3R - 084

QUARTERLY REPORTS

11/10/2008

TETRA TECH, INC.

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

November 14, 2008

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

RE: (1) ConocoPhillips Federal #15 2008 Quarterly Report
Farmington, New Mexico
(2) ConocoPhillips B Com #1E 2008 Quarterly Report
Farmington, New Mexico

Dear Mr. von Gonten:

Enclosed please find a copy of the above-referenced documents as compiled by Tetra Tech, Inc. for these Farmington area ConocoPhillips sites. We are currently working to incorporate the additional elements we discussed during our April 2, 2008 meeting at your office into the next set of reports.

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

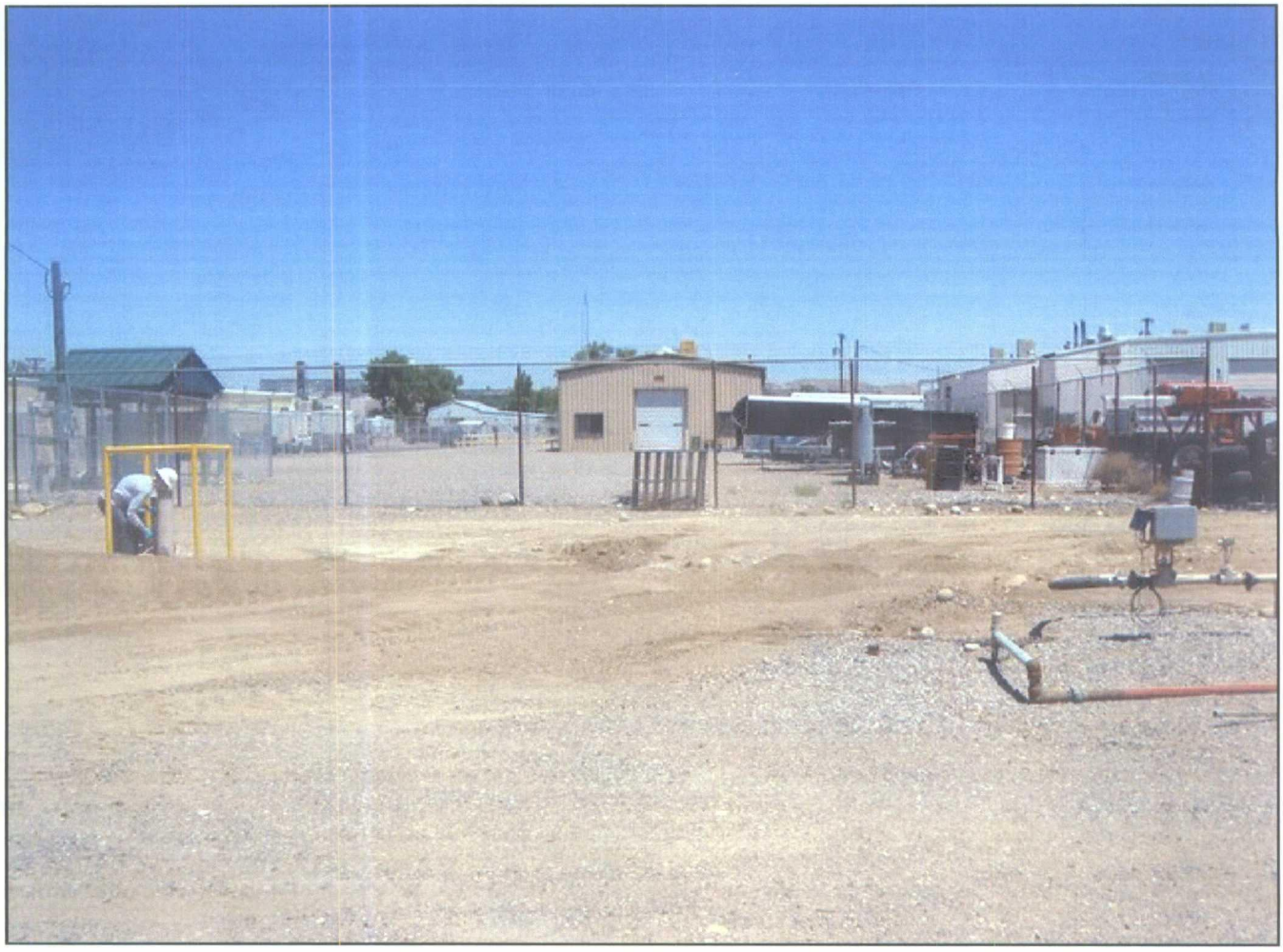
Sincerely,

Kelly E. Blanchard

Kelly E. Blanchard
Project Manager/Geologist

Enclosures (2)

2008 QUARTERLY MONITORING REPORT
FORMER CONOCOPHILLIPS
B COM #1 E
FARMINGTON, NM
OCD # 3R0084



ConocoPhillips

TETRA TECH, INC.

November 2008

QUARTERLY GROUNDWATER MONITORING REPORT
JULY 2008 SAMPLING EVENT

FORMER CONOCOPHILLIPS SITE
B COM #1E
FARMINGTON, NEW MEXICO

OCD # 3R0084

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. 8690066.100

November 10, 2008

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QUARTERLY GROUNDWATER MONITORING REPORT CONOCOPHILLIPS B COM #1E, FARMINGTON, NEW MEXICO

1.0 INTRODUCTION

This report presents the results of quarterly groundwater monitoring completed by Tetra Tech, Inc. (Tetra Tech) on July 24, 2008, at the ConocoPhillips B Com #1E Site in Farmington, New Mexico. This event represents the first quarterly groundwater sampling at the site.

The site is located on the southeast side of Farmington, New Mexico near the corner of Murray Road and Carlton Road. The site consists of a gas production well and associated equipment and installations. The location and general features of the B Com #1E site are shown on **Figures 1** and **2**, respectively.

1.1 Site History

During March 1997 a site assessment was conducted by On Site Technologies (On Site). Four test pits were advanced and soil samples were collected. Total petroleum hydrocarbon (TPH) and benzene, toluene, ethylbenzene, and xylenes (BTEX) impacts were confirmed north of the production storage tank and west of the separator/dehydrator pit. The impacts were described by On Site as limited to former unlined pit areas, traveling straight down with little lateral migration, due to the porous and permeable subsurface soils. The soils were noncohesive consisting of well rounded gravel and cobbles with sand. The gravel and cobbles were screened out and placed back into the pits with fertilizer to enhance bioremediation.

Six monitoring wells (MW-1 through MW-6) were subsequently installed at the site. Light non-aqueous phase liquid (LNAPL) was discovered in MW-1 and recovery began. During May 2004, Souder Miller and Associates (Souder Miller) placed active and passive skimmers in MW-1 to determine the best method of recovery. The passive skimmer collected a small amount of free product. The active skimmer did not collect any free product. At that time Souder Miller determined that an active skimmer was not a viable method of free product recovery in MW-1. Souder Miller proposed passive skimming or periodic hand bailing as a viable recovery method. The plan for future work at the site includes annual monitoring of MW-1 and MW-6 for BTEX and biodegradation parameters. When MW-1 reaches compliance, quarterly monitoring of MW-1 will commence and all wells will be monitored in the final quarter to verify site closure requirements have been met.

On February 20, 2007, May 15, 2007, August 21, 2007, and November 7, 2007 Tetra Tech was onsite to supervise the pumping of MW-1 using a vacuum truck. Approximately 1900 gallons of fluid were removed from MW-1 during the 2007 pumping activities and fluid was disposed of in a ConocoPhillips waste water tank located at the Federal Com #15 site in Farmington, New Mexico.

Tetra Tech conducted annual groundwater sampling of monitor wells MW-1 and MW-6 in November of 2006 and 2007. The details of each sampling event are summarized in the 2006 and 2007 Annual Groundwater Monitoring and Site Activities Reports, dated January 4, 2007 and January 23, 2008, respectively.

On January 15 and March 18 of 2008, Tetra Tech was onsite to supervise the pumping of MW-1 using a vacuum truck. Approximately 200 gallons of fluid was removed from MW-1 during the 2008 pumping activities and was disposed of in a ConocoPhillips waste water tank located at the Federal Com #15 site in Farmington, New Mexico.

The most current sampling event, conducted on July 24, 2008, marks the first quarterly groundwater monitoring at the B Com #1E site.

2.0 METHODOLOGY AND RESULTS

The following subsections describe the groundwater monitoring methodology and sampling analytical results.

2.1 Groundwater Monitoring Methodology

Groundwater Elevation Measurements

On July 24, 2008, groundwater elevation measurements were recorded in monitor wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6. **Table 1** presents the monitor well specifications and groundwater level data. A groundwater elevation contour map is presented on **Figure 3** that illustrates groundwater at the site flows to the west.

Groundwater sampling

Monitor wells MW-1 and MW-6 were sampled during this event to initiate the first round of quarterly groundwater monitoring at the site. Approximately 3 gallons of water, or three well volumes, were purged from MW-1 and MW-6 with 1.5-inch dedicated, clear, poly-vinyl, disposable bailer. The purged water collected was placed in a 55-gallon steel drum onsite for later disposal at a ConocoPhillips approved facility. The groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped with chain of custody documentation to Southern Petroleum Laboratories located in Houston, Texas. The samples were analyzed for the presence of BTEX by Environmental Protection Agency (EPA) Method 8260B, sulfate by EPA Method 300.0, nitrate by EPA Method 353.2, phosphate by EPA Method 365.1, and ferrous iron by Standard Method (SM) 18, 3500-Fe B Modified

2.2 Groundwater Sampling Analytical Results

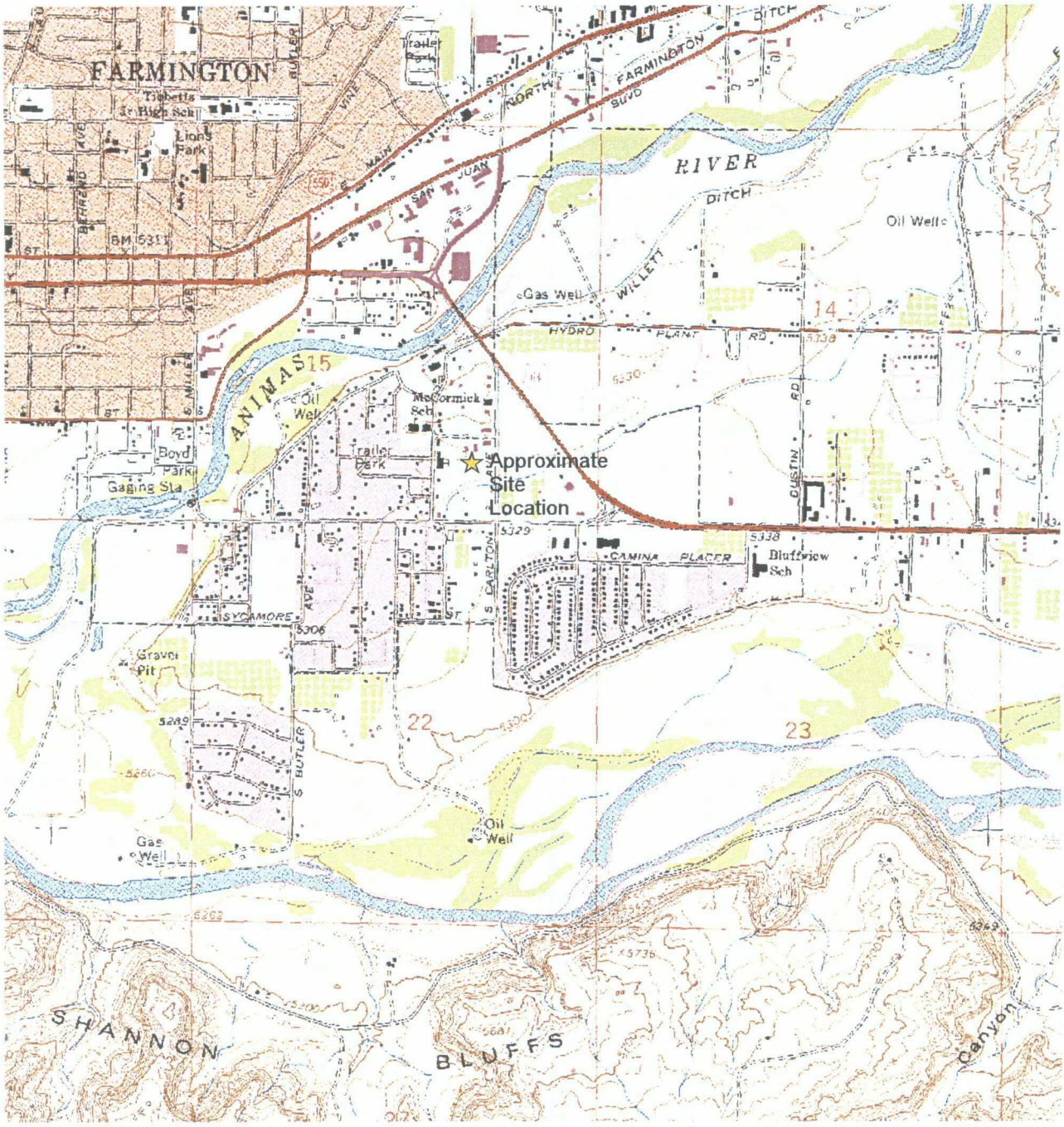
During the July 2008 quarterly sampling event the samples collected from monitor well MW-6 were below laboratory detection limits for BTEX. The samples collected from monitor well MW-1 contained concentrations of ethylbenzene and xylenes below the New Mexico Water Quality Control Commission (NMWQCC) standards. The sulfate results for MW-1 and MW-6 were below the NMWQCC standards. Ferrous iron was above the NMWQCC standard in MW-1 and MW-6. The NMWQCC has not

established a standard for phosphate in groundwater. **Table 2** presents the laboratory analytical results. The laboratory analytical reports are included as **Appendix B**.

3.0 CONCLUSIONS

Tetra Tech will continue quarterly monitoring of groundwater in MW-1 and MW-6. The second quarter monitoring event took place during October of 2008. The third and fourth quarter events are scheduled to take place in January and April of 2009, respectively.

FIGURES



0 Miles 1.0

Figure 1. Site Location Map

FORMER CONOCOPHILLIPS B COM #1 E

SW 1/4 SE 1/4 SECTION 25 T 29N R 13W
Farmington South, New Mexico USGS Quadrangle

☆=Approximate Site Location

N

TETRA TECH, INC.

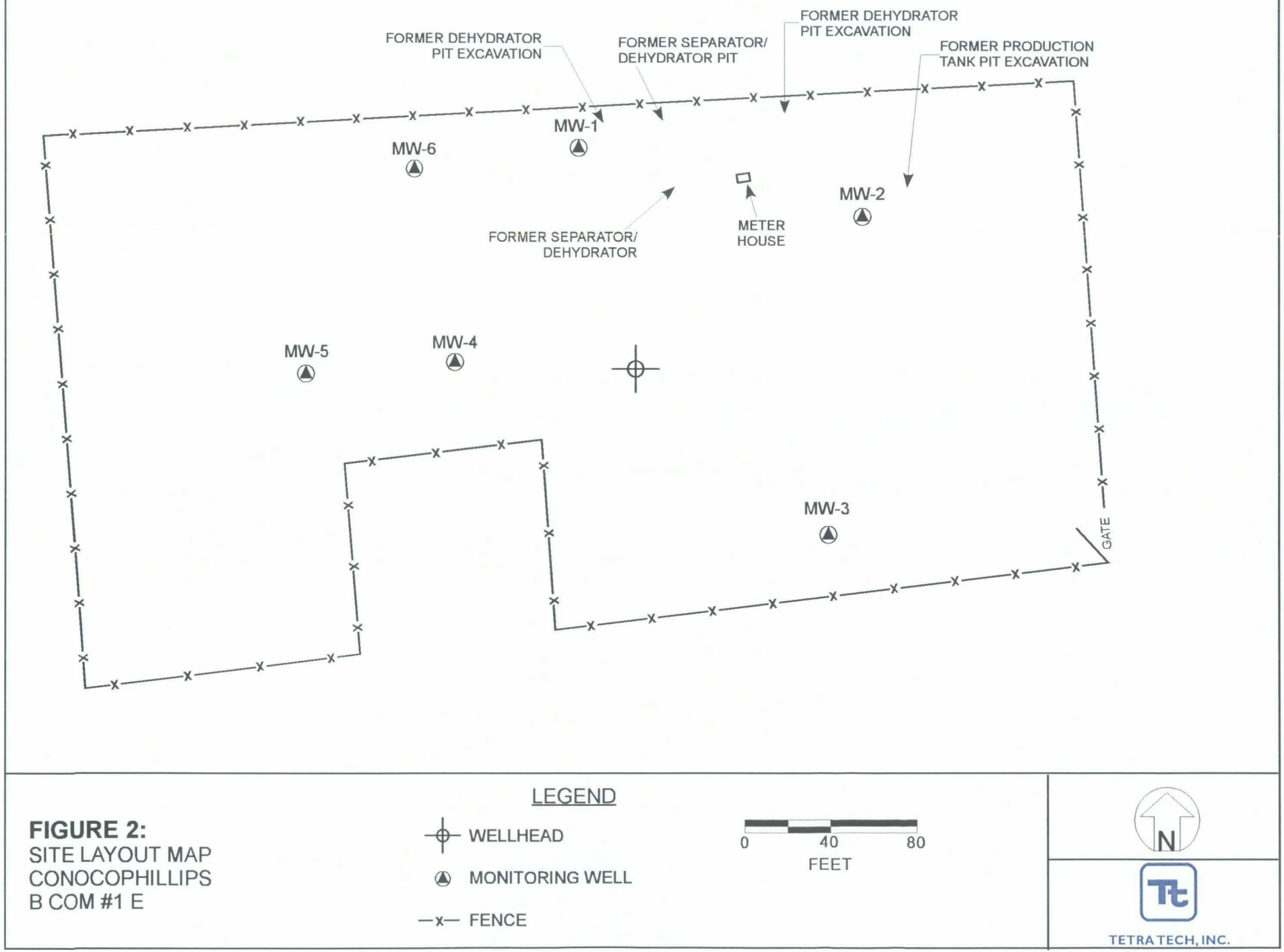


FIGURE 2:
SITE LAYOUT MAP
CONOCOPHILLIPS
B COM #1 E

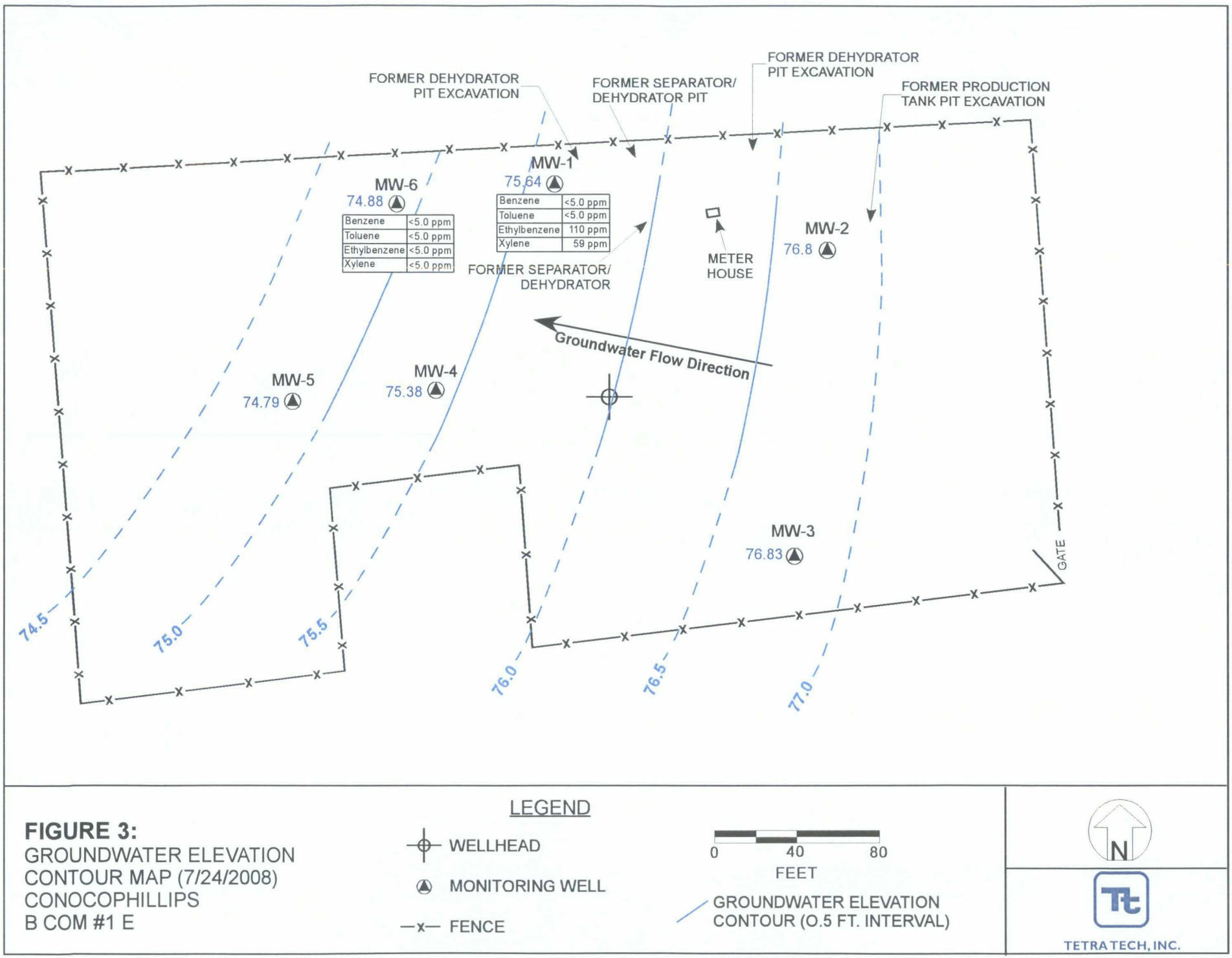


FIGURE 3:
GROUNDWATER ELEVATION CONTOUR MAP (7/24/2008)
CONOCOPHILLIPS
B COM #1 E

LEGEND

WELLHEAD

MONITORING WELL

FENCE

0 40 80
FEET

GROUNDWATER ELEVATION CONTOUR (0.5 FT. INTERVAL)

N

TETRA TECH, INC.

TABLES

Table 1. ConocoPhillps B Com #1E Monitoring Well Specifications and Groundwater Elevation Table

Well ID	Total Depth (ft. bgs)	Screen Interval (ft)	*Elevation (ft.) (TOC)	Date Measured	Groundwater Level (ft TOC)	Relative Groundwater Elevation (ft TOC)
MW-1	34.09	19.09 - 34.09	101.37	5/9/2005	28.3	73.07
				10/19/2005	25.12	76.25
				11/14/2006	26.48	74.89
				11/7/2007	26.3	75.07
				1/16/2008	29.24	72.13
				3/18/2008	29.27	72.1
				7/24/2008	25.73	75.64
MW-2	33.72	18.72 - 33.72	101.57	5/9/2005	27.28	74.29
				10/19/2005	24.3	77.27
				11/14/2006	26.08	75.49
				11/7/2007	25.31	76.26
				1/16/2008	27.27	74.3
				3/18/2008	28.68	72.89
				7/24/2008	24.77	76.8
MW-3	32.44	17.44 - 32.44	102.1	5/9/2005	27.81	74.29
				10/19/2005	25.06	77.04
				11/14/2006	26.75	75.35
				11/7/2007	26.12	75.98
				1/16/2008	28.46	73.64
				3/18/2008	29.97	72.13
				7/24/2008	25.27	76.83
MW-4	32.72	17.72 - 32.72	101.4	5/9/2005	28.73	72.67
				10/19/2005	25.62	75.78
				11/14/2006	27.02	74.38
				11/7/2007	26.5	74.9
				1/16/2008	28.55	72.85
				3/18/2008	29.99	71.41
				7/24/2008	26.02	75.38
MW-5	34.09	19.09 - 34.09	100.52	5/9/2005	28.5	72.02
				10/19/2005	25.3	75.22
				11/14/2006	27.67	72.85
				11/7/2007	26.13	74.39
				1/16/2008	28.18	72.34
				3/18/2008	29.65	70.87
				7/24/2008	25.73	74.79
MW-6	34.02	19.02 - 34.02	102.14	5/9/2005	29.94	72.2
				10/19/2005	26.7	75.44
				11/14/2006	27.91	74.23
				11/7/2007	27.52	74.62
				1/16/2008	29.43	72.71
				3/18/2008	30.85	71.29
				7/24/2008	27.26	74.88

ft. = Feet
TOC = Top of casing
bgs = below ground surface
* Relative Elevation

Table 2. ConocoPhillips B Com #1E Groundwater Analytical Results Summary

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Phosphate (mg/L)
MW-1	2/19/1998	**210**	34	370	**2,044**	NS	NS	NS	NS
	6/12/1998	3" free product in bailer - not sampled							
	9/15/1998	free product - not sampled							
	12/29/1998	**350**	BDL	420	**2,800**	NS	NS	NS	NS
	1/22/2004	free product - not sampled							
	5/9/2005	**17**	<0.7	74	250	<0.40	77.8	**14.9**	0.42
	10/19/2005	**34**	<1.0	170	**1400**	0.15	39.9	**15**	0.43
	11/14/2006	**18**	<0.7	190	**1600**	<0.015	145	**8.8**	4.4
	11/7/2007	7	<0.7	120	250	<0.015	38.4	**6.4**	0.57
	7/24/2008	<5.0	<5.0	90	35	<0.5	4.76	**17.2**	<0.5
	Duplicate	<5.0	<5.0	110	59	NA	NA	NA	NA
MW-6	9/15/1998	BDL	BDL	BDL	BDL	NS	NS	NS	NS
	12/29/1998	BDL	BDL	BDL	BDL	NS	NS	NS	NS
	3/3/1999	BDL	BDL	BDL	BDL	NS	NS	NS	NS
	6/15/1999	BDL	BDL	BDL	BDL	NS	NS	NS	NS
	9/15/1999	BDL	0.7	1.1	BDL	NS	NS	NS	NS
	12/14/1999	BDL	1.8	0.7	1.9	NS	NS	NS	NS
	1/22/2004	BDL	BDL	BDL	BDL	NS	NS	NS	NS
	5/9/2005	<0.5	<0.7	<0.8	<0.8	<0.4	97	**15.9**	7
	10/19/2005	<0.5	<0.7	<0.8	<0.8	5.4	52.6	**1.4**	1.7
	11/14/2006	<0.5	<0.7	<0.8	1	<0.015	159	**5.8**	2
	11/7/2007	<0.5	<0.7	<0.8	<0.8	<0.015	112	**3**	0.99
	7/24/2008	<5.0	<5.0	<5.0	<5.0	<0.5	44.4	**28.5**	<0.5
NMWQCC Standards		**10 (µg/L)**	**750 (µg/L)**	**750 (µg/L)**	**620 (µg/L)**	**10 (mg/L)**	**600 (mg/L)**	**1 (mg/L)**	**NE**

NMWQCC = New Mexico Water Quality Control Commission
mg/L = milligrams per liter (parts per million)
µg/L = micrograms per liter (parts per billion)
NE=Not Extablished
NA = Not Analyzed
BDL = Below laboratory detection limits
<0.7 = Below laboratory detection limit of 0.7 ug/L

APPENDIX A

GROUNDWATER SAMPLING FIELD FORMS

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name: B Com #1E — Page 1 of 2

Project No.: 1158690096

Site Location: Farmington, NM

Site/Well No.: MW-6 — Coded/ Replicate No.: N/A — Date: 7/24/2008

Weather: hot — Time Sampling Began: 3:50 — Time Sampling Completed: 4:15

EVACUATION DATA

Description of Measuring Point (MP): Top of Casing

Height of MP Above/Below Land Surface: Approx. 3.5" — MP Elevation: 102.14*

Total Sounded Depth of Well Below MP: 33.65 — Water-Level Elevation: 74.62*

Held: ____ — Depth to Water Below MP: 27.26 — Diameter of Casing: 2"

Wet: ____ — Water Column in Well: 6.39 — Gallons Pumped/Bailed Prior to Sampling: 3 gallons

Gallons per Foot: 0.16

Gallons in Well: 1.02 — Sampling Pump Intake Setting (feet below land surface): N/A

Purging Equipment: 1.5" Polyvinyl Disposable Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature	pH	Conductivity	TDS in ppm
1545	**66.1**	**7.13**	**753**	**387**
1610	**63.7**	**7.02**	**745**	**387**

Sampling Equipment: 1.5" Polyvinyl Disposable Bailer

Constituents Sampled	Container Description	Preservative
BTEX, Sulfate, Nitrate, Phosphate,		
Ferrous Iron		

Remarks: Water is brown in color and murky; no odor; * means Relative Elevation

Sampling Personnel: Kelly Blanchard, 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: B Com #1E — Page 2 of 2

Project No.: 1158690096

Site Location: Farmington, NM

Site/Well No.: MW-1 — Coded/ Replicate No.: Duplicate — Date: 7/24/2008

Weather: hot — Time Sampling Began: 2:15 — Time Sampling Completed: 2:30

EVACUATION DATA

Description of Measuring Point (MP): Top of Casing

Height of MP Above/Below Land Surface: Approx. 3.5' — MP Elevation: 101.37*

Total Sounded Depth of Well Below MP: 34.09 — Water-Level Elevation: 75.07*

Held: ____ — Depth to Water Below MP: 25.73 — Diameter of Casing: 2"

Wet: ____ — Water Column in Well: 8.36 — Gallons Pumped/Bailed Prior to Sampling: 4

Gallons per Foot: 0.16

Gallons in Well: 1.3376 — Sampling Pump Intake Setting (feet below land surface): N/A

Purging Equipment: 1.5" polyvinyl disposable bailer to collect sample

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature	pH	Conductivity	TDS in ppm	Other

Sampling Equipment: 1.5" Polyvinyl Disposable Bailer

Constituents Sampled	Container Description	Preservative
BTEX, Sulfate, Nitrate, Phosphate,		
Ferrous Iron		

Remarks: Yellow oil staining on bailer; sheen in purge water; put oil absorbent sock in well; no parameters collected

Sampling Personnel: Kelly Blanchard, 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

APPENDIX B

LABORATORY ANALYTICAL REPORT

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

Conoco Phillips

Certificate of Analysis Number:

08071595

Report To:		Project Name:	COP BCom #1E
Tetra Tech EM, Inc.		Site:	Farmington, NM
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	4509596739
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	8/6/2008
ph: (505) 881-3188	fax:		

This Report Contains A Total Of 15 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

8/7/2008

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:

08071595

Report To:		Project Name:	COP BCom #1E
Tetra Tech EM, Inc.		Site:	Farmington, NM
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	4509596739
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	8/6/2008
ph: (505) 881-3188	fax:		

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.

Bethany Agarwal

Bethany A. Agarwal
Senior 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:

08071595

Report To:	Tetra Tech EM, Inc. Kelly Blanchard 6121 Indian School Road, N.E. Suite 200 Albuquerque NM 87110- ph: (505) 881-3188 fax: (505) 881-3283	**Project Name:**	COP BCom #1E
		Site:	Farmington, NM
		Site Address:	
		PO Number:	4509596739
		State:	New Mexico
Fax To:		**State Cert. No.:**	
		Date Reported:	8/6/2008

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-6	08071595-01	Water	7/24/2008 4:10:00 PM	7/26/2008 10:00:00 AM		☐
MW-1	08071595-02	Water	7/24/2008 4:50:00 PM	7/26/2008 10:00:00 AM		☐
Duplicate	08071595-03	Water	7/24/2008 4:55:00 PM	7/26/2008 10:00:00 AM		☐
Trip Blank	08071595-04	Water	7/24/2008 4:50:00 PM	7/26/2008 10:00:00 AM		☐

Bethany Agarwal

8/7/2008

Bethany A. Agarwal
Senior Project Manager

Date

Richard R. Reed
Laboratory Director

Ted Yen
Quality Assurance Officer

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

Client Sample ID: MW-6 **Collected:** 07/24/2008 16:10 **SPL Sample ID:** 08071595-01

Site: Farmington, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ION CHROMATOGRAPHY				**MCL**	**E300.0**	**Units: mg/L**	
Ortho-phosphate (As P)	ND		0.5	1	07/26/08 12:31	A_E	4592091
Sulfate	44.4		2	4	07/28/08 23:30	A_E	4596427
Nitrogen,Nitrite (As N)	ND		0.5	1	07/26/08 12:31	A_E	4591673
METALS BY METHOD 6010B, TOTAL				**MCL**	**SW6010B**	**Units: mg/L**	
Iron	28.5		0.02	1	08/02/08 14:31	EG	4606676

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	07/29/2008 18:40	DDW	1.00

VOLATILE ORGANICS BY METHOD 8260B					MCL	SW8260B	Units: ug/L	
Benzene	ND		5		1	07/30/08 8:13	LU_L	4604320
Ethylbenzene	ND		5		1	07/30/08 8:13	LU_L	4604320
Toluene	ND		5		1	07/30/08 8:13	LU_L	4604320
m,p-Xylene	ND		5		1	07/30/08 8:13	LU_L	4604320
o-Xylene	ND		5		1	07/30/08 8:13	LU_L	4604320
Xylenes,Total	ND		5		1	07/30/08 8:13	LU_L	4604320
Surr: 1,2-Dichloroethane-d4	90.0		%	62-130	1	07/30/08 8:13	LU_L	4604320
Surr: 4-Bromofluorobenzene	96.0		%	70-130	1	07/30/08 8:13	LU_L	4604320
Surr: Toluene-d8	96.0		%	74-122	1	07/30/08 8:13	LU_L	4604320

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-1 **Collected:** 07/24/2008 16:50 **SPL Sample ID:** 08071595-02

Site: Farmington, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ION CHROMATOGRAPHY				**MCL**	**E300.0**	**Units: mg/L**	
Ortho-phosphate (As P)	ND		0.5	1	07/26/08 12:47	A_E	4592092
Sulfate	4.76		0.5	1	07/29/08 0:19	A_E	4596430
Nitrogen,Nitrite (As N)	ND		0.5	1	07/26/08 12:47	A_E	4591674
METALS BY METHOD 6010B, TOTAL				**MCL**	**SW6010B**	**Units: mg/L**	
Iron	17.2		0.02	1	08/02/08 14:36	EG	4606677

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	07/29/2008 18:40	DDW	1.00

VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	ND		5	1	07/30/08 8:42	LU_L	4604321
Ethylbenzene	90		5	1	07/30/08 8:42	LU_L	4604321
Toluene	ND		5	1	07/30/08 8:42	LU_L	4604321
m,p-Xylene	35		5	1	07/30/08 8:42	LU_L	4604321
o-Xylene	ND		5	1	07/30/08 8:42	LU_L	4604321
Xylenes,Total	35		5	1	07/30/08 8:42	LU_L	4604321
Surr: 1,2-Dichloroethane-d4	92.0	%	62-130	1	07/30/08 8:42	LU_L	4604321
Surr: 4-Bromofluorobenzene	98.0	%	70-130	1	07/30/08 8:42	LU_L	4604321
Surr: Toluene-d8	96.0	%	74-122	1	07/30/08 8:42	LU_L	4604321

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: Duplicate **Collected:** 07/24/2008 16:55 **SPL Sample ID:** 08071595-03

Site: Farmington, 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		5	1	07/30/08 9:11	LU_L	4604322
Ethylbenzene	110		5	1	07/30/08 9:11	LU_L	4604322
Toluene	ND		5	1	07/30/08 9:11	LU_L	4604322
m,p-Xylene	59		5	1	07/30/08 9:11	LU_L	4604322
o-Xylene	ND		5	1	07/30/08 9:11	LU_L	4604322
Xylenes,Total	59		5	1	07/30/08 9:11	LU_L	4604322
Surr: 1,2-Dichloroethane-d4	92.0		% 62-130	1	07/30/08 9:11	LU_L	4604322
Surr: 4-Bromofluorobenzene	98.0		% 70-130	1	07/30/08 9:11	LU_L	4604322
Surr: Toluene-d8	96.0		% 74-122	1	07/30/08 9:11	LU_L	4604322

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:** 07/24/2008 16:50 **SPL Sample ID:** 08071595-04

Site: Farmington, 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		5	1	07/30/08 4:52	LU_L	4604319
Ethylbenzene	ND		5	1	07/30/08 4:52	LU_L	4604319
Toluene	ND		5	1	07/30/08 4:52	LU_L	4604319
m,p-Xylene	ND		5	1	07/30/08 4:52	LU_L	4604319
o-Xylene	ND		5	1	07/30/08 4:52	LU_L	4604319
Xylenes,Total	ND		5	1	07/30/08 4:52	LU_L	4604319
Surr: 1,2-Dichloroethane-d4	88.0		% 62-130	1	07/30/08 4:52	LU_L	4604319
Surr: 4-Bromofluorobenzene	96.0		% 70-130	1	07/30/08 4:52	LU_L	4604319
Surr: Toluene-d8	96.0		% 74-122	1	07/30/08 4:52	LU_L	4604319

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

Quality Control Report

Conoco Phillips

COP BCom #1E

Analysis: Metals by Method 6010B, Total
Method: SW6010B

WorkOrder: 08071595
Lab Batch ID: 82221

Method Blank

RunID: TJA_080802A-4606666 Units: mg/L
Analysis Date: 08/02/2008 13:45 Analyst: EG
Preparation Date: 07/29/2008 18:40 Prep By: DD Method SW3010A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08071595-01B	MW-6
08071595-02B	MW-1

Analyte	Result	Rep Limit
Iron	ND	0.02

Laboratory Control Sample (LCS)

RunID: TJA_080802A-4606667 Units: mg/L
Analysis Date: 08/02/2008 13:50 Analyst: EG
Preparation Date: 07/29/2008 18:40 Prep By: DD Method SW3010A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Iron	1.000	1.063	106.3	80	120

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

Sample Spiked: 08071570-04
RunID: TJA_080802A-4606669 Units: mg/L
Analysis Date: 08/02/2008 13:59 Analyst: EG
Preparation Date: 07/29/2008 18:40 Prep By: DD Method SW3010A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Iron	1.379	1	2.358	97.92	1	2.249	87.08	4.704	20	75	125

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.

8/7/2008 12:45:18 PM

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Quality Control Report

Conoco Phillips

COP BCom #1E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 08071595
Method: SW8260B **Lab Batch ID:** R246994

Method Blank

RunID: K_080729H-4604318 Units: ug/L
Analysis Date: 07/30/2008 4:23 Analyst: LU_L
Preparation Date: 07/30/2008 4:23 Prep By: Method

Analyte	Result	Rep Limit
Benzene	ND	5.0
Ethylbenzene	ND	5.0
Toluene	ND	5.0
m,p-Xylene	ND	5.0
o-Xylene	ND	5.0
Xylenes,Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	92.0	62-130
Surr: 4-Bromofluorobenzene	94.0	70-130
Surr: Toluene-d8	98.0	74-122

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08071595-01C	MW-6
08071595-02C	MW-1
08071595-03C	Duplicate
08071595-04C	Trip Blank

Laboratory Control Sample (LCS)

RunID: K_080729H-4604317 Units: ug/L
Analysis Date: 07/30/2008 3:54 Analyst: LU_L
Preparation Date: 07/30/2008 3:54 Prep By: Method

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	20.0	18.0	90.0	76	126
Ethylbenzene	20.0	18.0	90.0	67	122
Toluene	20.0	18.0	90.0	70	131
m,p-Xylene	40.0	35.0	87.5	72	150
o-Xylene	20.0	19.0	95.0	78	141
Xylenes,Total	60	54	90	72	150
Surr: 1,2-Dichloroethane-d4	50.0	46	92.0	62	130
Surr: 4-Bromofluorobenzene	50.0	49	98.0	70	130
Surr: Toluene-d8	50.0	49	98.0	74	122

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

Sample Spiked: 08071558-02
RunID: K_080729H-4604324 Units: ug/L
Analysis Date: 07/30/2008 11:06 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

COP BCom #1E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 08071595
Method: SW8260B **Lab Batch ID:** R246994

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	20.0	100	20	20.0	100	0	22	76	127
Ethylbenzene	ND	20	20.0	100	20	19.0	95.0	5.13	20	35	175
Toluene	ND	20	20.0	100	20	19.0	95.0	5.13	24	70	131
m,p-Xylene	ND	40	40.0	100	40	38.0	95.0	5.13	20	35	175
o-Xylene	ND	20	21.0	105	20	20.0	100	4.88	20	35	175
Xylenes,Total	ND	60	61	100	60	58	97	5.0	20	35	175
Surr: 1,2-Dichloroethane-d4	ND	50	47	94.0	50	47.0	94.0	0	30	62	130
Surr: 4-Bromofluorobenzene	ND	50	49	98.0	50	48.0	96.0	2.06	30	70	130
Surr: Toluene-d8	ND	50	49	98.0	50	49.0	98.0	0	30	74	122

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.

8/7/2008 12:45:18 PM

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Quality Control Report

Conoco Phillips

COP BCom #1E

Analysis: Ion Chromatography
Method: E300.0

WorkOrder: 08071595
Lab Batch ID: R246276L

Method Blank

RunID: IC1_080725A-4591667 Units: mg/L
Analysis Date: 07/26/2008 10:36 Analyst: A_E

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08071595-01A	MW-6
08071595-02A	MW-1

Analyte	Result	Rep Limit
Nitrogen,Nitrite (As N)	ND	0.50

Laboratory Control Sample (LCS)

RunID: IC1_080725A-4591668 Units: mg/L
Analysis Date: 07/26/2008 10:52 Analyst: A_E

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Nitrogen,Nitrite (As N)	10.00	10.06	100.6	85	115

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

Sample Spiked: 08071588-01
RunID: IC1_080725A-4591670 Units: mg/L
Analysis Date: 07/26/2008 11:25 Analyst: A_E

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Nitrogen,Nitrite (As N)	ND	10	9.452	93.92	10	9.454	93.94	0.02116	20	80	120

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

COP BCom #1E

Analysis: Ion Chromatography **WorkOrder:** 08071595
Method: E300.0 **Lab Batch ID:** R246284L

Method Blank

RunID: IC1_080725D-4592085 Units: mg/L
Analysis Date: 07/26/2008 10:36 Analyst: A_E

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08071595-01A	MW-6
08071595-02A	MW-1

Analyte	Result	Rep Limit
Ortho-phosphate (As P)	ND	0.50

Laboratory Control Sample (LCS)

RunID: IC1_080725D-4592086 Units: mg/L
Analysis Date: 07/26/2008 10:52 Analyst: A_E

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Ortho-phosphate (As P)	10.00	10.24	102.4	85	115

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

Sample Spiked: 08071588-01
RunID: IC1_080725D-4592088 Units: mg/L
Analysis Date: 07/26/2008 11:25 Analyst: A_E

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Ortho-phosphate (As P)	0.8230	10	10.33	95.11	10	10.28	94.54	0.5531	20	80	120

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

COP BCom #1E

Analysis: Ion Chromatography
Method: E300.0

WorkOrder: 08071595
Lab Batch ID: R246534D

Method Blank

RunID: IC1_080728C-4596425 Units: mg/L
Analysis Date: 07/28/2008 22:57 Analyst: A_E

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08071595-01A	MW-6
08071595-02A	MW-1

Analyte	Result	Rep Limit
Sulfate	ND	0.50

Laboratory Control Sample (LCS)

RunID: IC1_080728C-4596426 Units: mg/L
Analysis Date: 07/28/2008 23:13 Analyst: A_E

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Sulfate	10.00	10.02	100.2	85	115

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

Sample Spiked: 08071595-01
RunID: IC1_080728C-4596428 Units: mg/L
Analysis Date: 07/28/2008 23:46 Analyst: A_E

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Sulfate	44.41	40	88.46	110.1	40	88.45	110.1	0.01583	20	80	120

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:	08071595	Received By:	RE
Date and Time Received:	7/26/2008 10:00:00 AM	Carrier name:	Fedex-Priority
Temperature:	3.0°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 ☑	
	1.Client did not specify what method for Iron (Total or Ferrous) on chain of custody			
8.	Sample containers intact?	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: Rodriguez, Alisha Christine
Contact Date & Time: 7/28/2008 4:27:00 PM
Client Name Contacted: Christine Matthews

Non Conformance Issues:

Client Instructions: Please log in Fe by Method 6010not Fe+2 per client.

Chain of Custody Record

Client: Tetra Tech/ Conoco Phillips — SPL Workorder Number: 08071595

Attention: Kelly Blanchard/Tetra Tech

Phone: 505-237-3440 | email: kelly.blanchard@tetratech.c

Address: 6121 Indian School Road, NE Ste. 200

City: Albuquerque | State: NM | Zip Code: 87110

Project Name: [redacted] B-COM #1E 6079

P.O. Number:

Sampled By: Christie Mathews

Signature: Christie Mathews

Sample ID	Collected Date	Collected Time	Sample Type Comp	Sample Type Grab	Matrix Water	Matrix Soil	Bottle Type	Preservative Type	# of Containers	Requested Analysis: B260- BTEX	SO4/NO2	[illegible]	A4	LR
MW-6	7/24	1610		X	X		3	1	2		X		X	
MW-6	7/24	1610		X	X		6	2	1					X
MW-6	7/24	1610		X	X		1	3	3	X				
MW-1	7/24	1650		X	X		3	1	2		X		X	
MW-1	7/24	1650		X	X		6	2	1					X
MW-1	7/24	1650		X	X		1	3	3	X				
Duplicate	7/24	1655		X	X		1	3	3	X				
Trip Blank	7/24	1650		X	X		1	3	3	X				

RUSH

Turnaround Time Requirements
24 hr( ) 48 hr( )
72 hr( ) 5 wkdy( )
10 wkdy - Standard( )

Remarks:

Intact? Y or N
Temperature: 3.0c

Bottle Types: 1: 3/40ml Vials 2. 1L Glass 3. 1L Plastic 4. 1L Amber Glass 5. 8oz Plastic 6. 16oz Plast

Preservative Types: 1: NONE 2. HNO3 3. HCL 4. H2SO4

Relinquished by: Sampler	Date	Time	Received by:
Christie Mathews	7/25/08	1000 ~~1115~~	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 7/26/08	Time 1000	Received by: SPL Inc.

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