3R-069

QTR GW annual monitoring report

DATE:
October 2009

TETRA TECH, INC.

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

March 16, 2010

Mr. Glen von Gonten
State of New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

RE: (1) ConocoPhillips Company San Juan 27-5 #34-A Site, Rio Arriba County, New Mexico. September 2009 Quarterly Groundwater Monitoring Report
(2) ConocoPhillips Company Hampton 4M Site, Aztec, New Mexico. 2009 Annual Groundwater Monitoring Report

Dear Mr. von Gonten:

Enclosed please find one (1) copy of each of the above-referenced documents as compiled by Tetra Tech, Inc. for these Farmington area 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 (2)

2009 ANNUAL GROUNDWATER MONITORING REPORT

CONOCOPHILLIPS COMPANY
HAMPTON 4M
AZTEC, NEW MEXICO

OCD # 3RP-69-0

API # 30-045-25810

Prepared for:

ConocoPhillips

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. 114-690131

October 2009

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ANNUAL GROUNDWATER MONITORING REPORT HAMPTON 4M, AZTEC, NEW MEXICO

1.0 INTRODUCTION

This report presents the results of the 2009 annual groundwater monitoring event conducted by Tetra Tech, Inc. (Tetra Tech), at the ConocoPhillips Company Hampton 4M site near Aztec, New Mexico.

The site is located approximately ¼ mile south of Hampton Arroyo and 2 miles southeast of Aztec, New Mexico. The site consists of a gas production well and associated equipment and installations on Federal land. The location and general features of the Hampton 4M site are shown on **Figures 1** and **2**, respectively.

1.1 Site Background

The history of the site is outlined in **Table 1**. The Hampton 4M gas well was spudded on November 22, 1983, by Southland Royalty Company (Southland). Southland was acquired by Burlington Resources, Inc. (Burlington) in January of 1996 and Burlington was subsequently acquired by ConocoPhillips Company in March of 2006.

Environmental assessment and remediation activities at this site date back to April of 1996, when Public Service Company of New Mexico (PNM), the operator of some tanks, a dehydration unit and an unlined earthen pit on the north end of the Hampton 4M well pad, initiated pit closure work. Approximately 6,400 cubic yards of contaminated soil was removed from the site by Burlington Resources (Burlington) from November 10, 1998 through February 2, 1999. During this period, Monitor Wells MW-2, MW-3, MW-4, MW-6, MW-8 and MW-10 were removed. Maps outlining the excavation area for these activities, as well as a former excavation conducted by Burlington in December 1997 are provided in **Attachment A**. Monitor Wells MW-13 and MW-14 were removed during additional excavation activities in 2000. The existing monitor well network consists of 9 wells: MW-1, MW-5, MW-7, MW-9, MW-11, MW-12, MW-15, MW-16, and TMW-1. A nearby groundwater seep is also part of the current program to monitor the progression of natural remediation at the site. A generalized geologic cross section for the site is provided in **Figure 3**.

2.0 MONITORING SUMMARY AND SAMPLING METHODOLOGY / RESULTS

2.1 Monitoring Summary

Groundwater samples were collected from Monitor Wells MW-1, MW-5, MW-7, MW-9, MW-11, MW-12, MW-15, MW-16, and a seep on location on September 24, 2009. Monitor Well TMW-1 was not sampled due to an insufficient water column. Prior to sampling, depth to groundwater was measured in all monitor wells. A groundwater contour map, showing a general flow direction to the south, is provided in **Figure 4**. Groundwater elevation data is included in **Table 2**.

2.2 Groundwater Sampling Methodology

Monitor Wells MW-1, MW-5, MW-7, MW-9, MW-11, MW-12, MW-15 and MW-16 were each purged of three well volumes of water and sampled. A 1.5-inch clear, polyvinyl chloride, disposable bailer was used to purge each well and to collect the groundwater sample. The purge water generated during the event was disposed of in the waste water tank located on site. The groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped with chain-of-custody documentation to Southern Petroleum Laboratories in Houston, Texas. All samples collected were analyzed for the presence of benzene, toluene, ethylbenzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B. Field sampling forms are included as **Appendix A**.

2.3 Groundwater Sampling Analytical Results

Samples collected during the 2009 sampling event indicate the following results:

- Groundwater concentrations for BTEX were below laboratory method detection limits in Monitor Wells MW-1, MW-9, MW-11, MW-15, and the onsite seep.
- Groundwater concentrations exceeded the New Mexico Water Quality Control Commission (NMWQCC) standard for:
    - benzene (10 micrograms per liter [µg/L]), toluene (750 µg/L), and total xylenes (620 µg/L) in monitoring wells MW-5 and MW-16;
    - benzene in monitoring well MW-12.

Table 3 summarizes the laboratory analytical results for the 2009 sampling event. The corresponding laboratory analysis report including quality control summaries is included in **Appendix B**.

3.0 CONCLUSIONS

Tetra Tech recommends continued annual groundwater sampling at the Site in order to provide sufficient data for site closure. Site closure will be requested when groundwater quality results begin to indicate that all constituents of concern are consistently below NMWQCC groundwater quality standards. Please contact Kelly Blanchard at 505-237-8440 or kelly.blanchard@tetratech.com if you have any questions or require additional information.

FIGURES

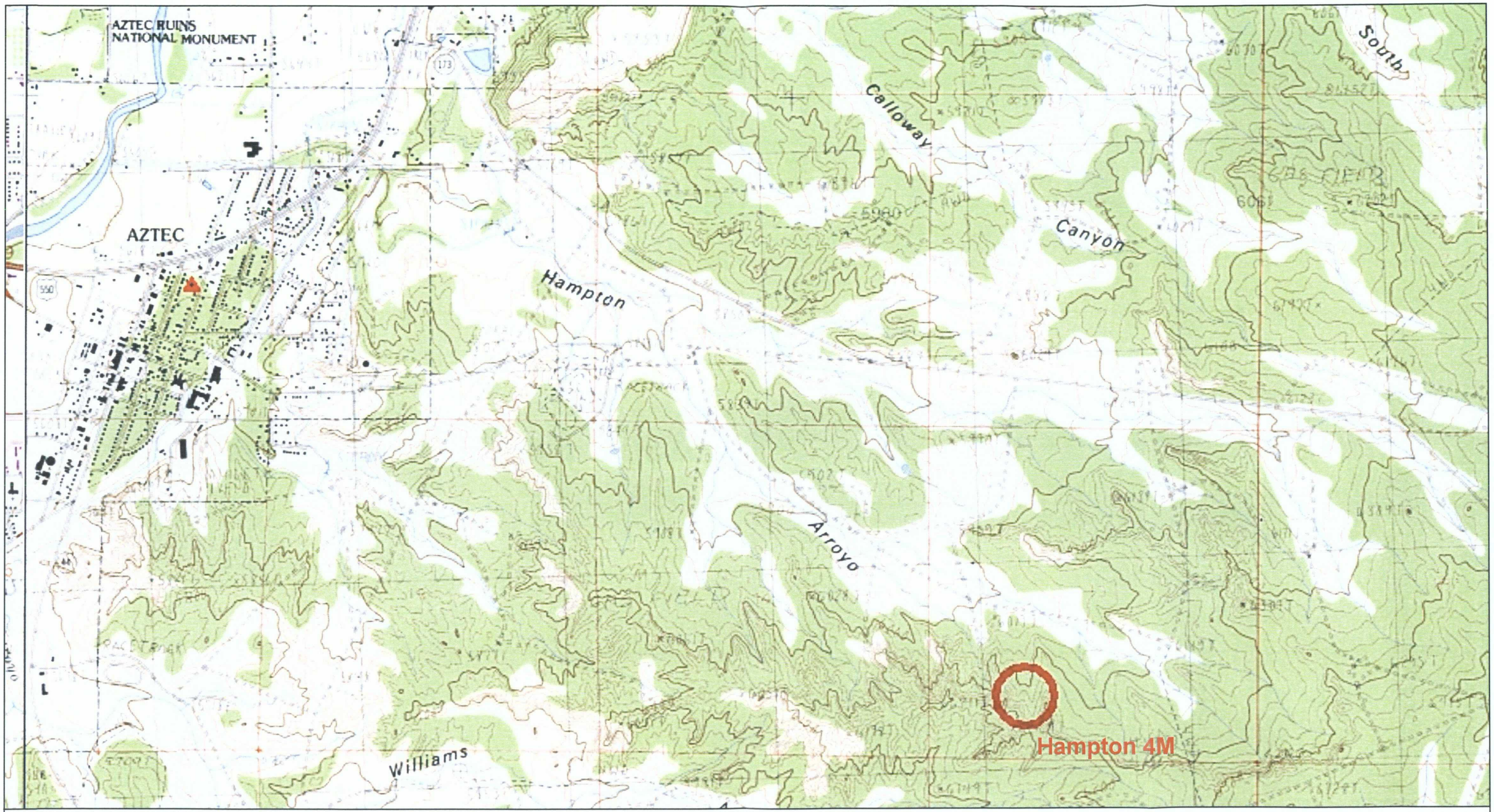

Figure 1. Site Location Map
ConocoPhillips Hampton 4M Site
Aztec, New Mexico

Approximate Scale:

0 0.5 1.0

Miles

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Figure 2. Site Layout Map
ConocoPhillips Company
Hampton 4M Site
Aztec, New Mexico

LEGEND

- Monitoring Well
- Seep
- El Paso Gas Pipeline

0 50 100 200
FEET

N

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Figure 3. Groundwater Contour Map
ConocoPhillips Company
Hampton 4M Site
Aztec, New Mexico

LEGEND

- Monitoring Well
- Seep
- El Paso Gas Pipeline
- Groundwater elevation contour

0 50 100 200
FEET

N

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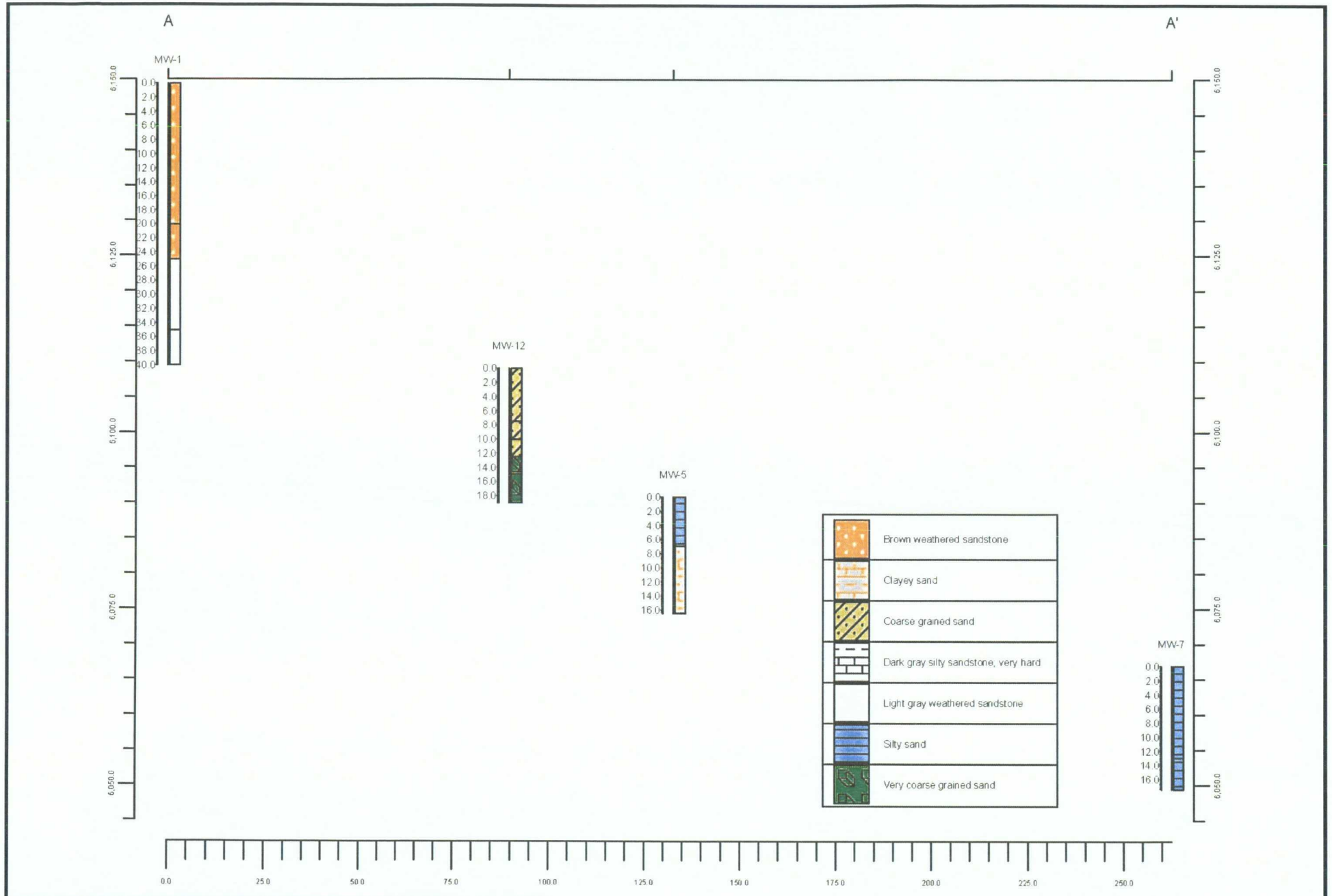

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Figure 4. Hampton #4M Cross Section
San Juan, County, New Mexico

TABLES

Date	Event
11/22/1983	Hampton #4M spudded by Southland Royalty Company.
02/06/1984	Southland Royalty Company completed Hampton #4M in the Basin pool (Dakota Formation).
10/11/1984	Southland Royalty Company completed Hampton #4M in the Blanco pool of the Mesaverde Formation on October 11, 1984 (second production zone).
03/01/1990	Southland entered into an agreement with Gas Company of New Mexico (predecessor to Public Service Company of New Mexico -- PNM) to sell production from the Hampton No. 4M well. PNM installed and operated dehydration equipment in the northern-most portion of the site as part of the contract.
06/30/1995	Williams Field Services purchased the dehydration equipment from PNM.
01/02/1996	Burlington Resources completed the acquisition of Southland Royalty Company.
04/23/1996	PNM discovered potential hydrocarbon contamination beneath PNM's dehydrator discharge pit during a site assessment. PNM subsequently began pit closure work.
12/16/1996	While drilling to determine the vertical extent of hydrocarbon contamination beneath a former unlined, earthen dehydrator discharge pit located on the north end of the Hampton No. 4M well pad, PNM discovered hydrocarbon-impacted groundwater. Total BTEX in groundwater was 20,620 parts per billion (ppb) and benzene was 3,840 ppb (equivalent to micrograms per liter (ug/L)).
01/13/1997	PNM notified the New Mexico Oil Conservation Division (NMOCD) in writing of the discovery of groundwater contamination at the site.
01/28/1997	PNM gauged monitor well MW-2 and discovered approximately 4 feet of light, non-aqueous phase liquid (LNAPL).
01/31/1997	PNM installed two monitor wells up-gradient from PNM's former pit. One of the wells, adjacent to Burlington's equipment, encountered contaminated groundwater.
01/31/1997	PNM installed MW-3 and MW-4.
02/04/1997	PNM hosted an on-site meeting with NMOCD and Burlington to discuss remediation options.
04/14/1997	During a site visit, Burlington discovered a surface seep north of the well pad with LNAPL discharging to a small drainage area. Burlington notified NMOCD and PNM on the same day.

Date	Event
04/16/1997	Burlington hosted an on-site meeting with PNM and NMOCD to discuss the seep. NMOCD asked for immediate action to contain the seep. The group agreed to install a collection trench.
04/17/1997	Burlington constructed a collection trench between the seep and the well head. A sandstone shelf was encountered 6 to 8 feet bgs. Black to grey saturated soil was found above the sandstone. PID readings were between 1,000 - 2,000 PPM.
04/30/1997	Burlington attempted to excavate the area of the former tank discharge pit. Sandstone was encountered at one foot below the bottom of the pit. The excavator could not penetrate the sandstone. There was no indication of hydrocarbon contamination in this area. Burlington subsequently excavated 9 to 10 test holes in the vicinity of the well pad. No hydrocarbon contaminated areas were found in any of the test holes.
06/05-06/06/1997	Burlington advanced 7 boreholes around the well pad. Each of the 7 boreholes was subsequently completed as a temporary monitoring well.
08/01/1997	NMOCD issued a letter to PNM and Burlington. PNM was directed to assess contamination downgradient of its pit and Burlington was directed to submit an assessment plan for the portion of the site upgradient of the PNM disposal pit.
November 1997	PNM installed an LNAPL recovery well system adjacent to PNM's former pit.
12/31/1997	Hydrocarbon impacted soil was excavated from December 1997 to 2000 at various locations to the depth of groundwater. Potassium permanganate applied to excavations.
January 1998	PNM initiated LNAPL recovery.
02/23/1998	Mr. J. Burton Everett, the owner of property downgradient from the site, wrote a letter to the NMOCD, expressing concern over the migration of hydrocarbons onto his property.
03/13/1998	The NMOCD sent a letter to PNM directing the removal, within 30 days, of the remaining source areas of LNAPL in the vicinity and immediately downgradient of PNM's former pit.

Date	Event
April 1998	PNM appealed NMOCD's directive and sought a stay, pending a decision on its appeal.
April/May 1998	LNAPL was discovered upgradient from the dehydration pit and Burlington installed two additional monitoring wells.
08/20/1998	NMOCD denied PNM's request for a stay (filed in April 1998).
09/01/1998	NMOCD issued a letter to PNM and Burlington requesting that the companies work together to remediate the site and complete the downgradient extent of hydrocarbon contamination.
10/28/1998	Burlington responded to NMOCD's letter of September 1, 1998. The letter stated that if PNM did not begin remediation of PNM's former pit by October 30, 1998, Burlington would begin remediating the entire site, starting at PNM's former pit and working south to Burlington's former pit.
11/06/1998	Burlington Resources submitted a Sundry Notice to the BLM requesting permission to stockpile clean soil associated with remediation activities.
November 1998	PNM's appeal of NMOCD's directive was heard at a Division examiner hearing. NMOCD entered Order No. R-11134 and PNM appealed.
November 1998	PNM's LNAPL recovery efforts were terminated as a result of Burlington's removal of PNM's system during excavation activities.
04/14/1999	NMOCD sampled a groundwater seep to the northwest of the well pad. The analytical results revealed benzene in excess of New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standards.

Date	Event
03/24/2000	NMOCD issued Order No. R-11134-A to Burlington and PNM. The Order 1) denied the application by PNM for rescinding the prior directive, 2) declared Burlington the responsible party for any contamination south and upgradient fo the PNM disposal pit, 3) declared PNM the responsible party for any soil contamination remaining below its former pit, 4) directed PNM and Burlington to share responsibility of remediation for any GW or soil contamination, other than soil contamination below the former PNM pit, remaining north and downgradient of the property for which Burlington is responsible, 5) directed PNM and Burlington to submit remediation plans to NMOCD, 6) directed both PNM and Burlington to begin remedial activities within 10 days of NMOCD approval of the plans, 7) directed PNM to have oversight and reporting responsibilities for GW remediation in the area north and downgradient of the property for which Burlington is responsible, and 8) retained jurisdiction for NMOCD for any further orders as may be necessary.
01/24/2008	Site was sampled and mapped in November 2007 and then sampled again in January 2008.
March 2008 – January 2009	Tetra Tech Inc. of Albuquerque, NM on site to collect quarterly groundwater samples in March 2008, July 2008, October 2008 and January 2009
August 6, 2009	Tetra Tech submits the 2008 Annual Report to the New Mexico Oil Conservation Division (OCD) via FedEx (hardcopy) and ConocoPhillips Company (electronically).
September 24, 2009	Tetra Tech on site to collect annual groundwater samples.

Table 2. ConocoPhillips Company Hampton 4M - Groundwater Elevation Summary

Monitor Well	TOC Elevation (ft AMSL)	Sample Date	Depth to Water (ft)	GW Elevation (ft AMSL)
MW-1	6149.42	11/8/2007	42.81	6106.61
		1/17/2008	42.96	6106.46
		3/19/2008	42.93	6106.49
		7/22/2008	42.74	6106.68
		10/23/2008	32.80	6116.62
		1/21/2009	42.90	6106.52
		9/24/2009	43.09	6106.33
MW-5	6090.83	11/8/2007	16.52	6074.31
		1/17/2008	15.65	6075.18
		3/19/2008	13.64	6077.19
		7/22/2008	15.72	6075.11
		10/23/2008	16.53	6074.30
		1/21/2009	16.04	6074.79
		9/24/2009	16.89	6073.94
TMW-1	No survey - DTW only	11/8/2007	19.06	NA
		1/17/2008	19.37	NA
		3/19/2008	18.55	NA
		7/22/2008	18.10	NA
		10/23/2008	19.19	NA
		1/21/2009	19.25	NA
		9/24/2009	19.61	NA
MW-7	6066.91	11/8/2007	20.22	6046.69
		1/17/2008	20.50	6046.41
		3/19/2008	20.02	6046.89
		7/22/2008	19.29	6047.62
		10/23/2008	19.95	6046.96
		1/21/2009	20.44	6046.47
		9/24/2009	20.55	6046.36
MW-9	6122.52	11/8/2007	22.91	6099.61
		1/17/2008	22.76	6099.76
		3/19/2008	22.38	6100.14
		7/22/2008	23.10	6099.42
		10/23/2008	23.02	6099.50
		1/21/2009	22.85	6099.67
		9/24/2009	23.64	6098.88

Table 2. ConocoPhillips Company Hampton 4M - Groundwater Elevation Summary

Monitor Well	TOC Elevation (ft AMSL)	Sample Date	Depth to Water (ft)	GW Elevation (ft AMSL)
MW-11	6015.75	11/8/2007	56.00	5959.75
		1/17/2008	55.86	5959.89
		3/19/2008	55.88	5959.87
		7/22/2008	55.71	5960.04
		10/23/2008	55.91	5959.84
		1/21/2009	55.75	5960.00
		9/24/2009	56.02	5959.73
MW-12	6109.02	11/8/2007	20.46	6088.56
		1/17/2008	20.24	6088.78
		3/19/2008	19.85	6089.17
		7/22/2008	20.54	6088.48
		10/23/2008	20.61	6088.41
		1/21/2009	20.37	6088.65
		9/24/2009	21.23	6087.79
MW-15	No survey - DTW only	11/8/2007	18.03	NA
		1/17/2008	18.20	NA
		3/19/2008	17.60	NA
		7/22/2008	17.79	NA
		10/23/2008	18.01	NA
		1/21/2009	18.20	NA
		9/24/2009	18.33	NA
MW-16	No survey - DTW only	11/8/2007	25.03	NA
		1/17/2008	24.88	NA
		3/19/2008	24.37	NA
		7/22/2008	25.00	NA
		10/23/2008	25.57	NA
		1/21/2009	24.97	NA
		9/24/2009	25.75	NA

Explanation

ft = feet
AMSL = Above mean sea level
DTW = Depth to water
NA = Not available

Table 3. ConocoPhillips Company Hampton 4M - Groundwater Laboratory Analytical Results Summary

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(µg/L)			
MW-1	10/30/1997	2.4	2.3	<0.2	1.1
	1/12/1998	4.3	3.3	0.2	1.0
	4/14/1998	1.0	1.3	<0.5	<0.5
	7/1/1998	1.3	1.0	<0.5	3.7
	10/5/1998	<1.0	<1.0	<1.0	<3.0
	11/9/1998	No sample collected			
	1/27/1999	0.8	0.9	<0.5	<1.5
	5/5/1999	No sample collected			
	7/12/1999	1.1	0.5	<0.5	<0.5
	8/17/1999	No sample collected			
	10/21/1999	No sample collected			
	1/27/2000	No sample collected			
	6/13/2000	No sample collected			
	6/26/2001	No sample collected			
	9/18/2001	No sample collected			
	12/18/2002	No sample collected			
	3/22/2002	No sample collected			
	9/24/2003	0.9J	1	U	0.4J
	12/15/2003	1.1	0.9J	U	U
	3/15/2004	U	U	U	U
	6/21/2004	U	U	U	U
	9/29/2004	U	U	U	U
	12/31/2004	U	0.9J	U	3.3J
	3/22/2005	U	0.3J	U	U
	6/23/2005	Missing Lab Data			
	10/24/2005	U	U	U	U
	12/12/2005	U	0.7J	U	0.6J
	3/20/2006	1.1	0.9J	U	0.6J
	6/21/2006	0.3J	1.4	0.4J	1.8J
	10/18/2006	U	0.2	0.2	1.3
	12/12/2006	U	0.2	0.2	1.4
	3/26/2007	<0.3 U	0.3 J	0.2 J	0.4 J
	6/26/2007	<0.3 U	<0.2 U	<0.2 U	<0.6 U
	11/8/2007	<0.5 U	<0.7 U	<0.8 U	<0.8 U
	1/15/2008	<0.5 U	<0.7 U	<0.8 U	<0.8 U
	3/19/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	7/22/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	10/23/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	1/21/2009	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	9/24/2009	<1.0U	<1.0U	<1.0U	<1.0U

Table 3. ConocoPhillips Company Hampton 4M - Groundwater Laboratory Analytical Results Summary

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(µg/L)			
MW-5	10/29/1997	5934	10024	709	8188
	1/12/1998	**7521**	**11213**	**779**	**8436**
	4/14/1998	**7000**	**11000**	720	**7800**
	7/1/1998	**6500**	**10000**	**780**	**7500**
	10/5/1998	**6800**	**8400**	740	**6900**
	11/9/1998	**6200**	**8200**	670	**6500**
	1/27/1999	**6400**	**8900**	660	**6700**
	5/5/1999	**6800**	**9800**	**900**	**7800**
	5/26/1999	**6600**	**10000**	650	**8100**
	7/12/1999	**6300**	**10000**	**750**	**8800**
	8/17/1999	**5400**	**9800**	670	**7500**
	8/17/1999	**5900**	**8900**	500	**6200**
	10/21/1999	**5200**	**9600**	650	**6900**
	1/27/2000	**4700**	**10000**	680	**7400**
	6/13/2000	**8400**	**19000**	**1700**	**22000**
	3/29/2001	**3890**	**9600**	640	**7730**
	6/26/2001	**3800**	**11000**	700	**9000**
	9/18/2001	**4100**	**11000**	**760**	**10000**
	12/18/2001	**3200**	**9700**	600	**7800**
	3/22/2002	**3500**	**10000**	**830**	**8500**
	6/28/2002	**3700**	**12000**	**760**	**10000**
	9/23/2002	**3000**	**9800**	640	**8300**
	12/31/2002	**2900**	**8900**	580	**7300**
	3/27/2003	**1220**	**4870**	487	**6010**
	6/27/2003	**2040**	**8550**	640	**8050**
	9/24/2003	**2110**	**9090**	700	**9200**
	12/15/2003	**2150**	**9240**	720	**8810**
	3/15/2005	**1370**	**8100**	660	**8710**
	6/21/2004	**1610**	**8740**	640	**8220**
	9/29/2004	**1710**	**7250**	670	**8090**
	12/31/2004	**1820**	**9150**	730	**9030**
	3/22/2005	**420**	**1420**	110	**1160**
	6/23/2005	Missing Lab Data			
	10/24/2005	**1070**	**6660**	610	**7620**
	12/12/2005	**900**	**5930**	520	**6280**
	3/20/2006	**820**	**6270**	510	**6040**
	6/21/2006	**930**	**6110**	580	**6690**
	10/18/2006	**690**	**5140**	500	**5870**
	12/18/2006	**640**	**5090**	500	**5610**
	3/26/2007	**660**	**6470**	530	**5450**
	6/26/2007	**740**	**8070**	640	**7320**
	11/8/2007	**410**	**4800**	390	**5000**
	1/17/2008	**440**	**6400**	510	**6100**
	3/19/2008	**370**	**2900**	240	**2570**
	7/22/2008	**340**	**6100**	550	**6400**
	10/23/2008	**270**	**6200**	440	**6300**
	1/21/2009	**250**	**3800**	510	**5200**
	9/24/2009	**190**	**4300**	470	**5100**

Table 3. ConocoPhillips Company Hampton 4M - Groundwater Laboratory Analytical Results Summary

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(µg/L)			
MW-7	1/12/1998	**780**	246	258	**3942**
	4/14/1998	**820**	340	190	**2450**
	7/1/1998	**950**	440	200	**3020**
	10/5/1998	**1600**	**930**	180	**1530**
	11/9/1998	**1800**	**1000**	160	**1240**
	1/27/1999	**2100**	**1000**	160	**1050**
	5/5/1999	**210**	3	30	147
	5/26/1999	**190**	7	32	150
	7/12/1999	**130**	7	22	101
	8/17/1999	No sample collected			
	10/21/1999	**260**	11	15	89
	1/27/2000	**670**	580	54	**680**
	6/17/2000	**420**	**1100**	75	**1400**
	3/29/2001	**830**	150	320	**1790**
	6/26/2001	**540**	330	250	**1410**
	9/18/2001	**870**	560	320	**2020**
	12/18/2001	**400**	30	160	**885**
	3/22/2002	**180**	U	78	260
	6/28/2002	**89**	1	41	79
	9/23/2002	**80**	3	31	18.89
	12/31/2002	**160**	2.2	74	31.5
	3/27/2003	**195**	0.4	44.2	109
	6/27/2003	**300**	1.4 J	117	461.6
	9/24/2003	**90**	12	2	**694**
	12/15/2004	**150**	4J	115	549
	3/15/2004	**56**	1J	6	3
	6/21/2004	**180**	U	55	58J
	9/29/2004	**163**	0.9J	54.5	69.8
	12/31/2004	**94**	3J	10	24J
	3/22/2005	**20.8**	U	2.4	4.8
	6/23/2005	Missing Lab Data			
	10/24/2005	**65.2**	0.7J	2	2.7J
	12/12/2005	**66.2**	1J	8.7	8.5J
	3/20/2006	**72**	U	12.6	16.9
	6/21/2006	**89.9**	10.6	4.8	14.5
	10/18/2006	**31.9**	0.4J	1.8	4.1
	12/12/2006	**29.4**	1.5	3.1	5.7
	3/26/2007	**11.5**	1.0	0.6 J	0.8 J
	6/26/2007	**56**	0.4 J	17.7	1.3
	11/8/2007	**44**	<0.7 U	2.0	<0.8 U
	1/17/2008	**17**	<0.7 U	3.0	<0.8 U
	3/19/2008	5	<5.0 U	<5.0 U	<5.0 U
	7/22/2008	**32**	<5.0 U	12.0	7
	10/23/2008	**17**	<5.0 U	<5.0 U	<5.0 U
	1/21/2009	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	9/24/2009	3.7	<1.0U	<1.0U	<1.0U

Table 3. ConocoPhillips Company Hampton 4M - Groundwater Laboratory Analytical Results Summary

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(µg/L)			
MW-9	7/1/1998	**12.0**	<1.0	<1.0	<3.0
	10/5/1998	0.8	<0.5	<0.5	2.2
	11/9/1998	**73.0**	<0.5	2.2	1.6
	1/27/1999	**120.0**	<0.5	2.5	1.8
	5/5/1999	**120.0**	<0.5	1.6	0.8
	5/26/1999	**140.0**	<0.5	1.5	<0.5
	5/26/1999	**290.0**	<0.5	0.6	<1.5
	7/12/1999	**320.0**	<0.5	0.6	<1.5
	8/17/1999	**130.0**	U	U	U
	10/21/1999	<0.5	1.9	<0.5	2.5
	1/27/2000	<0.2	<0.2	<0.2	<0.2
	6/13/2000	<0.5	<0.5	<0.5	<1.0
	3/29/2001	<0.5	<0.5	<0.5	<1.0
	6/26/2001	<0.5	<0.5	<0.5	<1.0
	9/18/2001	U	U	U	U
	12/18/2001	U	U	U	U
	3/22/2002	U	U	U	U
	6/28/2002	U	U	U	U
	9/23/2002	0.4 J	U	U	U
	3/27/2003	U	U	U	U
	6/27/2003	0.5J	U	U	U
	9/24/2003	U	U	U	U
	12/15/2003	U	U	U	U
	3/15/2004	U	U	U	U
	6/21/2004	U	0.4J	U	0.7J
	9/29/2004	U	U	U	U
	12/31/2004	Missing Lab Data			
	3/22/2005	U	U	U	U
	6/23/2005	U	0.3J	U	U
	12/12/2005	No sample collected			
	3/20/2006	U	U	U	U
	6/21/2006	U	U	U	U
	10/18/2006	U	U	U	0.3J
	12/12/2006	0.3J	0.7J	0.3J	1.2J
	3/26/2007	<0.3 U	<0.2 U	<0.2 U	<0.6 U
	6/26/2007	<0.3 U	<0.2 U	<0.2 U	<0.6 U
	11/8/2007	<0.5 U	<0.7 U	<0.8 U	<0.8 U
	1/17/2008	<0.5 U	<0.7 U	<0.8 U	<0.8 U
	3/19/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	7/22/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	10/23/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	1/21/2009	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	9/24/2009	<1.0U	<1.0U	<1.0U	<1.0U

Table 3. ConocoPhillips Company Hampton 4M - Groundwater Laboratory Analytical Results Summary

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(µg/L)			
MW-11	1/27/1999	<0.5	2.5	0.7	13.1
	5/5/1999	<0.5	<0.5	<0.5	<1.5
	5/26/1999	0.8	1.7	<0.5	1.1
	7/12/1999	No sample collected			
	8/17/1999	No sample collected			
	10/21/1999	<0.5	<0.5	<0.5	<1.5
	1/27/2000	<0.5	<0.5	<0.5	<0.5
	6/13/2000	<0.5	<0.5	<0.5	0.9
	3/29/2001	<0.2	<0.2	<0.2	<0.2
	6/26/2001	<0.5	<0.5	<0.5	<1.0
	9/18/2001	<0.5	<0.5	<0.5	<1.0
	12/18/2001	<0.5	<0.5	<0.5	<1.0
	12/19/2001	U	U	U	U
	12/20/2001	U	U	U	U
	12/21/2001	U	U	U	U
	12/22/2001	U	U	U	U
	5/24/2003	U	U	U	U
	6/27/2003	0.4J	0.3J	U	0.4J
	9/24/2003	U	U	U	U
	12/15/2003	0.5J	U	U	U
	3/15/2004	U	U	U	U
	6/210/04	U	U	U	0.5J
	9/29/2004	U	U	U	U
	12/31/2004	U	U	U	U
	3/22/2005	U	U	U	U
	6/23/2005	Missing Lab Data			
	10/24/2005	U	U	U	U
	12/12/2005	U	0.3J	U	U
	3/20/2006	U	U	U	U
	6/21/2006	U	0.3J	U	0.8J
	10/18/2006	U	0.3J	0.4J	1.2J
	12/12/2006	U	U	U	0.3J
	3/26/2007	<0.3 U	<0.2 U	<0.2 U	<0.6 U
	6/26/2007	<0.3 U	<0.2 U	<0.2 U	<0.6 U
	11/8/2007	<0.5 U	<0.7 U	<0.8 U	<0.8 U
	1/17/2008	<0.5 U	<0.7 U	<0.8 U	<0.8 U
	3/19/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	7/22/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	10/23/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	1/21/2009	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	9/24/2009	<1.0U	<1.0U	<1.0U	<1.0U

Table 3. ConocoPhillips Company Hampton 4M - Groundwater Laboratory Analytical Results Summary

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(µg/L)			
MW-12	5/5/1999	**790**	**840**	260	**2880**
	5/5/1999	**1200**	**13000**	**5100**	**68000**
	5/26/1999	**1900**	**820**	200	**1720**
	5/26/1999	**1800**	640	160	**1600**
	7/12/1999	**4500**	**760**	400	**3100**
	7/12/1999	**4600**	730	390	**3080**
	8/17/1999	**4800**	**5000**	320	**3390**
	8/17/1999	**5900**	**6100**	390	**4100**
	10/21/1999	**5600**	650	540	**2890**
	1/27/2000	**4100**	550	430	**2379**
	6/13/2000	**5000**	**1300**	490	**2700**
	3/29/2001	**5170**	**1790**	366	**2620**
	6/26/2001	**4800**	**1900**	390	**2560**
	9/18/2001	**5100**	**2400**	430	**2820**
	12/18/2001	**4000**	**1500**	320	**1880**
	3/22/2002	**3300**	**930**	290	**1270**
	6/28/2002	**4200**	**1800**	410	**1940**
	9/23/2002	**3800**	**1500**	310	**1510**
	12/31/2002	**3600**	**840**	280	**1010**
	3/27/2003	Well dry - No samples collected			
	5/24/2003	**3990**	**2230**	299	**1470**
	6/27/2003	**5290**	**2750**	360	**1600**
	9/24/2003	**4600**	**1690**	290	**1150**
	12/15/2003	**4200**	**1360**	240	**1150**
	3/15/2004	**2090**	**1120**	300	**1250**
	6/21/2004	**3870**	**1820**	280	**1500**
	6/29/2004	**5140**	**2220**	240	**1280**
	12/31/2004	**4160**	**1220**	250	**1150**
	3/22/2005	**2380**	**1100**	130	**710**
	6/23/2005	Missing Lab Data			
	10/24/2005	**1350**	150	80	330
	12/16/2005	**2380**	422	111	341
	3/20/2006	**2100**	210	71	225
	6/21/2006	**2270**	385	85	355
	10/18/2006	**1740**	477	112	399
	12/12/2006	**2400**	**1110**	142	**668**
	3/26/2007	**4130**	**1680**	340	**1180**
	6/26/2007	**1520**	432	118	340
	11/8/2007	**780**	310	43	170
	1/17/2008	**2000**	**1400**	180	**790**
	3/19/2008	**1600**	560	160	530
	7/22/2008	**730**	22	14	21
	10/23/2008	**500**	30	22	40
	1/21/2009	**1100**	430	110	410
	9/24/2009	**610**	8.3	10	19.5

Table 3. ConocoPhillips Company Hampton 4M - Groundwater Laboratory Analytical Results Summary

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(µg/L)			
MW-15	10/21/1999	<0.5	1.2	<0.5	1.5
	1/27/2000	<0.5	<0.5	<0.5	<0.5
	6/13/2000	<0.5	<0.5	<0.5	<0.5
	3/29/2001	<0.2	<0.2	<0.2	<0.2
	6/26/2001	<0.5	<0.5	<0.5	<0.5
	9/18/2001	<0.5	<0.5	<0.5	<0.5
	12/18/2001	<0.5	<0.5	<0.5	<0.5
	3/22/2002	U	U	U	U
	6/28/2002	U	U	U	U
	9/23/2002	U	U	U	U
	12/31/2002	U	U	U	U
	3/27/2003	U	0.3J	U	0.9J
	6/27/2003	0.4J	U	U	U
	9/24/2003	U	U	U	U
	12/15/2004	0.7J	U	U	U
	3/15/2004	U	0.3J	U	U
	6/21/2004	U	U	U	U
	9/29/2004	U	U	U	U
	12/31/2004	U	0.9J	0.3J	1.4J
	3/22/2005	U	U	U	U
	6/23/2005	Missing Lab Data			
	10/24/2005	U	U	U	U
	12/12/2005	U	0.3J	U	0.4J
	3/20/2006	U	U	U	U
	6/21/2006	0.7J	U	0.3J	U
	10/18/2006	U	0.3J	U	0.2J
	12/12/2006	U	U	U	U
	3/26/2007	<0.3 U	<0.2 U	<0.2 U	<0.6 U
	6/26/2007	<0.3 U	0.5 J	<0.2 U	<0.6 U
	11/8/2007	<0.5 U	<0.7 U	<0.8 U	<0.8 U
	1/17/2008	<0.5 U	<0.7 U	<0.8 U	<0.8 U
	3/19/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	7/22/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	10/23/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	1/21/2009	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	9/24/2009	<1.0U	<1.0U	<1.0U	<1.0U

Table 3. ConocoPhillips Company Hampton 4M - Groundwater Laboratory Analytical Results Summary

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(µg/L)			
MW-16	10/21/1999	**220**	300	5	142
	10/21/1999	**214**	268	4	151
	1/27/2000	**1600**	170	56	225
	6/13/2000	**8700**	430	680	**2200**
	6/26/2001	**9300**	**1100**	**810**	**3410**
	9/18/2001	**11000**	**6400**	590	**6400**
	12/18/2001	**9900**	**6900**	570	**7400**
	3/22/2003	**10000**	**6600**	**1100**	**7400**
	6/28/2002	**11000**	**7000**	**770**	**5700**
	9/23/2002	**8900**	**9900**	610	**8500**
	12/31/2002	**8800**	**7900**	**770**	**7400**
	3/27/2003	**10400**	**11200**	**840**	**8670**
	5/27/2003	No sample collected			
	9/24/2003	**10300**	**15400**	**870**	**10590**
	12/15/2004	**9640**	**12600**	720	**1550**
	3/15/2004	**9200**	**16000**	**1310**	**12000**
	6/21/2004	**8040**	**18100**	**2450**	**18580**
	9/29/2004	**8330**	**14000**	**760**	**8230**
	12/31/2004	**8340**	**17100**	**1550**	**18830**
	3/2822005	**4140**	**5810**	**760**	**10480**
	6/23/2005	Missing Lab Data			
	10/24/2005	**6280**	**9800**	670	**6910**
	12/12/2005	**6940**	**11500**	**750**	**8060**
	3/20/2006	**6820**	**11500**	**830**	**8550**
	6/21/2006	**6640**	**11200**	**690**	**7570**
	10/18/2006	**5700**	**10200**	620	**6520**
	12/12/2006	**4600**	**10000**	550	**6830**
	3/26/2007	**2970**	**2820**	260	**5220**
	6/26/2007	**5230**	**9110**	**770**	**7760**
	11/8/2007	**5500**	**12000**	570	**6200**
	1/17/2008	**4600**	**9100**	550	**5600**
	3/19/2008	**5500**	**9600**	510	**6900**
	7/22/2008	**3600**	**6100**	430	**4500**
	10/23/2008	**4700**	**9100**	480	**6600**
	1/21/2009	**4200**	**7500**	480 J	**6900**
	9/24/2009	**3200**	**4600**	340	**3500**

Table 3. ConocoPhillips Company Hampton 4M - Groundwater Laboratory Analytical Results Summary

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(µg/L)			
TMW-1	1/27/2000	**930**	**1400**	350	**6700**
	6/13/2000	**2400**	**3400**	550	**9100**
	6/26/2001	**1100**	**3500**	330	**5500**
	9/18/2001	No sample collected			
	12/18/2001	No sample collected			
	3/22/2002	No sample collected			
	6/28/2002	No sample collected			
	9/23/2002	No sample collected			
	12/31/2002	No sample collected			
	3/27/2003	No sample collected			
	5/23/2003	**830**	123	107	**1004.7**
	6/27/2003	**474**	36.6	59.6	490.7
	9/24/2003	**292**	139	17	221
	12/15/2003	**55.9**	1.3	3.9	42.5
	3/15/2004	No sample collected			
	6/21/2004	**40.6**	U	14.1	14.7
	9/29/2004	**410**	8.7	59.6	458.5
	12/31/2004	3J	5J	1J	11J
	3/22/2005	**67.8**	13.3	8.1	101.7
	6/23/2005	Missing Lab Data			
	10/24/2005	**483**	705	45	328
	12/12/2005	**122**	317	19	160
	3/20/2006	**71**	82	16	151
	6/21/2006	**159**	65.7	56.9	360
	10/18/2006	6.4	1.6	2.1	13.8
	12/12/2006	No sample collected			
	3/26/2007	NA	NA	NA	NA
	6/26/2007	**269**	2.6	4.9	15.7
	11/8/2007	**300**	12	6	38
	1/17/2008	0.8	<0.7 U	<0.8 U	1
	3/19/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	7/22/2008	**130**	29	11	22
	10/23/2008	NA	NA	NA	NA
	1/21/2009	**13**	<5.0 U	<5.0 U	<5.0 U
	9/24/2009	NS	NS	NS	NS

Table 3. ConocoPhillips Company Hampton 4M - Groundwater Laboratory Analytical Results Summary

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(µg/L)			
Seep	7/1/1998	1.6	0.7	0.6	0.36
	4/14/1999	**40.0**	2.2	2.1	19
	10/21/1999	**65.0**	230	11.0	434
	3/29/2001	**11.6**	<0.2	0.7J	25
	6/26/2001	<0.5	<0.5	<0.5	<1.0
	9/18/2001	<0.5	<0.5	<0.5	<1.0
	12/18/2001	<0.5	<0.5	<0.5	<1.0
	3/22/2002	5.9	U	0.8	3.4
	6/28/2002	U	U	U	U
	9/23/2002	U	U	U	U
	12/31/2002	0.7	U	U	U
	3/27/2003	6.3	0.2J	1.8	10
	9/24/2003	U	0.3J	U	U
	12/15/2003	0.4J	0.3J	U	U
	3/15/2004	U	U	U	U
	6/21/2004	U	U	U	U
	9/29/2004	U	U	U	U
	12/31/2004	U	0.2J	U	0.4J
	3/28/2005	U	U	U	U
	6/23/2005	Missing Lab Data			
	10/24/2005	U	J	U	U
	12/12/2005	U	0.5J	0.3J	0.9J
	3/20/2006	U	U	U	U
	6/21/2006	4	12.9	0.8J	15
	10/18/2006	U	0.5J	0.3J	1.4J
	12/12/2006	U	U	U	U
	3/26/2007	<0.3 U	0.3 J	<0.2 U	<0.6 UJ
	6/26/2007	<0.3 U	<0.2 U	<0.2 U	<0.6 U
	11/8/2007	<0.5 U	<0.7 U	<0.8 U	<0.8 U
	1/17/2008	NA	NA	NA	NA
	3/19/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	7/22/2008	NA	NA	NA	NA
	10/23/2008	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	1/21/2009	<5.0 U	<5.0 U	<5.0 U	<5.0 U
	9/24/2009	<1.0U	<1.0U	<1.0U	<1.0U
NMWQCC Standards		**10 (µg/L)**	**750 (µg/L)**	**750 (µg/L)**	**620 (µg/L)**

Explanation

J = Analyte concetration detected at a value between MDL and PQL
MDL = Method Detection Limit
NA = Not Analyzed
NS = Not Sampled
NMWQCC = New Mexico Water Quality Control Commission
PQL = Practical Quantitation Limit
U = Analyte was analyzed for but not detected at the indicated MDL
µg/L = micrograms per liter (parts per billion)

APPENDIX A

FIELD SAMPLING FORMS

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name Hampton 4M

Project No.

Site Location San Juan County, Hwy 173 near Aztec, NM

Site/Well No. MW-1

Coded/ Replicate No.

Date 9/24/09

Weather Cool, lt. breeze

Time Sampling Began 1018

Time Sampling Completed

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface 43.69

MP Elevation

Total Sounded Depth of Well Below MP ~~49.54~~ 49.47

Water-Level Elevation

Held ____ Depth to Water Below MP 43.09

Diameter of Casing 2"

Wet ____ Water Column in Well 6.38

Gallons Pumped/Bailed Prior to Sampling

Gallons per Foot 0.16

Gallons in Well 1.02x3 = 3.06 gallons

Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)
1027	12.89	4.06	3162	2.055	3.77	35.8

TURB 156.1

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl

Remarks

Sampling Personnel

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 Hampton 4M

Project No.

Site Location San Juan County, Hwy 173 near Aztec, NM

Site/Well No. MW-5

Coded/ Replicate No.

Date 9/24/09

Weather hot, 75° breezy

Time Sampling Began 1455

Time Sampling Completed 1500

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface

MP Elevation

Total Sounded Depth of Well Below MP 20.19

Water-Level Elevation

Held ____ Depth to Water Below MP 16.89

Diameter of Casing 2"

Wet ____ Water Column in Well 3.3

Gallons Pumped/Bailed Prior to Sampling

Gallons per Foot 0.16

Gallons in Well 0.52 x 3 = 1.56

Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

VOL 1/4

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)
1459	16.50	6.67	4358	2.835	3.88	-294.8

Turb 63.48

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl

Remarks reduced H2S odor, water is gray, light sheen

Sampling Personnel

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

TETRATECH, INC.

WATER SAMPLING FIELD FORM

Project Name Hampton 4M

Project No.

Site Location San Juan County, Hwy 173 near Aztec, NM

Site/Well No. MW-7

Coded/ Replicate No.

Date 9/24/09

Weather

Time Sampling Began

Time Sampling Completed 1505

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface

MP Elevation

Total Sounded Depth of Well Below MP ~~50~~ 21.2

Water-Level Elevation

Held ____ Depth to Water Below MP 20.55

Diameter of Casing 2"

Wet ____ Water Column in Well

Gallons Pumped/Bailed Prior to Sampling

Gallons per Foot 0.16

Gallons in Well

Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm^3)	TDS (g/L)	DO (mg/L)	ORP (mV)

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl

Remarks

Sampling Personnel

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 Hampton 4M

Project No.

Site Location San Juan County, Hwy 173 near Aztec, NM

Site/Well No. MW-9

Coded/ Replicate No.

Date 9/24/09

Weather 70°, breezy

Time Sampling Began 1105

Time Sampling Completed 1120

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface

MP Elevation

Total Sounded Depth of Well Below MP ~~34.55~~ 32.35

Water-Level Elevation

Held ____ Depth to Water Below MP 23.64

Diameter of Casing 2"

Wet ____ Water Column in Well 8.71

Gallons Pumped/Bailed Prior to Sampling

Gallons per Foot 0.16

Gallons in Well 1.39 x 3 = 4.17

Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Vol	Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)	Turb
1	1110	14.89	5.59	3945	2.564	5.93	197.5	181.0
2.8	1114	14.50	5.88	3974	2.583	2.40	155.6	108.7
4.2	1118	14.57	5.94	3973	2.580	2.12	150.9	

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl

Remarks Wellhead is venting

Sampling Personnel

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 Hampton 4M

Page 5 of 10

Project No.

Site Location San Juan County, Hwy 173 near Aztec, NM

Site/Well No. MW-11

Coded/ Replicate No.

Date 9/24/09

Weather Cool, Sunny

Time Sampling Began 1159

Time Sampling Completed 1250

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface

MP Elevation

Total Sounded Depth of Well Below MP ~~68.5~~ 68.77

Water-Level Elevation

Held ____ Depth to Water Below MP 56.02

Diameter of Casing 2"

Wet ____ Water Column in Well 12.7

Gallons Pumped/Bailed Prior to Sampling 6.09

Gallons per Foot 0.16

Gallons in Well 2.03 x 3 = 6.09

Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)	MRB
1209	14.23	6.15	2884	1.875	3.21	57.7	1031
1227	14.12	6.28	2858	1.877	2.35	24.1	44.82
1243	14.18	6.28	2880	1.872	3.11	16.5	26.56

4

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl

Remarks Reddish water, clearing @ 3 volumes

Sampling Personnel GD, AM

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 Hampton 4M

Project No.

Site Location San Juan County, Hwy 173 near Aztec, NM

Site/Well No. MW-12

Coded/ Replicate No.

Date 9/24/09

Weather 75°, breezy

Time Sampling Began 1523 1518

Time Sampling Completed

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface

MP Elevation

Total Sounded Depth of Well Below MP 30.19

Water-Level Elevation

Held ____ Depth to Water Below MP 21.23

Diameter of Casing 2"

Wet ____ Water Column in Well 8.96

Gallons Pumped/Bailed Prior to Sampling

Gallons per Foot 0.16

Gallons in Well 1.43 x 3 = 4.29

Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)	TURB
1520	14.66	5.9	3433	223	3.34	-241.6	46.23
1526	14.31	6.01	3487	2.266	2.06	-232.6	48.34
1528	14.26	6.07	3479	2.262	2.28	-240.8	39.59

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl

Remarks

Sampling Personnel GD, AM

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 Hampton 4M — Page 7 of 10

Project No.

Site Location San Juan County, Hwy 173 near Aztec, NM

Site/Well No. MW-15 — Coded/ Replicate No. — Date 9/24/09

Weather Warm, 70° — Time Sampling Began 1040 — Time Sampling Completed 1055

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface — MP Elevation

Total Sounded Depth of Well Below MP ~~27.29~~ 24.84 — Water-Level Elevation

Held ____ Depth to Water Below MP 18.33 — Diameter of Casing 2"

Wet ____ Water Column in Well 6.51 — Gallons Pumped/Bailed Prior to Sampling

Gallons per Foot 0.16

Gallons in Well 1.04 x 3 = 3.12 — Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Vol	Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)	Turb
1.5	10.49	15.73	3.84	3619	2.352	3.03	387.4	33.75
2.5	1051	15.86	3.86	3616	2.216	2.77	383.4	77.43

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl

Remarks

Sampling Personnel

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 Hampton 4M

Project No.

Site Location San Juan County, Hwy 173 near Aztec, NM

Site/Well No. MW-16

Coded/ Replicate No.

Date 9/24/09

Weather Cool, Sunny

Time Sampling Began ~~1458~~ 1520

Time Sampling Completed 1545

DUP @ 1600

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface

MP Elevation

Total Sounded Depth of Well Below MP ~~31.6~~ 29.72

Water-Level Elevation

Held ____ Depth to Water Below MP 25.75

Diameter of Casing 4"

Wet ____ Water Column in Well 3.97

Gallons Pumped/Bailed Prior to Sampling

Gallons per Foot ~~0.16~~ 0.65

Gallons in Well 2.58x3 = 7.74

Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)
4gal 1537	14.52	6.54	3307	2.151	5.98	-302.7

Turbidity 94.2

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl

Remarks DRY @ 4 gallons

Sampling Personnel

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 Hampton 4M — Page 9 of 10

Project No.

Site Location San Juan County, Hwy 173 near Aztec, NM

Site/Well No. TMW-1 — Coded/ Replicate No. — Date

Weather — Time Sampling Began — Time Sampling Completed

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface — MP Elevation

Total Sounded Depth of Well Below MP ~~19.4~~ 19.16 — Water-Level Elevation

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

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

Gallons per Foot 0.16

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

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl

Remarks

Sampling Personnel

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 Hampton 4M

Project No.

Site Location San Juan County, Hwy 173 near Aztec, NM

Site/Well No. seep

Coded/ Replicate No.

Date 9/24/09

Weather

Time Sampling Began

Time Sampling Completed 1500

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface

MP Elevation

Total Sounded Depth of Well Below MP

Water-Level Elevation

Held _____ Depth to Water Below MP

Diameter of Casing

Wet _____ Water Column in Well

Gallons Pumped/Bailed Prior to Sampling

Gallons per Foot

Gallons in Well

Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl

Remarks

Sampling Personnel

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
LABORATORY ANALYSIS REPORT

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

09091280

Report To:		Project Name:	COP Hampton 4M
Tetra Tech, Inc.		Site:	Aztec, NM
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	4510016693
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	10/6/2009
ph: (505) 237-8440 fax:			

This Report Contains A Total Of 22 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

10/7/2009

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Case Narrative for:
Conoco Phillips

Certificate of Analysis Number:
09091280

Report To:		Project Name:	COP Hampton 4M
Tetra Tech, Inc.		Site:	Aztec, NM
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	4510016693
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	10/6/2009
ph: (505) 237-8440	fax:		

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.

Sample "Seep" was received at lab with 2 of the 3 vials broken. Only one vial remains. Samples "MW-16 and MW-7" were received at lab with 1 of the three vials broken. Only two vials remain per sample.

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.

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.

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.

10/7/2009

Erica Cardenas
Project Manager

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

09091280

Report To: Tetra Tech, Inc.
Kelly Blanchard
6121 Indian School Road, N.E.
Suite 200
Albuquerque
NM
87110-
ph: (505) 237-8440 fax: (505) 881-3283

Fax To:

Project Name: COP Hampton 4M
Site: Aztec, NM
Site Address:
PO Number: 4510016693
State: New Mexico
State Cert. No.:
Date Reported: 10/6/2009

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-1	09091280-01	Water	9/24/2009 11:45:00 AM	9/26/2009 9:30:00 AM	331790	☐
MW-5	09091280-02	Water	9/24/2009 3:00:00 PM	9/26/2009 9:30:00 AM	331790	☐
MW-7	09091280-03	Water	9/24/2009 3:05:00 PM	9/26/2009 9:30:00 AM	331790	☐
MW-9	09091280-04	Water	9/24/2009 11:20:00 AM	9/26/2009 9:30:00 AM	331790	☐
MW-11	09091280-05	Water	9/24/2009 12:50:00 PM	9/26/2009 9:30:00 AM	331790	☐
MW-12	09091280-06	Water	9/24/2009 3:30:00 PM	9/26/2009 9:30:00 AM	331790	☐
MW-15	09091280-07	Water	9/24/2009 10:55:00 AM	9/26/2009 9:30:00 AM	331790	☐
MW-16	09091280-08	Water	9/24/2009 3:45:00 PM	9/26/2009 9:30:00 AM	331790	☐
Seep	09091280-09	Water	9/24/2009 3:00:00 PM	9/26/2009 9:30:00 AM	331790	☐
Duplicate	09091280-10	Water	9/24/2009 4:00:00 PM	9/26/2009 9:30:00 AM	331796	☐
Trip Blank	09091280-11	Water	9/24/2009 4:05:00 PM	9/26/2009 9:30:00 AM	331796	☐

E Cardenas

10/7/2009

Erica Cardenas
Project Manager

Date

Kesavalu M. Bagawandoss Ph.D., J.D.
Laboratory Director

Ted Yen
Quality Assurance Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-1 **Collected:** 09/24/2009 11:45 **SPL Sample ID:** 09091280-01

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit		Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**		**SW8260B**	**Units: ug/L**		
Benzene	ND		1		1	09/29/09 19:25	LU_L	5224256
Ethylbenzene	ND		1		1	09/29/09 19:25	LU_L	5224256
Toluene	ND		1		1	09/29/09 19:25	LU_L	5224256
m,p-Xylene	ND		2		1	09/29/09 19:25	LU_L	5224256
o-Xylene	ND		1		1	09/29/09 19:25	LU_L	5224256
Xylenes,Total	ND		1		1	09/29/09 19:25	LU_L	5224256
Surr: 1,2-Dichloroethane-d4	98.7		%	78-116	1	09/29/09 19:25	LU_L	5224256
Surr: 4-Bromofluorobenzene	100		%	74-125	1	09/29/09 19:25	LU_L	5224256
Surr: Toluene-d8	96.0		%	82-118	1	09/29/09 19:25	LU_L	5224256

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-5 **Collected:** 09/24/2009 15:00 **SPL Sample ID:** 09091280-02

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	190		1	1	09/29/09 22:07	LU_L	5224259
Ethylbenzene	470		100	100	10/02/09 22:06	LU_L	5229674
Toluene	4300		100	100	10/02/09 22:06	LU_L	5229674
m,p-Xylene	3900		200	100	10/02/09 22:06	LU_L	5229674
o-Xylene	1200		100	100	10/02/09 22:06	LU_L	5229674
Xylenes,Total	5100		100	100	10/02/09 22:06	LU_L	5229674
Surr: 1,2-Dichloroethane-d4	93.8		% 78-116	100	10/02/09 22:06	LU_L	5229674
Surr: 1,2-Dichloroethane-d4	88.9		% 78-116	1	09/29/09 22:07	LU_L	5224259
Surr: 4-Bromofluorobenzene	102		% 74-125	100	10/02/09 22:06	LU_L	5229674
Surr: 4-Bromofluorobenzene	98.9		% 74-125	1	09/29/09 22:07	LU_L	5224259
Surr: Toluene-d8	95.6		% 82-118	100	10/02/09 22:06	LU_L	5229674
Surr: Toluene-d8	97.4		% 82-118	1	09/29/09 22:07	LU_L	5224259

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-7 **Collected:** 09/24/2009 15:05 **SPL Sample ID:** 09091280-03

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	3.7		1	1	10/02/09 5:14	LU_L	5229610
Ethylbenzene	ND		1	1	10/02/09 5:14	LU_L	5229610
Toluene	ND		1	1	10/02/09 5:14	LU_L	5229610
m,p-Xylene	ND		2	1	10/02/09 5:14	LU_L	5229610
o-Xylene	ND		1	1	10/02/09 5:14	LU_L	5229610
Xylenes,Total	ND		1	1	10/02/09 5:14	LU_L	5229610
Surr: 1,2-Dichloroethane-d4	105		% 78-116	1	10/02/09 5:14	LU_L	5229610
Surr: 4-Bromofluorobenzene	99.8		% 74-125	1	10/02/09 5:14	LU_L	5229610
Surr: Toluene-d8	95.9		% 82-118	1	10/02/09 5:14	LU_L	5229610

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-9 **Collected:** 09/24/2009 11:20 **SPL Sample ID:** 09091280-04

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		1	1	10/02/09 5:41	LU_L	5229611
Ethylbenzene	ND		1	1	10/02/09 5:41	LU_L	5229611
Toluene	ND		1	1	10/02/09 5:41	LU_L	5229611
m,p-Xylene	ND		2	1	10/02/09 5:41	LU_L	5229611
o-Xylene	ND		1	1	10/02/09 5:41	LU_L	5229611
Xylenes,Total	ND		1	1	10/02/09 5:41	LU_L	5229611
Surr: 1,2-Dichloroethane-d4	91.1		% 78-116	1	10/02/09 5:41	LU_L	5229611
Surr: 4-Bromofluorobenzene	98.9		% 74-125	1	10/02/09 5:41	LU_L	5229611
Surr: Toluene-d8	95.8		% 82-118	1	10/02/09 5:41	LU_L	5229611

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-11 **Collected:** 09/24/2009 12:50 **SPL Sample ID:** 09091280-05

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		1	1	10/02/09 6:08	LU_L	5229612
Ethylbenzene	ND		1	1	10/02/09 6:08	LU_L	5229612
Toluene	ND		1	1	10/02/09 6:08	LU_L	5229612
m,p-Xylene	ND		2	1	10/02/09 6:08	LU_L	5229612
o-Xylene	ND		1	1	10/02/09 6:08	LU_L	5229612
Xylenes,Total	ND		1	1	10/02/09 6:08	LU_L	5229612
Surr: 1,2-Dichloroethane-d4	103		% 78-116	1	10/02/09 6:08	LU_L	5229612
Surr: 4-Bromofluorobenzene	99.8		% 74-125	1	10/02/09 6:08	LU_L	5229612
Surr: Toluene-d8	95.7		% 82-118	1	10/02/09 6:08	LU_L	5229612

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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Client Sample ID: MW-12 **Collected:** 09/24/2009 15:30 **SPL Sample ID:** 09091280-06

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit		Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	610		10		10	10/02/09 19:51	LU_L	5229669
Ethylbenzene	10		1		1	10/02/09 6:35	LU_L	5229613
Toluene	8.3		1		1	10/02/09 6:35	LU_L	5229613
m,p-Xylene	15		2		1	10/02/09 6:35	LU_L	5229613
o-Xylene	4.5		1		1	10/02/09 6:35	LU_L	5229613
Xylenes,Total	19.5		1		1	10/02/09 6:35	LU_L	5229613
Surr: 1,2-Dichloroethane-d4	93.9		%	78-116	10	10/02/09 19:51	LU_L	5229669
Surr: 1,2-Dichloroethane-d4	96.2		%	78-116	1	10/02/09 6:35	LU_L	5229613
Surr: 4-Bromofluorobenzene	104		%	74-125	10	10/02/09 19:51	LU_L	5229669
Surr: 4-Bromofluorobenzene	98.5		%	74-125	1	10/02/09 6:35	LU_L	5229613
Surr: Toluene-d8	98.8		%	82-118	10	10/02/09 19:51	LU_L	5229669
Surr: Toluene-d8	94.1		%	82-118	1	10/02/09 6:35	LU_L	5229613

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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Client Sample ID: MW-15 **Collected:** 09/24/2009 10:55 **SPL Sample ID:** 09091280-07

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		1	1	10/02/09 7:03	LU_L	5229614
Ethylbenzene	ND		1	1	10/02/09 7:03	LU_L	5229614
Toluene	ND		1	1	10/02/09 7:03	LU_L	5229614
m,p-Xylene	ND		2	1	10/02/09 7:03	LU_L	5229614
o-Xylene	ND		1	1	10/02/09 7:03	LU_L	5229614
Xylenes,Total	ND		1	1	10/02/09 7:03	LU_L	5229614
Surr: 1,2-Dichloroethane-d4	92.4		% 78-116	1	10/02/09 7:03	LU_L	5229614
Surr: 4-Bromofluorobenzene	97.7		% 74-125	1	10/02/09 7:03	LU_L	5229614
Surr: Toluene-d8	94.3		% 82-118	1	10/02/09 7:03	LU_L	5229614

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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Client Sample ID: MW-16 **Collected:** 09/24/2009 15:45 **SPL Sample ID:** 09091280-08

Site: Aztec, NM

Analyses/Method	Result	QUAL		Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	3200			100	100	10/02/09 21:12	LU_L	5229672
Ethylbenzene	340			100	100	10/02/09 21:12	LU_L	5229672
Toluene	4600			100	100	10/02/09 21:12	LU_L	5229672
m,p-Xylene	2500			200	100	10/02/09 21:12	LU_L	5229672
o-Xylene	1000			100	100	10/02/09 21:12	LU_L	5229672
Xylenes,Total	3500			100	100	10/02/09 21:12	LU_L	5229672
Surr: 1,2-Dichloroethane-d4	96.3		%	78-116	100	10/02/09 21:12	LU_L	5229672
Surr: 4-Bromofluorobenzene	99.6		%	74-125	100	10/02/09 21:12	LU_L	5229672
Surr: Toluene-d8	96.1		%	82-118	100	10/02/09 21:12	LU_L	5229672

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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Client Sample ID: Seep **Collected:** 09/24/2009 15:00 **SPL Sample ID:** 09091280-09

Site: Aztec, NM

Analyses/Method	Result	QUAL		Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND			1	1	10/02/09 12:56	LU_L	5229620
Ethylbenzene	ND			1	1	10/02/09 12:56	LU_L	5229620
Toluene	ND			1	1	10/02/09 12:56	LU_L	5229620
m,p-Xylene	ND			2	1	10/02/09 12:56	LU_L	5229620
o-Xylene	ND			1	1	10/02/09 12:56	LU_L	5229620
Xylenes,Total	ND			1	1	10/02/09 12:56	LU_L	5229620
Surr: 1,2-Dichloroethane-d4	88.0		%	78-116	1	10/02/09 12:56	LU_L	5229620
Surr: 4-Bromofluorobenzene	98.9		%	74-125	1	10/02/09 12:56	LU_L	5229620
Surr: Toluene-d8	97.4		%	82-118	1	10/02/09 12:56	LU_L	5229620

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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Client Sample ID: Duplicate **Collected:** 09/24/2009 16:00 **SPL Sample ID:** 09091280-10

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	4000		100	100	10/02/09 21:39	LU_L	5229673
Ethylbenzene	430		100	100	10/02/09 21:39	LU_L	5229673
Toluene	6000		100	100	10/02/09 21:39	LU_L	5229673
m,p-Xylene	3100		200	100	10/02/09 21:39	LU_L	5229673
o-Xylene	1200		100	100	10/02/09 21:39	LU_L	5229673
Xylenes,Total	4300		100	100	10/02/09 21:39	LU_L	5229673
Surr: 1,2-Dichloroethane-d4	93.6		% 78-116	100	10/02/09 21:39	LU_L	5229673
Surr: 4-Bromofluorobenzene	102		% 74-125	100	10/02/09 21:39	LU_L	5229673
Surr: Toluene-d8	98.0		% 82-118	100	10/02/09 21:39	LU_L	5229673

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

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Client Sample ID: Trip Blank **Collected:** 09/24/2009 16:05 **SPL Sample ID:** 09091280-11

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		1	1	09/29/09 18:58	LU_L	5224255
Ethylbenzene	ND		1	1	09/29/09 18:58	LU_L	5224255
Toluene	ND		1	1	09/29/09 18:58	LU_L	5224255
m,p-Xylene	ND		2	1	09/29/09 18:58	LU_L	5224255
o-Xylene	ND		1	1	09/29/09 18:58	LU_L	5224255
Xylenes,Total	ND		1	1	09/29/09 18:58	LU_L	5224255
Surr: 1,2-Dichloroethane-d4	92.0		% 78-116	1	09/29/09 18:58	LU_L	5224255
Surr: 4-Bromofluorobenzene	103		% 74-125	1	09/29/09 18:58	LU_L	5224255
Surr: Toluene-d8	97.8		% 82-118	1	09/29/09 18:58	LU_L	5224255

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

Quality Control Documentation

HOUSTON LABORATORY
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Quality Control Report

Conoco Phillips

COP Hampton 4M

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 09091280
Lab Batch ID: R285050

Method Blank

RunID: K_090929B-5224254 Units: ug/L
Analysis Date: 09/29/2009 15:46 Analyst: LU_L

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09091280-01A	MW-1
09091280-02A	MW-5
09091280-11A	Trip Blank

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	ND	1.0
Toluene	ND	1.0
m,p-Xylene	ND	2.0
o-Xylene	ND	1.0
Xylenes,Total	ND	1.0
Surr: 1,2-Dichloroethane-d4	98.3	78-116
Surr: 4-Bromofluorobenzene	101.4	74-125
Surr: Toluene-d8	96.9	82-118

Laboratory Control Sample (LCS)

RunID: K_090929B-5224253 Units: ug/L
Analysis Date: 09/29/2009 14:51 Analyst: LU_L

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	20.0	20.8	104	74	123
Ethylbenzene	20.0	18.5	92.3	72	127
Toluene	20.0	20.5	102	74	126
m,p-Xylene	40.0	37.0	92.5	71	129
o-Xylene	20.0	18.4	92.1	74	130
Xylenes,Total	60.0	55.4	92.4	71	130
Surr: 1,2-Dichloroethane-d4	50.0	49.7	99.4	78	116
Surr: 4-Bromofluorobenzene	50.0	50.4	101	74	125
Surr: Toluene-d8	50.0	47.4	94.8	82	118

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09091280-01
RunID: K_090929B-5224257 Units: ug/L
Analysis Date: 09/29/2009 19:52 Analyst: LU_L

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report 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.

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Quality Control Report

Conoco Phillips

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Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09091280
Method: SW8260B **Lab Batch ID:** R285050

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	20	22.0	110	20	22.3	112	1.65	22	70	124
Ethylbenzene	ND	20	19.0	95.0	20	19.3	96.7	1.83	20	76	122
Toluene	ND	20	19.6	98.0	20	20.3	101	3.31	24	80	117
m,p-Xylene	ND	40	37.0	92.6	40	37.2	93.1	0.555	20	69	127
o-Xylene	ND	20	18.5	92.7	20	18.7	93.5	0.870	20	84	114
Xylenes,Total	ND	60	55.5	92.6	60	55.9	93.2	0.660	20	69	127
Surr: 1,2-Dichloroethane-d4	ND	50	48.3	96.6	50	48.6	97.3	0.654	30	78	116
Surr: 4-Bromofluorobenzene	ND	50	48.1	96.1	50	49.3	98.6	2.49	30	74	125
Surr: Toluene-d8	ND	50	46.7	93.5	50	47.5	95.0	1.60	30	82	118

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report 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.

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Quality Control Report

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Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 09091280
Lab Batch ID: R285376

Method Blank

RunID: K_091001G-5229609 Units: ug/L
Analysis Date: 10/02/2009 4:47 Analyst: LU_L

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	ND	1.0
Toluene	ND	1.0
m,p-Xylene	ND	2.0
o-Xylene	ND	1.0
Xylenes,Total	ND	1.0
Surr: 1,2-Dichloroethane-d4	96.5	78-116
Surr: 4-Bromofluorobenzene	100.3	74-125
Surr: Toluene-d8	96.7	82-118

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09091280-03A	MW-7
09091280-04A	MW-9
09091280-05A	MW-11
09091280-06A	MW-12
09091280-07A	MW-15
09091280-09A	Seep

Laboratory Control Sample (LCS)

RunID: K_091001G-5229608 Units: ug/L
Analysis Date: 10/02/2009 4:20 Analyst: LU_L

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	20.0	22.8	114	74	123
Ethylbenzene	20.0	19.2	95.8	72	127
Toluene	20.0	20.1	101	74	126
m,p-Xylene	40.0	37.8	94.4	71	129
o-Xylene	20.0	19.0	94.8	74	130
Xylenes,Total	60.0	56.8	94.5	71	130
Surr: 1,2-Dichloroethane-d4	50.0	47.9	95.8	78	116
Surr: 4-Bromofluorobenzene	50.0	49.1	98.1	74	125
Surr: Toluene-d8	50.0	47	93.9	82	118

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09091378-08
RunID: K_091001G-5229618 Units: ug/L
Analysis Date: 10/02/2009 10:13 Analyst: LU_L

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report 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.

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Quality Control Report

Conoco Phillips

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Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09091280
Method: SW8260B **Lab Batch ID:** R285376

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	20	21.9	109	20	21.4	107	2.40	22	70	124
Ethylbenzene	ND	20	19.7	98.7	20	19.0	95.2	3.53	20	76	122
Toluene	ND	20	20.6	103	20	19.5	97.6	5.46	24	80	117
m,p-Xylene	ND	40	37.5	93.8	40	37.0	92.6	1.28	20	69	127
o-Xylene	ND	20	19.7	98.4	20	18.8	94.1	4.45	20	84	114
Xylenes,Total	ND	60	57.2	95.3	60	55.8	93.1	2.36	20	69	127
Surr: 1,2-Dichloroethane-d4	ND	50	46.9	93.8	50	46.9	93.9	0.0853	30	78	116
Surr: 4-Bromofluorobenzene	ND	50	48.9	97.8	50	49.1	98.3	0.432	30	74	125
Surr: Toluene-d8	ND	50	48.8	97.6	50	48.2	96.4	1.30	30	82	118

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report 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.

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Quality Control Report

Conoco Phillips

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Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 09091280
Lab Batch ID: R285380

Method Blank

RunID: K_091002B-5229668 Units: ug/L
Analysis Date: 10/02/2009 17:34 Analyst: LU_L

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	ND	1.0
Toluene	ND	1.0
m,p-Xylene	ND	2.0
o-Xylene	ND	1.0
Xylenes,Total	ND	1.0
Surr: 1,2-Dichloroethane-d4	98.7	78-116
Surr: 4-Bromofluorobenzene	99.3	74-125
Surr: Toluene-d8	97.3	82-118

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09091280-02A	MW-5
09091280-06A	MW-12
09091280-08A	MW-16
09091280-10A	Duplicate

Laboratory Control Sample (LCS)

RunID: K_091002B-5229667 Units: ug/L
Analysis Date: 10/02/2009 16:39 Analyst: LU_L

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	20.0	22.2	111	74	123
Ethylbenzene	20.0	19.2	96.1	72	127
Toluene	20.0	19.6	97.9	74	126
m,p-Xylene	40.0	37.8	94.5	71	129
o-Xylene	20.0	19.4	97.2	74	130
Xylenes,Total	60.0	57.2	95.4	71	130
Surr: 1,2-Dichloroethane-d4	50.0	49	97.9	78	116
Surr: 4-Bromofluorobenzene	50.0	50.2	100	74	125
Surr: Toluene-d8	50.0	48.4	96.7	82	118

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 09091280-06
RunID: K_091002B-5229670 Units: ug/L
Analysis Date: 10/02/2009 20:18 Analyst: LU_L

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report 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.

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Quality Control Report

Conoco Phillips

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Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09091280
Method: SW8260B **Lab Batch ID:** R285380

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	613	200	823	105	200	836	112	1.58	22	70	124
Ethylbenzene	15.9	200	204	93.8	200	191	87.7	6.18	20	76	122
Toluene	13.5	200	214	100	200	200	93.4	6.41	24	80	117
m,p-Xylene	21.0	400	401	95.0	400	382	90.3	4.78	20	69	127
o-Xylene	ND	200	201	101	200	194	97.1	3.54	20	84	114
Xylenes,Total	21.0	600	602	96.9	600	576	92.6	4.37	20	69	127
Surr: 1,2-Dichloroethane-d4	ND	500	490	98.0	500	481	96.3	1.82	30	78	116
Surr: 4-Bromofluorobenzene	ND	500	508	102	500	494	98.9	2.60	30	74	125
Surr: Toluene-d8	ND	500	486	97.2	500	476	95.3	2.01	30	82	118

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report 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.

Sample Receipt Checklist

And

Chain of Custody

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Sample Receipt Checklist

Workorder:	**09091280**	Received By:	**AMV**
Date and Time Received:	**9/26/2009 9:30:00 AM**	Carrier name:	**Fedex-Priority**
Temperature:	**2.0°C**	Chilled by:	**Water Ice**

1. **Shipping container/cooler in good condition?**	Yes ☑	No ☐	Not Present ☐	
2. **Custody seals intact on shippping container/cooler?**	Yes ☑	No ☐	Not Present ☐	
3. **Custody seals intact on sample bottles?**	Yes ☐	No ☐	Not Present ☑	
4. **Chain of custody present?**	Yes ☑	No ☐		
5. **Chain of custody signed when relinquished and received?**	Yes ☑	No ☐		
6. **Chain of custody agrees with sample labels?**	Yes ☑	No ☐		
7. **Samples in proper container/bottle?**	Yes ☑	No ☐		
8. **Sample containers intact?** 1. Sample "Seep" was received at lab with 2 of the 3 vials broken. Only one vial remains. 2. Samples "MW-16 and MW-7" were received at lab with 1 of the three vials broken. Only two vials remain per sample.	Yes ☐	No ☑		
9. **Sufficient sample volume for indicated test?**	Yes ☑	No ☐		
10. **All samples received within holding time?**	Yes ☑	No ☐		
11. **Container/Temp Blank temperature in compliance?**	Yes ☑	No ☐		
12. **Water - VOA vials have zero headspace?**	Yes ☑	No ☐	VOA Vials Not Present ☐	
13. **Water - Preservation checked upon receipt (except VOA*)?**	Yes ☐	No ☐	Not Applicable ☑	

***VOA Preservation Checked After Sample Analysis**

SPL Representative: _____ **Contact Date & Time:** _____

Client Name Contacted: _____

Non Conformance Issues: 1/2. Wrote "Limited sample volume" in the sample comments and notified PM.

Client Instructions: _____

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. 0909128O — 331790

page 1 of 2

Client Name: TetraTech / ConocoPhillips
Address: 612 Indian School Rd Ste 200
City Albuquerque State NM Zip 87110
Phone/Fax: 505.237.8440 505.237.8666
Client Contact: Kelly Blanchard Email: kelly.blanchard@tetratech.com
Project Name/No.: ~~Allen~~ Hampton #4M
Site Name:
Site Location: Aztec, NM
Invoice To: ConocoPhillips Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	Number of Containers	Requested Analysis: BTEX ONLY
MW-1	9/24/09	1145		X	W	V	40	1	3	X
MW-5	9/24/09	1500		X	W	V	40	1	3	X
MW-7	9/24/09	1505		X	W	V	40	1	3	X
MW-9	9/24/09	1120		X	W	V	40	1	3	X
MW-11	9/24/09	1250		X	W	V	40	1	3	X
MW-12	9/24/09	1530		X	W	V	40	1	3	X
MW-15	9/24/09	1055		X	W	V	40	1	3	X
MW-16	9/24/09	1545		X	W	V	40	1	3	X
~~TMW-1~~	~~9/24/09~~			~~X~~	~~W~~	~~V~~	~~40~~	~~1~~	~~3~~	~~X~~
Seep	9/24/09	1500		X	W	V	40	1	3	X

matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other
bottle: P=plastic A=amber glass G=glass V=vial X=other
size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other
pres.: 1=HCl 2=HNO3 3=H2SO4 X=other

Client/Consultant Remarks:

Laboratory remarks:

Intact? Y N
Ice? Y N
Temp: 2.0

Requested TAT
- ☐ 1 Business Day
- ☐ 2 Business Days
- ☐ 3 Business Days
- ☐ Contract
- ☒ Standard
- ☐ Other
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☐ Email ☒ PDF ☒
Standard QC ☒ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial):

	date	time	
1. Relinquished by Sampler:	9/25/09	1450	2. Received by:
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	9/26/09	9:30	6. Received by Laboratory: Amanda Vicknair

☒ 8880 Interchange Drive, Houston, TX 77054 (713) 660-0901
☐ 500 Ambassador Caffery Parkway, Scott, LA 70583 (337) 237-4775
☐ 459 Hughes Drive, Traverse City, MI 49686 (231) 947-5777

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. ~~1040~~ 0909 1280 | 331796 | page 2 of 2

Client Name: TetraTech / ConocoPhillips
Address: 6121 Indian School Rd Ste 200
City Albuquerque State NM Zip 87110
Phone/Fax: 505.237.8440 505.237.8656
Client Contact: Kelly Blanchard Email: kelly.blanchard@tetratech.com
Project Name/No.: Hampton #4M
Site Name:
Site Location: Aztec, NM
Invoice To: ConocoPhillips Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix (W=water S=soil O=oil A=air SL=sludge E=encore X=other)	bottle (P=plastic A=amber glass G=glass V=vial X=other)	size (1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other)	pres. (1=HCl 2=HNO3 3=H2SO4 X=other)	Number of Containers	Requested Analysis: BTEX ONLY
Duplicate	9/24/09	1600		X	W	V	40	~~1~~	3	X
Trip Blank	9/24/09	1605			W	V	40	1	2	X

Client/Consultant Remarks:

Laboratory remarks:

Intact? ☐ Y ☐ N
Ice? ☑ Y ☐ N
Temp: 2.0

Requested TAT
☐ 1 Business Day ☐ Contract
☐ 2 Business Days ☒ Standard
☐ 3 Business Days
☐ Other _____
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☐ Email ☒ PDF ☒
Standard QC ☒ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial):

	date	time	
1. Relinquished by Sampler:	9/25/09	1450	2. Received by:
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	date 9/26/09	time 9:30	6. Received by Laboratory: Amanda Vickrain

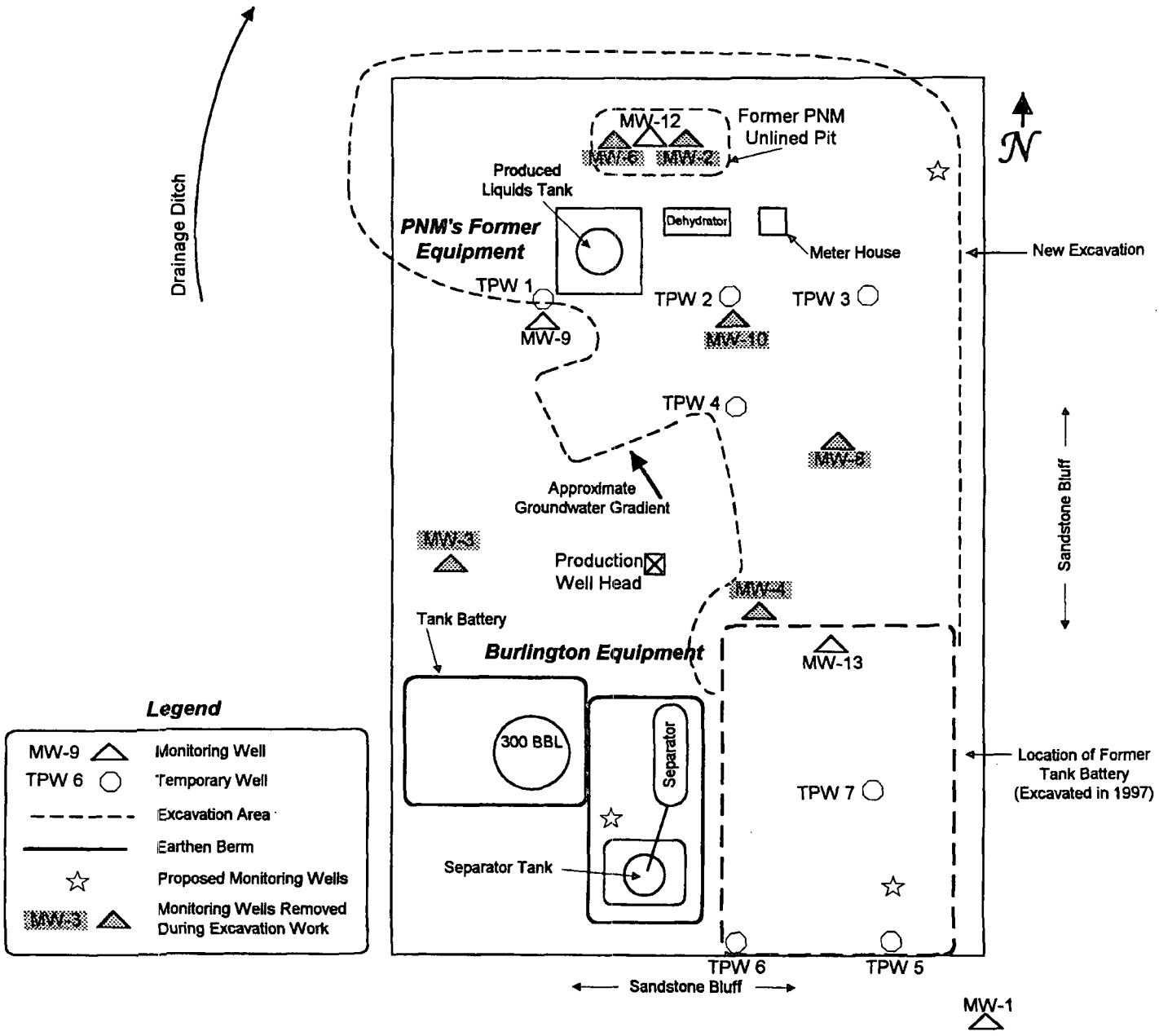
☒ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

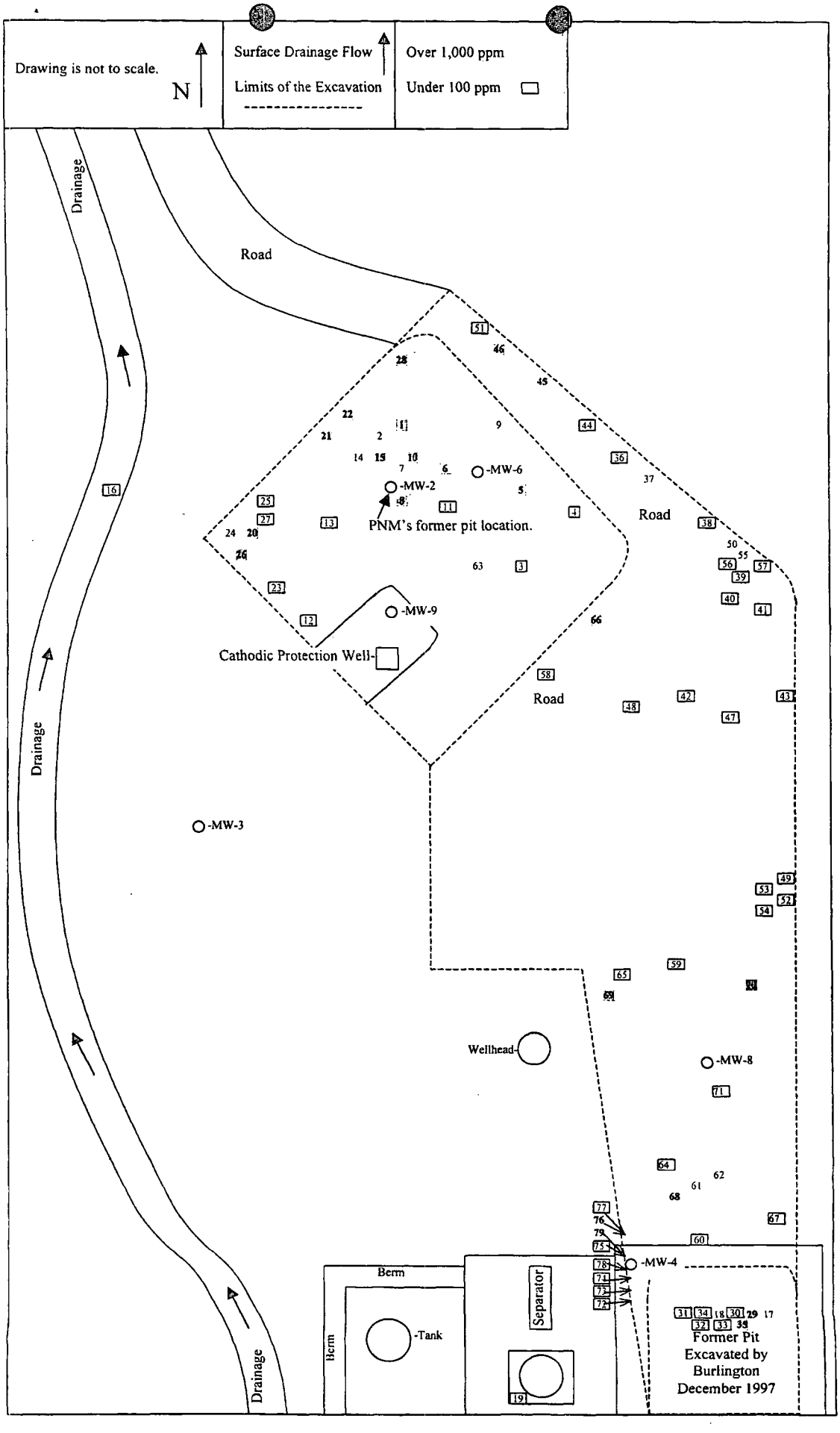
☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

ATTACHMENTS

Hampton #4M Site Diagram




Drawing is not to scale.
N
Surface Drainage Flow
Limits of the Excavation
Over 1,000 ppm
Under 100 ppm
Drainage
Road
-MW-6
-MW-2
PNM's former pit location.
Road
Road
-MW-9
Cathodic Protection Well
-MW-3
Drainage
Drainage
Wellhead
-MW-8
-MW-4
Berm
Berm
-Tank
Separator
Former Pit
Excavated by
Burlington
December 1997