 2010 at the ConocoPhillips Company, Nell Hall No. 1 site in Flora Vista, San Juan County, New Mexico (Site).

The Site is located on private land in Section 07, Township 30N, Range 10W of San Juan County, New Mexico, approximately 2 miles west of the city of Aztec. The Site consists of a gas production well and associated equipment. The location and general features of the Site are presented as **Figures 1** and **2**, respectively.

1.1 Site History

The history of the Site is outlined in **Table 1** and discussed in more detail 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 Monitor 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 Monitor 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).

Tetra Tech began quarterly sampling of Monitor Wells MW-4, MW-5, and MW-6 in 2004; then moved to sampling on a semi-annual basis in 2005, and annually beginning in 2006. Semi-annual sampling was resumed in 2007 due to seasonal groundwater fluctuations. The most recent semi-annual sampling event conducted at the site was performed on September 27, 2010.

2.0 METHODOLOGY AND RESULTS

2.1 Groundwater Monitoring Methodology

Groundwater Elevation Measurements

Depth to groundwater was gauged at Monitor Wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 using a dual interface probe prior to sampling. Groundwater elevations were recorded on Tetra Tech groundwater sampling field forms (**Appendix A**) and are presented in **Table 2**.

Hydrographs illustrating groundwater level fluctuations since March 2004 in Monitor Wells MW-5 and MW-6 are presented as **Figure 3** and **Figure 4**, 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 or in 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**). A Groundwater elevation contour map was created using September 2010 data, and is included as **Figure 5**.

Groundwater Sampling

Groundwater samples were collected from Monitor Wells MW-4, MW-5, and MW-6 during the September 2010 event as a continuation of semi-annual monitoring at the Site. Approximately three well volumes were purged from each monitor well with a dedicated polyethylene 1.5-inch disposable bailer prior to sampling. 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 Southern Petroleum Laboratory located in Houston, Texas. The samples were analyzed for the presence of benzene, toluene, ethylbenzene and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B and for dissolved iron by EPA Method 6010B.

Ferrous iron testing was conducted during prior sampling events. Tetra Tech changed the sampling protocol in September of 2009 to analyze for dissolved iron instead of ferrous iron since New Mexico Water Quality Control Commission (NMWQCC) standards are based on dissolved iron. Dissolved iron samples were collected during the September 2010 event in unpreserved containers supplied by the laboratory, and were filtered and preserved by laboratory personnel prior to analysis. Results from the September 2010 sampling event indicate that concentrations of dissolved iron are below the NMWQCC standard in all sampled site monitoring wells.

2.2 Groundwater Sampling Analytical Results

During the September 27, 2010 sampling event, samples were collected from MW-4, MW-5, and MW-6. Groundwater samples from MW-4 and MW-5 were below laboratory detection limits for BTEX and dissolved iron. The groundwater sample collected from MW-6 contained 0.676 milligrams per liter (mg/L) dissolved iron, which is below the NMWQCC groundwater quality standard of 1 mg/L. Benzene, ethylbenzene and xylenes were detected in MW-6 at concentrations of 300 micrograms per liter (ug/L), 250 ug/L and 410 ug/L, respectively. The benzene concentration for MW-6 is above the NMWQCC quality standard of 10 ug/L.

Benzene concentrations in MW-6 have fluctuated throughout previous groundwater sampling events at the Site (**Table 3**). These results are postulated to be related to the fluctuating water table at the Site. To demonstrate this possibility, a graph depicting benzene and groundwater elevation versus time in MW-6 was prepared and is attached as **Figure 6**. The graph illustrates an inverse relationship between benzene concentrations and water column thickness in this monitor well. Historically, elevated benzene concentrations in MW-6 (peaking at 2,500 ug/L in March 2004) should be viewed in this regard. It should also be noted that the March 2004 groundwater sample was collected immediately following installation of MW-6 in February 2004, in which soil samples collected at 25 and 30 feet bgs each resulted in an exceedence of the 50 milligram per kilogram (mg/kg) regulatory limit for BTEX, and soil samples collected at

25, 30, and 35 feet bgs were found to contain total petroleum hydrocarbons (TPH) at levels greater than the 100 mg/kg regulatory limit (SMA, 2004).

Historical laboratory analytical data are summarized on **Table 3**. A geologic cross-section is included as **Figure 7**. The laboratory September 2010 analytical report is presented in **Appendix B**.

3.0 CONCLUSIONS

Tetra Tech will continue semi-annual groundwater sampling at the Site. The next groundwater sampling event is tentatively scheduled for March 2011. Samples will be collected from MW-4, MW-5, and MW-6 for BTEX analyses by EPA Method 8260B and dissolved iron by EPA Method 6010B. Please contact Kelly Blanchard at 505-237-8440 or kelly.blanchard@tetratech.com if you have any questions or require additional information.

4.0 REFERENCES

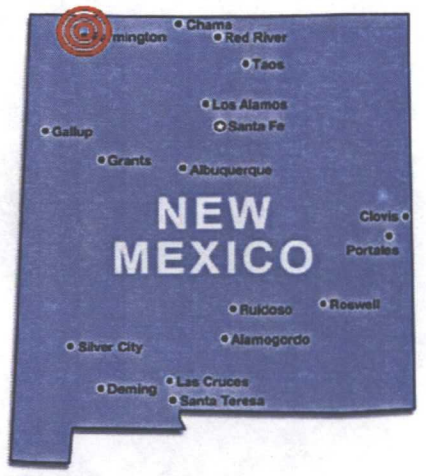
Souder Miller and Associates (2004). *Nell Hall Monitor well Installation Report.* Prepared for ConocoPhillips Company Report Dated May 7. 64 pp.

FIGURES

ConocoPhillips 2008 High Resolution Aerial Photography

FIGURE 1.

Site Location Map
ConocoPhillips Company
Nell Hall No. 1
Flora Vista, New Mexico
Sec 07, Twp 30N, Rng 11W



Approximate ConocoPhillips Nell Hall #1 Site location

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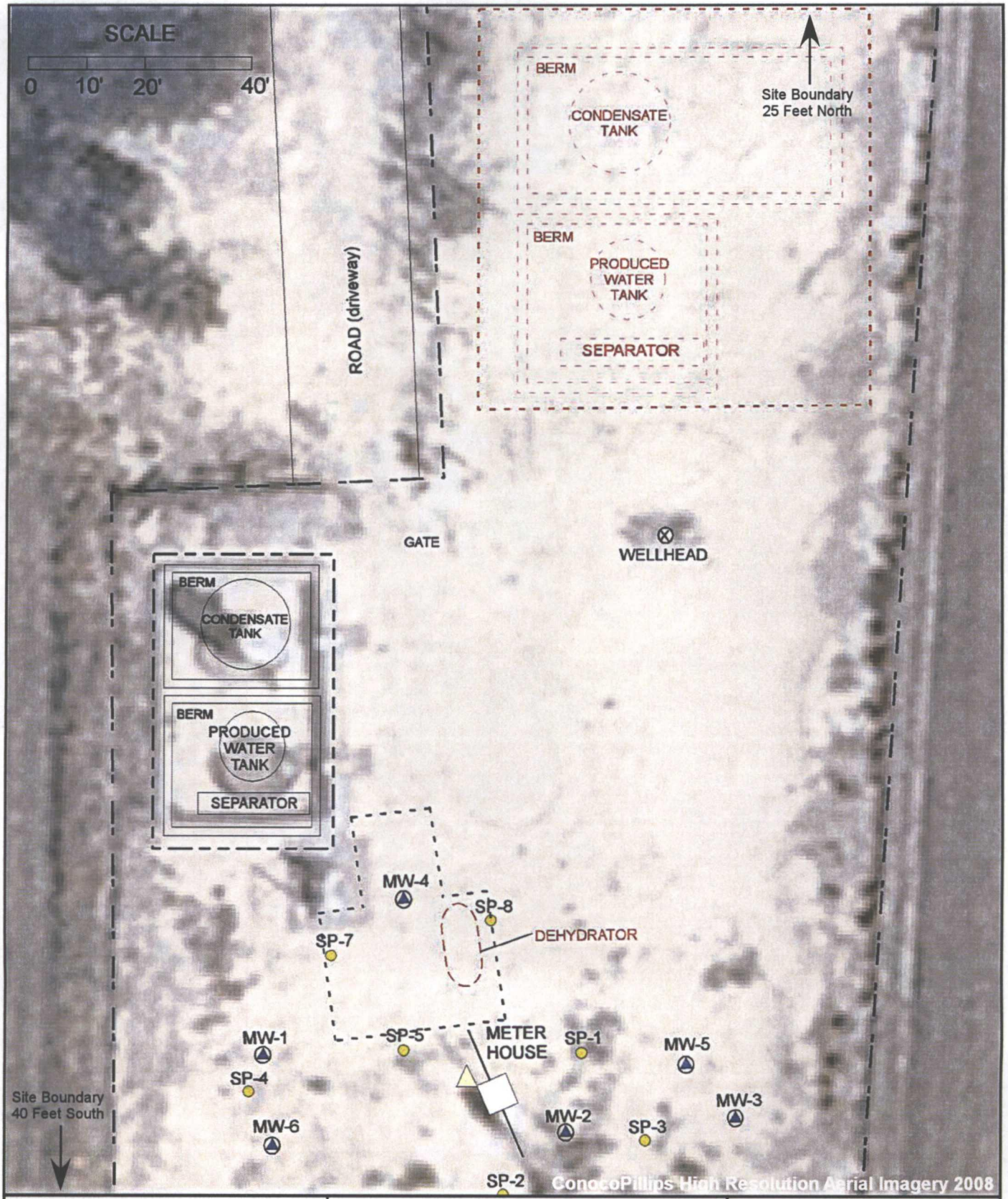

FIGURE 2:
SITE LAYOUT MAP
CONOCOPHILLIPS COMPANY
Nell Hall No. 1
Flora Vista, New Mexico
Sec 07, Twp 30N, Rng 11W

LEGEND

MW-2 - Monitoring Well Locations
SP-3 - Sparge Point Locations
- Survey Control Point
- Fence
- Previous Equipment Placement
- Approximate 1994 Excavation Location

NOTE: SP-1 Removed.

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Figure 3. MW-5 Hydrograph (March 2004 - September 2010) - ConocoPhillips Company Nell Hall No.1

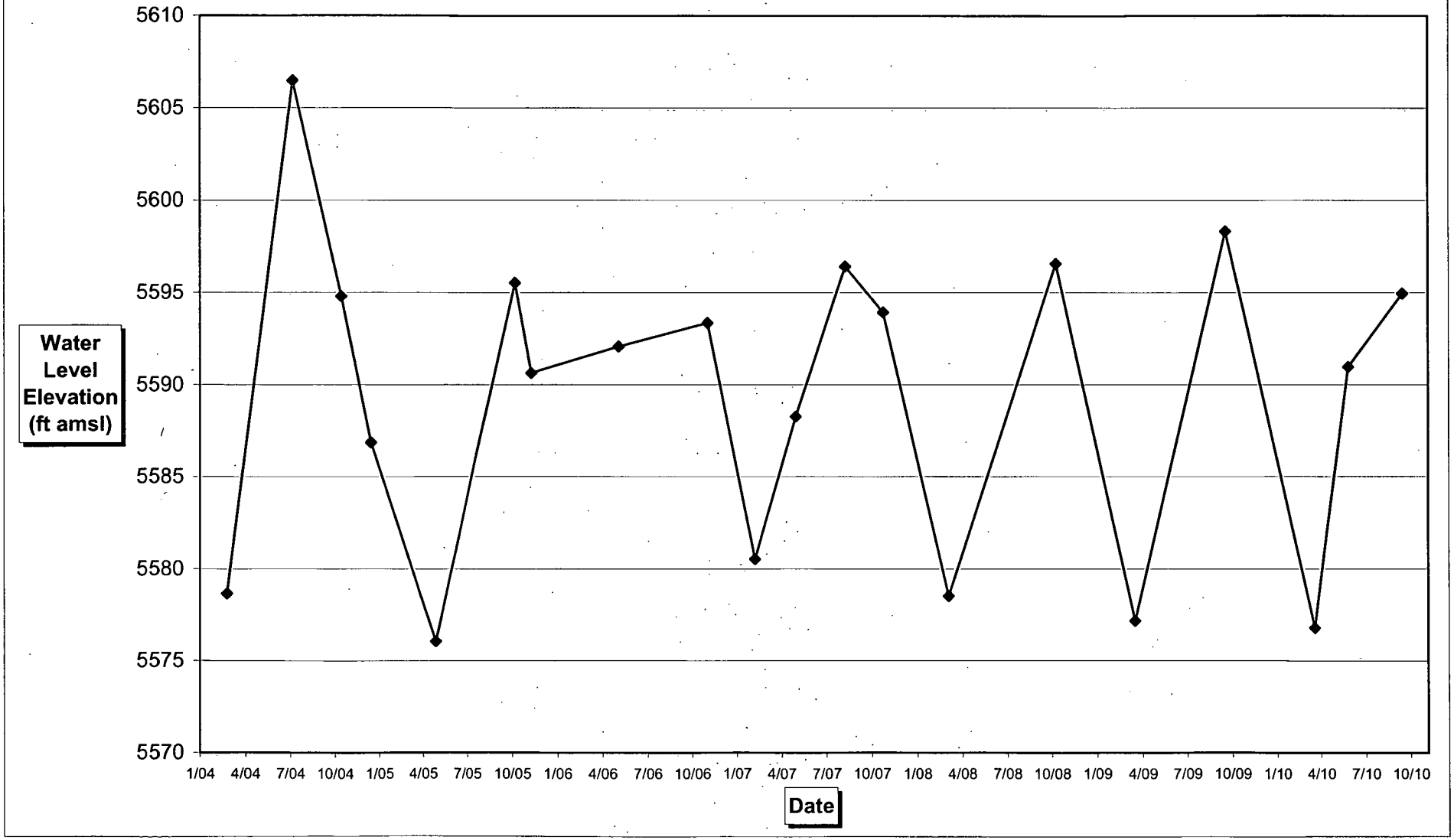

Figure 4. MW-6 Hydrograph (March 2004 - September 2010) - ConocoPhillips Company Nell Hall No. 1

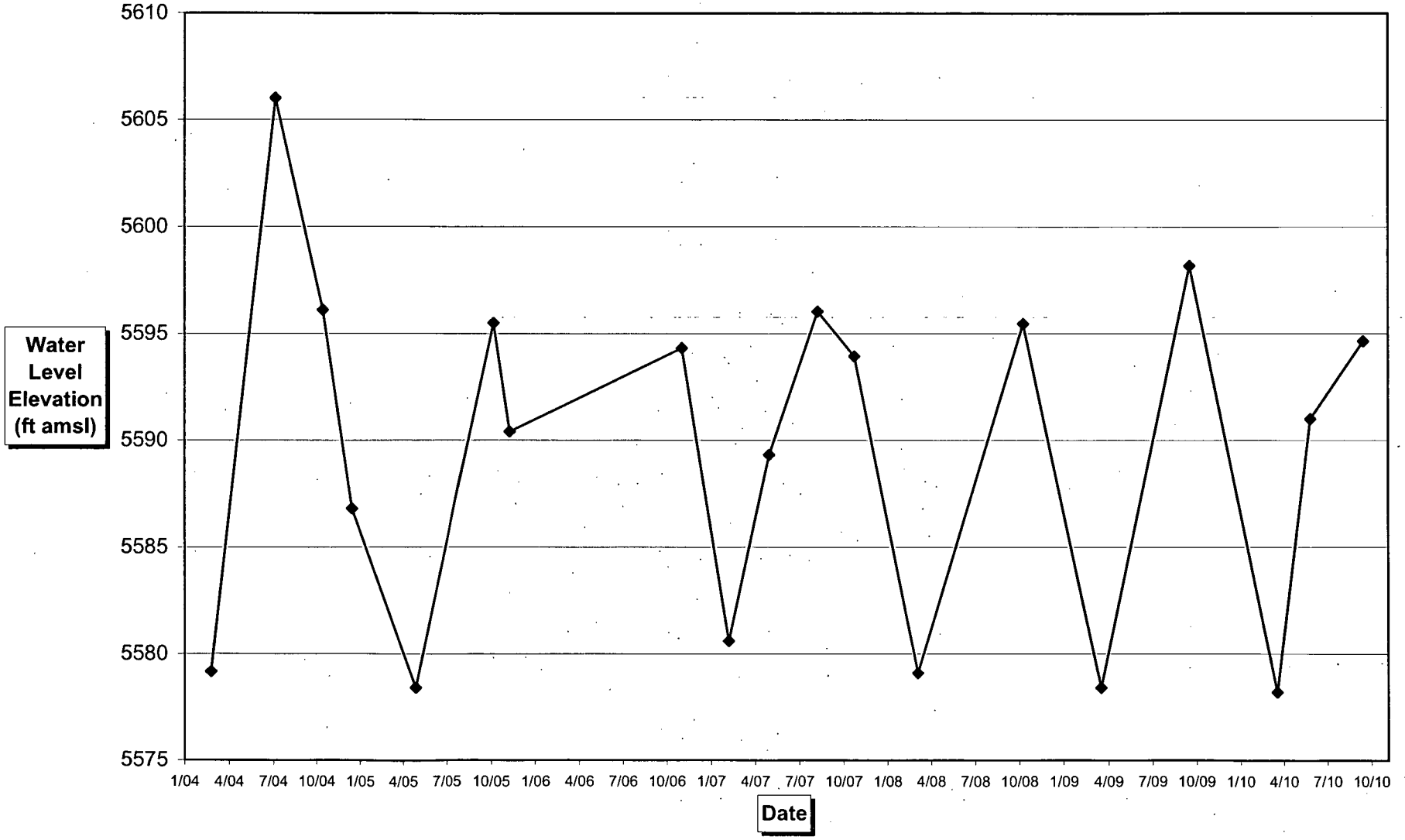

FIGURE 5:
GROUNDWATER ELEVATION CONTOUR MAP
CONOCOPHILLIPS COMPANY
Nell Hall No. 1 (Sept. 27, 2010)
Unit M, Sec 07, T30N, R11W
API # - 30-045-09619
San Juan County, New Mexico

LEGEND

- Monitoring Well Locations
- Sparge Point Locations
- Fence
- Previous Equipment Placement
- Approximate Excavation Location
- Groundwater Elevation Contour (dashed where inferred)

NOTE: SP-1 Removed.

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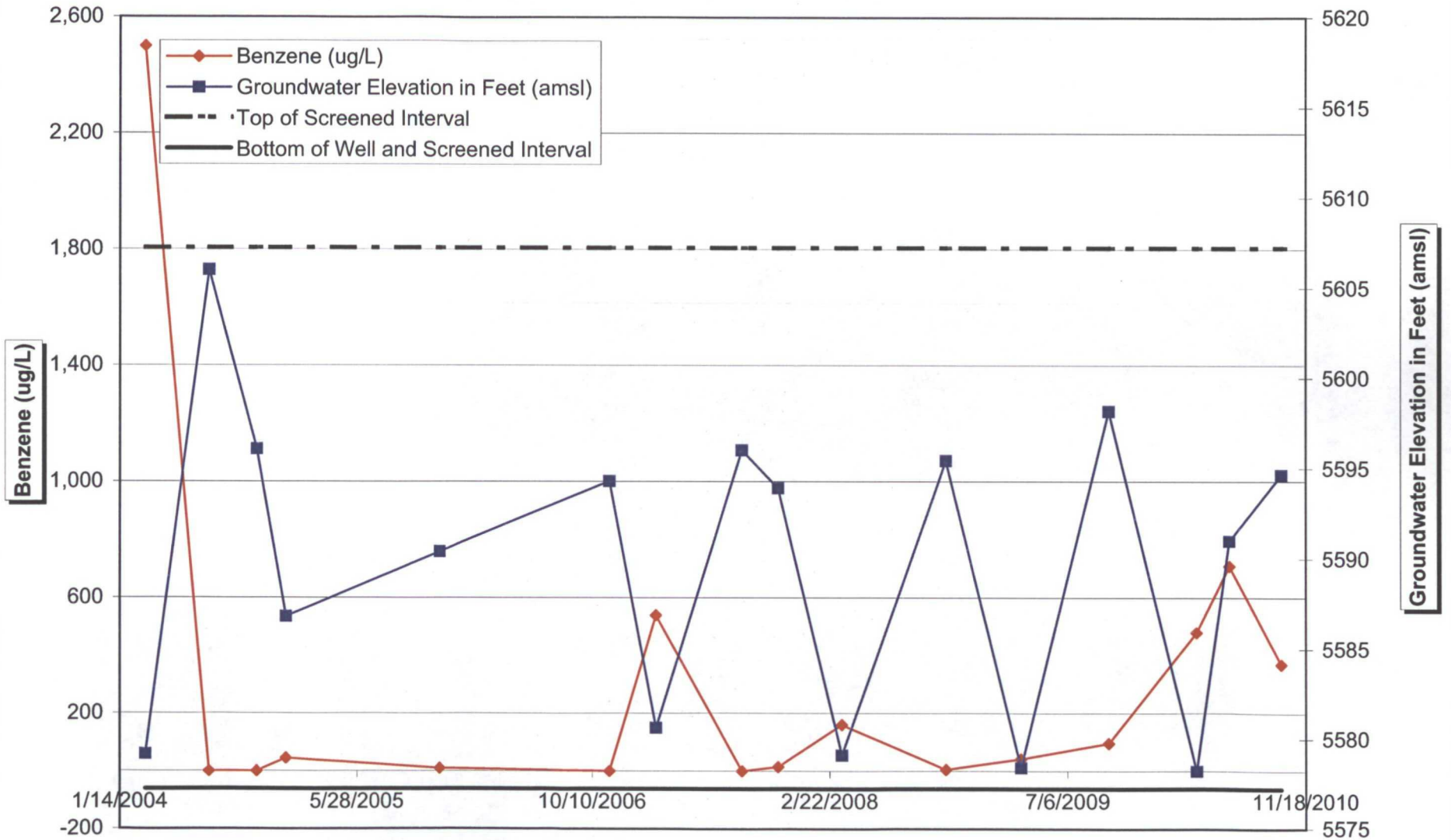
Figure 6. Inverse Relationship Between Benzene and Groundwater Elevation in MW-6
ConocoPhillips Company, Nell Hall No.1



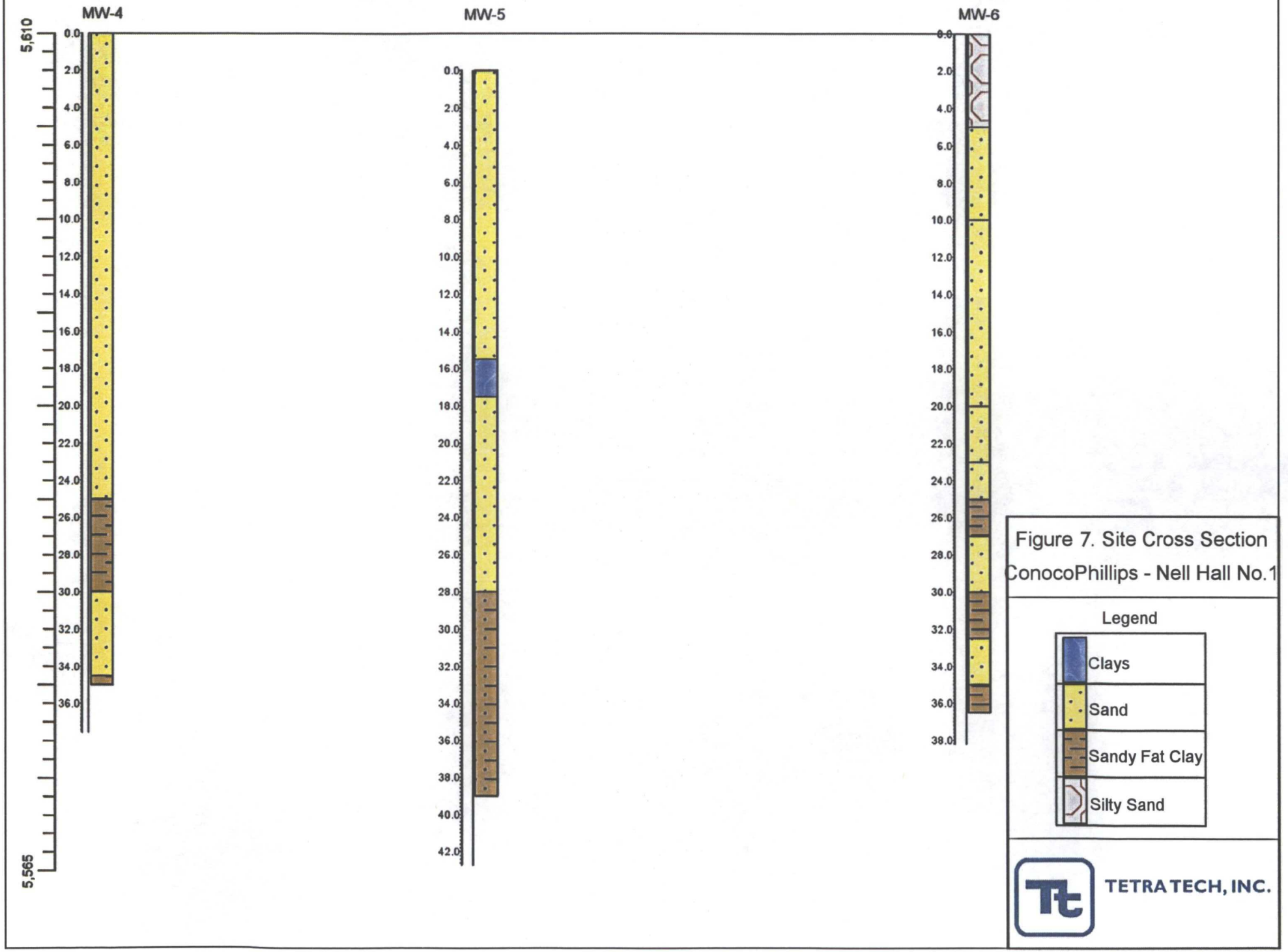


Figure 7. Site Cross Section
ConocoPhillips - Nell Hall No.1

TABLES

Table 1. Site History Timeline - ConocoPhillips Company Nell Hall No. 1

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 Compnay
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 monitor 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	Monitor Well Sampling	On Site Technologies, LTD found insufficient water in the 3 monitor 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 18 µg/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 21 µg/L.
January 1, 2003	Operator Name Change	Conoco Inc. and Phillips Petroluem Company merged to form ConocoPhillips Company.
February 17 and 18, 2004	Monitor Well Installation	Monitor 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 monitoring 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	Monitor Well Sampling	Quarterly groundwater sampling of Monitor 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	Monitor Well Sampling	Semi-annual sampling of monitor wells MW-4, MW-5, and MW-6

Table 1. Site History Timeline - ConocoPhillips Company Nell Hall No. 1

Date/Time Period	Event/Action	Description/Comments
November 15, 2006	Monitor Well Sampling	Annual sampling of monitor wells MW-4, MW-5, and MW-6
February 21, 2007 through October 22, 2008	Monitor Well Sampling	Resumption of semi-annual sampling of Monitor 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	Monitor Well sampling	Monitor 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 42 µg/L.
September 30, 2009	Monitor Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. MW-6 benzene concentration of 96 µg/L; dissolved iron concentration of 1.06 milligrams per liter (mg/L).
March 31 and April 1, 2010	Monitor Well Sampling	Groundwater samples collected from MW-5 and MW-6; MW-4 was dry. MW-6 benzene concentration of 480 µg/L; a sample for dissolved iron was not obtained due to low water levels in MW-6.
June 9, 2010	Monitor Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6 as a continuation of semi-annual sampling event. MW-6 benzene concentration of 710 µg/L; dissolved iron concentration of 11.4 milligrams per liter (mg/L).
September 27, 2010	Monitor Well Sampling	Groundwater samples collected from MW-4, MW-5 and MW-6. MW-6 benzene concentration of 300 µg/L; dissolved iron concentration of 0.676 milligrams per liter (mg/L).

Table 2. Groundwater Elevation Summary (March 2004 - September 2010) - ConocoPhillips Company Nell Hall No. 1

Well ID	Date Installed	Total Depth (ft. below TOC)	Screen Interval (ft below TOC)	Elevation (ft. msl) (TOC)	Date Measured	Groundwater Level (ft below TOC)	Groundwater Elevation (ft amsl)
MW-1	Unknown	28.55	Unknown	5615.72	5/10/2005	Dry	NC
					10/20/2005	19.25	5596.47
					11/22/2005	24.15	5591.57
					5/17/2006	NM	NC
					11/15/2006	21.40	5594.32
					2/19/2007	Dry	NC
					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	NC
					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	NC
					6/9/2010	24.16	5591.56
				97.95*	9/27/2010	20.00	77.95
MW-2	Unknown	27.32	Unknown	5614.94	5/10/2005	Dry	NC
					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	NC
					5/14/2007	Dry	NC
					8/22/2007	18.03	5596.91
					11/6/2007	20.43	5594.51
					3/17/2008	Dry	NC
					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	NC
					6/9/2010	23.36	5591.58
				97.16*	9/27/2010	19.42	77.74
MW-3	Unknown	27.45	Unknown	5615.53	5/10/2005	Dry	NC
					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	NC
					5/14/2007	Dry	NC
					8/22/2007	18.36	5597.17
					11/6/2007	20.95	5594.58
					3/17/2008	Dry	NC
					10/22/2008	19.34	5596.19
					3/30/2009	Dry	NC
					9/30/2009	NM	NC
					3/31/2010	Dry	NC
					6/9/2010	23.87	5591.66
				97.77*	9/27/2010	19.93	77.84
MW-4	2/18/2004	37.57	7.57 - 37.57	5614.87	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	NC
					10/20/2005	18.87	5596.00
					11/22/2005	23.93	5590.94
					5/17/2006	NM	NC
					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	NC
					6/9/2010	23.61	5591.26
				97.75*	9/27/2010	19.61	78.14

Table 2. Groundwater Elevation Summary (March 2004 - September 2010) - ConocoPhillips Company Nell Hall No. 1

Well ID	Date Installed	Total Depth (ft. below TOC)	Screen Interval (ft below TOC)	Elevation (ft. msl) (TOC)	Date Measured	Groundwater Level (ft below TOC)	Groundwater Elevation (ft amsl)
MW-5	2/17/2004	42.7	7.7 - 42.7	5615.86	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	19.3	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
MW-6	2/18/2004	38.21	8.21 - 38.21	5615.44	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	NC
					10/20/2005	19.94	5595.50
					11/22/2005	25.02	5590.42
					5/17/2006	NM	NC
					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

Explanation

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

Table 3. Groundwater Analytical Results Summary (March 2004 - September 2010)
ConocoPhillips Company Nell Hall No. 1

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Phosphate (mg/L)	Dissolved Iron (mg/L)
MW-4	3/8/2004	**13**	12	64	**1,400**	NA	NA	NA	NA	NA
	7/19/2004	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA
	10/27/2004	**11**	8	21	130	NA	NA	NA	NA	NA
	12/27/2004	<2.5	<2.5	<2.5	<0.5	NA	NA	NA	NA	NA
	5/11/2005	Dry								
	11/22/2005	<0.5	<0.7	<0.8	<0.8	<0.40	105	2.7	<0.25	NA
	11/15/2006	<0.5	<0.7	<0.8	<0.8	<0.25	110	0.083	<0.25	NA
	2/21/2007	<0.5	<0.7	<0.8	<0.8	<0.25	59.6	1.6	0.28	NA
	8/22/2007	<0.5	<0.7	<0.8	<0.8	<0.25	96.5	0.04	<0.25	NA
	11/6/2007	<0.5	<0.7	<0.8	<0.8	3.3	111	<0.008	0.17	NA
	3/17/2008	<5	<5	<5	<5	<0.5	64.5	0.187	0.9	NA
	10/22/2008	<5	<5	<5	<5	1.9	93.8	<0.1	0.18	NA
	3/30/2009	Dry								
	9/30/2009	<1	<1	<1	<1	NA	NA	NA	NA	<0.02
	3/31/2010	Dry								
	6/9/2010	<1	<1	<1	<1	NA	NA	NA	NA	<0.02
	9/27/2010	<1	<1	<1	<1	NA	NA	NA	NA	<0.02
MW-5	3/8/2004	1.1	<0.5	1	17	NA	NA	NA	NA	NA
	7/19/2004	<0.5	0.55	<0.5	0.72	NA	NA	NA	NA	NA
	10/27/2004	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA
	12/27/2004	<0.5	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA
	5/11/2005	<0.5	<0.7	<0.8	<0.8	2.3	139	<0.0080	1.2	NA
	11/22/2005	<0.5	<0.7	<0.8	<0.8	<0.40	38	<0.0080	0.43	NA
	11/15/2006	<0.5	<0.7	<0.8	<0.8	2.3	77.9	<0.0080	<0.25	NA
	2/21/2007	<0.5	<0.7	<0.8	<0.8	1.3	83.3	<0.0080	0.28	NA
	8/22/2007	<0.5	<0.7	<0.8	<0.8	5.6	125	<0.0080	<0.25	NA
	11/6/2007	<0.5	<0.7	<0.8	<0.8	4	59	<0.0080	<0.25	NA
	3/17/2008	<5	<5	<5	<5	0.986	69.7	0.876	1.4	NA
	10/22/2008	<5	<5	<5	<5	0.532	105	<.1	<.15	NA
	3/30/2009	<5	<5	<5	<5	NA	NA	0.822	NA	NA
	9/30/2009	<1	<1	<1	<1	NA	NA	NA	NA	<0.02
	3/31/2010	<1	<1	<1	<1	NA	NA	NA	NA	<0.02
	6/9/2010	<1	<1	<1	<1	NA	NA	NA	NA	<0.02
	9/27/2010	<1	<1	<1	<1	NA	NA	NA	NA	<0.02
MW-6	3/8/2004	**2,500**	14	**1,600**	**21,031**	NA	NA	NA	NA	NA
	7/19/2004	<0.5	<0.5	0.98	2.6	NA	NA	NA	NA	NA
	10/27/2004	0.4	0.3	0.5	2.1	NA	NA	NA	NA	NA
	12/27/2004	**45**	6.8	14	71.7	NA	NA	NA	NA	NA
	5/11/2005	Dry								
	11/22/2005	10	0.7	16	150	<0.40	3.4	7.7	2.8	NA
	11/15/2006	<0.5	<0.7	<0.8	<0.8	<0.25	41.3	0.19	<0.25	NA
	2/21/2007	**540**	<1	76	**810**	<0.25	1.8	6.4	9.0	NA
	8/22/2007	<0.5	<0.7	<0.8	<0.8	<0.25	12.6	0.95	<0.25	NA
	11/6/2007	**15**	<0.7	47	390	<0.25	5.6	3.6	0.1	NA
	3/18/2008	**160**	<5	<5	33	NA	NA	8.88	NA	NA
	10/22/2008	<5	<5	<5	<5	<1.0	5.15	38.7	0.9	NA
	3/30/2009	**42**	<5	<5	10	NA	NA	31.8	NA	NA
	9/30/2009	**96**	4.7	62	120	NA	NA	NA	NA	**1.06**
	4/1/2010	**480**	<1.0	78	200	NA	NA	NA	NA	NA
	6/9/2010	**710**	<1.0	420	520	NA	NA	NA	NA	**11.4**
	9/27/2010	**300**	<1.0	250	410	NA	NA	NA	NA	0.676
NMWQCC Standards		**10 (µg/L)**	**750 (µg/L)**	**750 (µg/L)**	**620 (µg/L)**	**10 (mg/L)**	**600 (mg/L)**	**NE**	**NE**	**1 (mg/L)**

Explanation

mg/L = milligrams per liter (parts per million)
NA = Not Analyzed
NE = Not Established
NMWQCC = New Mexico Water Quality Control Commission
µg/L = micrograms per liter (parts per billion)

APPENDIX A

SEPTEMBER 2010 GROUNDWATER SAMPLING FIELD FORMS

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name Nell Hall No. 1 Page 1 of 3

Project No.

Site Location Flora Vista, NM

Site/Well No. MW-4 Coded/ Replicate No. Date 9-27-10

Weather Sunny, hot 83° Time Sampling Began 1645 Time Sampling Completed 1705

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface — MP Elevation 97.75

Total Sounded Depth of Well Below MP 37.57 Water-Level Elevation 78.14

Held ____ Depth to Water Below MP 19.61 Diameter of Casing 2"

Wet ____ Water Column in Well 17.93 Gallons Pumped/Bailed Prior to Sampling 8.75

Gallons per Foot 0.16

Gallons in Well 2.868 Sampling Pump Intake Setting (feet below land surface) —

Purging Equipment Purge pump / Bailer X3 = 8.606

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1701	17.73	7.01	939	0.611	3.54	37.7	21.5	~~7.5~~ 7.0
1703	17.71	7.02	940	0.611	2.97	31.0	25.1	8.0
1705	17.17	7.03	939	0.610	2.81	29.4	-11.1	8.5

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Fe	16 oz plastic	None

Remarks

Sampling Personnel Barbara Brown & Christine Mathews

Well Casing Volumes

Gal./ft.							
	1 ¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1 ½" = 0.10	2 ½" = 0.24	3" ½ = 0.50	6" = 1.46

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name Nell Hall No. 1 Page 2 of 3

Project No.

Site Location Flora Vista, NM

Site/Well No. MW-5 Coded/ Replicate No. Date 9-27-10

Weather Sunny, hot 83° Time Sampling Began 1605 Time Sampling Completed 1640

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface — MP Elevation 98.81

Total Sounded Depth of Well Below MP 42.94 Water-Level Elevation 77.89

Held ____ Depth to Water Below MP 20.92 Diameter of Casing 2" 10.75

Wet ____ Water Column in Well 22.02 Gallons Pumped/Bailed Prior to Sampling 10.5

Gallons per Foot 0.16

Gallons in Well 3.52 Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer X3=10.5696

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1635	16.73	6.86	917	0.596	6.02	61.8	31.7	10.0
1637	16.39	6.84	931	0.605	5.79	59.1	46.3	10.25
1639	16.68	6.73	916	0.596	6.07	62.4	61.8	10.5

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Fe	16 oz plastic	None

Remarks

Sampling Personnel Christine Mathews & Cassie Brown

Well Casing Volumes

Gal./ft.							
	1 ¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1 ½" = 0.10	2 ½" = 0.24	3" ½ = 0.50	6" = 1.46

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name Nell Hall No. 1 Page 3 of 3

Project No.

Site Location Flora Vista, NM

Site/Well No. MW-8 Coded/ Replicate No. Duplicate @ 1635 Date 9-27-10

Weather Sunny, not 83° Time Sampling Began 1610 Time Sampling Completed 1630

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface —

MP Elevation 98.41

Total Sounded Depth of Well Below MP 38.21 44

Water-Level Elevation 77.62

Held ____ Depth to Water Below MP ~~20.65~~ 20.79

Diameter of Casing 2"

Wet ____ Water Column in Well 17.65

Gallons Pumped/Bailed Prior to Sampling 8.5

Gallons per Foot 0.16

Gallons in Well 2.824

Sampling Pump Intake Setting (feet below land surface) —

Purging Equipment Purge pump / Bailer X3 = 8.47

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1626	16.94	6.50	1075	.698	1.41	14.4	-100.1	7.5
1628	16.92	6.46	1057	.687	1.19	12.4	-98.0	8.0
1629	16.91	6.53	1040	.676	1.28	13.4	-100	8.5

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Fe	16 oz plastic	None

Remarks

Sampling Personnel Christine Matteux & Cassie Brown

Well Casing Volumes

Gal./ft.							
	1 ¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1 ½" = 0.10	2 ½" = 0.24	3" ½ = 0.50	6" = 1.46

APPENDIX B

SEPTEMBER 2010 LABORATORY ANALYTICAL REPORT

SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

Certificate of Analysis

October 15, 2010

Workorder: H10100006

Kelly Blanchard
Tetra Tech
6121 Indian School Road NE
Suite 200
Albuquerque, NM 87110

Project: Nell Hall #1

Project Number: Nell Hall #1

Site: Nell Hall #1

PO Number: ENFOS

NELAC Cert. No.: T104704205-09-3

This Report Contains A Total Of 16 Pages

Excluding Any Attachments

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Certificate of Analysis

October 15, 2010

Workorder: H10100006

Kelly Blanchard
Tetra Tech
6121 Indian School Road NE
Suite 200
Albuquerque, NM 87110

Project: Nell Hall #1

Project Number: Nell Hall #1

Site: Nell Hall #1

PO Number: ENFOS

NELAC Cert. No.: T104704205-09-3

I. SAMPLE RECEIPT:

All samples were received intact. The internal ice chest temperatures were measured on receipt and are recorded on the attached Sample Receipt Checklist.

II: ANALYSES AND EXCEPTIONS:

Per the Conoco Phillips TSM Revision 0, a copy of the internal chain of custody is to be included in final data package. However, due to LIMS limitations, this cannot be provided at this time.

There were no exceptions noted.

III. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report (" mg\kg-dry " or " ug\kg-dry ").

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

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Certificate of Analysis

October 15, 2010

Workorder: H10100006

Kelly Blanchard
Tetra Tech
6121 Indian School Road NE
Suite 200
Albuquerque, NM 87110

Project: Nell Hall #1

Project Number: Nell Hall #1

Site: Nell Hall #1

PO Number: ENFOS

NELAC Cert. No.: T104704205-09-3

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

Erica Cardenas, Senior Project Manager

Enclosures

SPL Inc.
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Fax: (713) 660-8975

SAMPLE SUMMARY

Workorder: H10100006 : Nell Hall #1 Project Number: Nell Hall #1

Lab ID	Sample ID	Matrix	COC ID	Date/Time Collected	Date/Time Received
H10100006001	MW-4	Water		9/27/2010 17:05	10/1/2010 09:30
H10100006002	MW-5	Water		9/27/2010 16:40	10/1/2010 09:30
H10100006003	MW-6	Water		9/27/2010 16:30	10/1/2010 09:30
H10100006004	DUPLICATE	Water		9/27/2010 16:35	10/1/2010 09:30
H10100006005	TRIP BLANK	Water		9/30/2010 09:25	10/1/2010 09:30

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ANALYTICAL RESULTS

Workorder: H10100006 : Nell Hall #1 | Project Number: Nell Hall #1

Lab ID: **H10100006001** | Date/Time Received: 10/1/2010 09:30 | Matrix: Water

Sample ID: **MW-4** | Date/Time Collected: 9/27/2010 17:05

VOLATILES

Analysis Desc: SW-846 8260B | SW-846 5030Analytical Batches:
Batch: 2715 SW-846 8260B on 10/07/2010 07:28 by LKL

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.13	1			2715
Ethylbenzene	ND		1.0	0.48	1			2715
Toluene	ND		1.0	0.13	1			2715
m,p-Xylene	ND		1.0	0.58	1			2715
o-Xylene	ND		1.0	0.35	1			2715
Xylenes, Total	ND		1.0	0.35	1			2715
4-Bromofluorobenzene (S)	96.8 %		74-125		1			2715
1,2-Dichloroethane-d4 (S)	89.1 %		70-130		1			2715
Toluene-d8 (S)	97.7 %		82-118		1			2715

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B | Preparation Batches:
Batch: 2123 SW-846 3010A on 10/04/2010 13:30 by R_V
Analytical Batches:
Batch: 1654 SW-846 6010B on 10/10/2010 19:33 by EBG

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Iron	ND		0.0200	0.00640	1		2123	1654

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ANALYTICAL RESULTS

Workorder: H10100006 : Nell Hall #1 | Project Number: Nell Hall #1

Lab ID: **H10100006002** | Date/Time Received: 10/1/2010 09:30 | Matrix: Water

Sample ID: **MW-5** | Date/Time Collected: 9/27/2010 16:40

VOLATILES

Analysis Desc: SW-846 8260B | SW-846 5030Analytical Batches:
Batch: 2715 SW-846 8260B on 10/07/2010 08:54 by LKL

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.13	1			2715
Ethylbenzene	ND		1.0	0.48	1			2715
Toluene	ND		1.0	0.13	1			2715
m,p-Xylene	ND		1.0	0.58	1			2715
o-Xylene	ND		1.0	0.35	1			2715
Xylenes, Total	ND		1.0	0.35	1			2715
4-Bromofluorobenzene (S)	95.9 %		74-125		1			2715
1,2-Dichloroethane-d4 (S)	90.9 %		70-130		1			2715
Toluene-d8 (S)	97.7 %		82-118		1			2715

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B | Preparation Batches:
Batch: 2123 SW-846 3010A on 10/04/2010 13:30 by R_V
Analytical Batches:
Batch: 1654 SW-846 6010B on 10/10/2010 19:39 by EBG

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Iron	ND		0.0200	0.00640	1		2123	1654

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ANALYTICAL RESULTS

Workorder: H10100006 : Nell Hall #1 | Project Number: Nell Hall #1

Lab ID: **H10100006003** | Date/Time Received: 10/1/2010 09:30 | Matrix: Water

Sample ID: **MW-6** | Date/Time Collected: 9/27/2010 16:30

VOLATILES

Analysis Desc: SW-846 8260B | SW-846 5030Analytical Batches:
Batch: 2715 SW-846 8260B on 10/07/2010 09:50 by LKL DF = 1.
Batch: 2723 SW-846 8260B on 10/08/2010 16:05 by LKL DF = 5.

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	300		5.0	0.64	5			2723
Ethylbenzene	250		5.0	2.4	5			2723
Toluene	ND		1.0	0.13	1			2715
m,p-Xylene	410		5.0	2.9	5			2723
o-Xylene	ND		1.0	0.35	1			2715
Xylenes, Total	410		1.0	0.35	5			2723
4-Bromofluorobenzene (S)	99.1 %		74-125		1			2715
4-Bromofluorobenzene (S)	101 %		74-125		5			2723
1,2-Dichloroethane-d4 (S)	84 %		70-130		1			2715
1,2-Dichloroethane-d4 (S)	86.5 %		70-130		5			2723
Toluene-d8 (S)	98.2 %		82-118		1			2715
Toluene-d8 (S)	101 %		82-118		5			2723

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B | Preparation Batches:
Batch: 2123 SW-846 3010A on 10/04/2010 13:30 by R_V
Analytical Batches:
Batch: 1654 SW-846 6010B on 10/10/2010 20:03 by EBG

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Iron	0.676		0.0200	0.00640	1		2123	1654

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ANALYTICAL RESULTS

Workorder: H10100006 : Nell Hall #1 | Project Number: Nell Hall #1

Lab ID: **H10100006004** | Date/Time Received: 10/1/2010 09:30 | Matrix: Water

Sample ID: **DUPLICATE** | Date/Time Collected: 9/27/2010 16:35

VOLATILES

Analysis Desc: SW-846 8260B | SW-846 5030Analytical Batches:
Batch: 2715 SW-846 8260B on 10/07/2010 09:22 by LKL DF = 1
Batch: 2723 SW-846 8260B on 10/08/2010 16:32 by LKL DF = 5

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	370		5.0	0.64	5			2723
Ethylbenzene	250		5.0	2.4	5			2723
Toluene	ND		1.0	0.13	1			2715
m,p-Xylene	400		5.0	2.9	5			2723
o-Xylene	ND		1.0	0.35	1			2715
Xylenes, Total	400		1.0	0.35	5			2723
4-Bromofluorobenzene (S)	97.8 %		74-125		1			2715
4-Bromofluorobenzene (S)	97.9 %		74-125		5			2723
1,2-Dichloroethane-d4 (S)	89.6 %		70-130		5			2723
1,2-Dichloroethane-d4 (S)	92.3 %		70-130		1			2715
Toluene-d8 (S)	96.1 %		82-118		1			2715
Toluene-d8 (S)	99.3 %		82-118		5			2723

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ANALYTICAL RESULTS

Workorder: H10100006 : Nell Hall #1 Project Number: Nell Hall #1

Lab ID: **H10100006005** Date/Time Received: 10/1/2010 09:30 Matrix: Water

Sample ID: **TRIP BLANK** Date/Time Collected: 9/30/2010 09:25

VOLATILES

Analysis Desc: SW-846 8260B SW-846 5030Analytical Batches:
Batch: 2715 SW-846 8260B on 10/07/2010 07:00 by LKL

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.13	1			2715
Ethylbenzene	ND		1.0	0.48	1			2715
Toluene	ND		1.0	0.13	1			2715
m,p-Xylene	ND		1.0	0.58	1			2715
o-Xylene	ND		1.0	0.35	1			2715
Xylenes, Total	ND		1.0	0.35	1			2715
4-Bromofluorobenzene (S)	93.1 %		74-125		1			2715
1,2-Dichloroethane-d4 (S)	90.6 %		70-130		1			2715
Toluene-d8 (S)	97.4 %		82-118		1			2715

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QUALITY CONTROL DATA

Workorder: H10100006 : Nell Hall #1 | Project Number: Nell Hall #1

QC Batch: MSV/2714 | Analysis Method: SW-846 8260B

QC Batch Method: SW-846 5030 | Preparation: 10/06/2010 00:00 by LKL

Associated Lab Samples: H10100006001, H10100006002, H10100006003, H10100006004, H10100006005, H10100008001, H10100008002, H10100008003, H10100008004, H10100008005, H10100008006

METHOD BLANK: 74520

Analysis Date/Time Analyst: 10/07/2010 06:32 LKL

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Benzene	ug/l	ND		1.0
Ethylbenzene	ug/l	ND		1.0
Toluene	ug/l	ND		1.0
m,p-Xylene	ug/l	ND		1.0
o-Xylene	ug/l	ND		1.0
Xylenes, Total	ug/l	ND		1.0
4-Bromofluorobenzene (S)	%	95.9		74-125
1,2-Dichloroethane-d4 (S)	%	88.8		70-130
Toluene-d8 (S)	%	98.3		82-118

LABORATORY CONTROL SAMPLE: 74521

Analysis Date/Time Analyst: 10/07/2010 06:05 LKL

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Benzene	ug/l	20	17.2	86.1	74-123
Ethylbenzene	ug/l	20	16.1	80.6	72-127
Toluene	ug/l	20	16.6	83.2	74-126
m,p-Xylene	ug/l	40	32.8	82.1	71-129
o-Xylene	ug/l	20	16.2	81.2	74-130
Xylenes, Total	ug/l	60	49.06	81.8	71-130
4-Bromofluorobenzene (S)	%			97.7	74-125
1,2-Dichloroethane-d4 (S)	%			88.6	70-130
Toluene-d8 (S)	%			99.8	82-118

QC results presented in the QC Control Data have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules. Also, MS/MSD % recoveries are calculated by the SPL LIMS using any detected value greater than the MDL.

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QUALITY CONTROL DATA

Workorder: H10100006 : Nell Hall #1 — Project Number: Nell Hall #1

QC Batch: MSV/2722 — Analysis Method: SW-846 8260B

QC Batch Method: SW-846 5030 — Preparation: 10/08/2010 00:00 by LKL

Associated Lab Samples: H10090775001, H10090775003, H10090775006, H10090775009, H10090775010, H10090775011, H10090775012, H10090775013, H10090775014, H10090775016, H10100006003, H10100006004, H10100008001

METHOD BLANK: 74856

Analysis Date/Time Analyst: 10/08/2010 14:19 LKL

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Benzene	ug/l	ND		1.0
Ethylbenzene	ug/l	ND		1.0
m,p-Xylene	ug/l	ND		1.0
Xylenes, Total	ug/l	ND		1.0
4-Bromofluorobenzene (S)	%	97.9		74-125
1,2-Dichloroethane-d4 (S)	%	95.6		70-130
Toluene-d8 (S)	%	101		82-118

LABORATORY CONTROL SAMPLE: 74857

Analysis Date/Time Analyst: 10/08/2010 13:51 LKL

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Benzene	ug/l	20	19.4	96.8	74-123
Ethylbenzene	ug/l	20	19.9	99.6	72-127
m,p-Xylene	ug/l	40	39.5	98.6	71-129
Xylenes, Total	ug/l	60	59.09	98.5	71-130
4-Bromofluorobenzene (S)	%			99.3	74-125
1,2-Dichloroethane-d4 (S)	%			93.5	70-130
Toluene-d8 (S)	%			101	82-118

QC results presented in the QC Control Data have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules. Also, MS/MSD % recoveries are calculated by the SPL LIMS using any detected value greater than the MDL.

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QUALITY CONTROL DATA

Workorder: H10100006 : Nell Hall #1 Project Number: Nell Hall #1

QC Batch: DIGM/2123 Analysis Method: SW-846 6010B

QC Batch Method: SW-846 3010A Preparation: 10/04/2010 13:30 by R_V

Associated Lab Samples: H10100004001 H10100004002 H10100004003 H10100004004 H10100006001 H10100006002 H10100006003 H10100008001 H10100008002 H10100008003 H10100008004 H10100032001

METHOD BLANK: 73599

Analysis Date/Time Analyst: 10/07/2010 14:50 EBG

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Iron	mg/l	ND		0.0200

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 73601 73602 Original: H10100004001

MS Analysis Date/Time Analyst: 10/07/2010 15:08 EBG

MSD Analysis Date/Time Analyst: 10/07/2010 15:14 EBG

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Iron	mg/l	ND	1.0	0.9589	0.9708	95.9	97.1	75-125	1.2	20

QC results presented in the QC Control Data have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules. Also, MS/MSD % recoveries are calculated by the SPL LIMS using any detected value greater than the MDL.

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Legend

(S) - Indicates analyte is a surrogate

Qualifier	Qualifier Description
*	Recovery/RPD value outside QC limits
+	DCS Concentration
B	Analyte detected in the Method Blank
C	MTBE results were not confirmed by GCMS
D	Recovery out of range due to dilution
E	Results exceed calibration range
H	Exceeds holding time
I	Estimated value, between MDL and PQL (Florida)
J	Estimated value
JN	The analysis indicates the presence of an analyte
MI	Matrix Interference
N	Recovery outside of control limits
NC	Not Calculable (Sample Duplicate)
NC	Not Calculated - Sample concentration > 4 times the spike
ND	Not Detected at reporting Limits
P	Pesticide dual column results, greater then 25%
Q	Received past holding time
TNTC	Too numerous to count
U	Not Detected at reporting Limits

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: H10100006 : Nell Hall #1 Project Number: Nell Hall #1

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
H10100006001	**MW-4**	SW-846 3010A	DIGM/2123	SW-846 6010B	ICP/1654
H10100006002	**MW-5**	SW-846 3010A	DIGM/2123	SW-846 6010B	ICP/1654
H10100006003	**MW-6**	SW-846 3010A	DIGM/2123	SW-846 6010B	ICP/1654
H10100006001	**MW-4**	SW-846 5030	MSV/2714	SW-846 8260B	MSV/2715
H10100006002	**MW-5**	SW-846 5030	MSV/2714	SW-846 8260B	MSV/2715
H10100006003	**MW-6**	SW-846 5030	MSV/2714	SW-846 8260B	MSV/2715
H10100006004	**DUPLICATE**	SW-846 5030	MSV/2714	SW-846 8260B	MSV/2715
H10100006005	**TRIP BLANK**	SW-846 5030	MSV/2714	SW-846 8260B	MSV/2715
H10100006003	**MW-6**	SW-846 5030	MSV/2722	SW-846 8260B	MSV/2723
H10100006004	**DUPLICATE**	SW-846 5030	MSV/2722	SW-846 8260B	MSV/2723

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Sample Receipt Checklist

WorkOrder:	H10100006	Received By	LOG
Date and Time	10/01/2010 09:30	Carrier Name:	FEDEXS
Temperature:	2.0°C	Chilled By:	Water Ice

1.	Shipping container/cooler in good condition?	YES
2.	Custody seals intact on shipping container/cooler?	YES
3.	Custody seals intact on sample bottles?	Not Present
4.	Chain of custody present?	YES
5.	Chain of custody signed when relinquished and received?	YES
6.	Chain of custody agrees with sample labels?	YES
7.	Samples in proper container/bottle?	YES
8.	Samples containers intact?	YES
9.	Sufficient sample volume for indicated test?	YES
10.	All samples received within holding time?	YES
11.	Container/Temp Blank temperature in compliance?	YES
12.	Water - VOA vials have zero headspace?	YES
13.	Water - Preservation checked upon receipt(except VOA*)?	Not Applicable

*VOA Preservation Checked After Sample Analysis

SPL Representative: Contact Date & Time:

Client Name Contacted:

Client Instructions:

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Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

8880 Interchange Drive, Houston, TX 77054

Analysis Request and Chain of Custody Record

H10100006

Company Name:	Tetra Tech / Conoco Phillips
Contact:	Kelly Blanchard
Address:	6121 Indian School Rd. NE, Ste. 200
Phone/Fax:	(505) 237-8440 / (505) 237-8656
Email Address:	kelly.blanchard@tetratech.com
Invoice To:	
Purchase Order No:	
Project Name/No:	Nell Hall#1
Site Address:	
Sampled By:	C. Brown

Sampling Event Description
- Quarterly ☐
- Semi-Annual ☐
- WC-Waste Char. ☐
- Other (describe below) ☐

QA/QC Level
- TRRP ☐ LVL 3 ☐
- STD ☐ Other ☐

SAMPLE ID	DATE	TIME	Water	Soil	Sludge	Other	Number Containers	Container Type	Preservative	REQUESTED ANALYSIS: BTEX - 8260	Dissolved Fe ★
MW-4	9.27.10	1705	X				3	VOA	HCl	X	
MW-4	9.27.10	1705	X				1	1Liter	NA		X
MW-5	9.27.10	1640	X				3	VOA	HCl	X	
MW-5	9.27.10	1640	X				1	1Liter	NA		X
MW-6	9.27.10	1630	X				3	VOA	HCl	X	
MW-6	9.27.10	1630	X				1	1Liter	NA		X
duplicate	9.27.10	1635	X				3	VOA	HCl	X	
trip blank	9.30.10	0925	X				2	VOA	HCl	X	

TAT
- 24hr ☐ 72hr ☐
- 48hr ☐ 10 day ☐
- Other ☐ ☐

Special Detection Limits (Specify):

Special Reporting Requirements (Specify):

Consultant Remarks: ★Please filter and preserve metals at lab.

Laboratory Remarks:

PM review:

	Date	Time	
Relinquished by Sampler: C. Brown	9.30.10	1100	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	10/1	9:30	Received by: SPL, Inc