3R - 434

JUNE 2011 GWMR

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JUNE 2011 QUARTERLY GROUNDWATER MONITORING REPORT

CONOCOPHILLIPS FAYE BURDETTE No. 1
SAN JUAN COUNTY, NEW MEXICO

API# 30-045-09725

NMOCD# TBD

Prepared For:

CONOCOPHILLIPS COMPANY

Risk Management and Remediation

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1.0 INTRODUCTION

This report presents the results of quarterly groundwater monitoring completed by Conestoga-Rovers & Associates (CRA) on June 22, 2011, at the ConocoPhillips Company Faye Burdette No. 1 site, located on private land in Unit Letter G, Section 9, Township 30N, Range 11W of San Juan County, New Mexico (Site). This event represents the twelfth quarter of groundwater sampling conducted at the Site.

The Site is located near the intersection of Highway 550 and Pioneer Avenue in Aztec, NM. The Site consists of a gas wellhead and associated equipment and installations. The location and general features of the Site are presented as **Figures 1** and **2**, respectively. A generalized geologic cross section of the site is included as **Figure 3**.

1.1 BACKGROUND

The Faye Burdette No. 1 wellhead was spudded by Southwest Production Company in April 1962. Ownership was transferred to Beta Development Company in September 1963 and again to Mesa Operating Limited Partnership in August 1988. Conoco Inc., predecessor to ConocoPhillips Company, acquired the well in July 1991. A release occurred in May 2007 from a rusted portion of the on-site produced water tank. Evidence of pre-existing hydrocarbon impacted soil was encountered during excavation, possibly related to a former earthen pit. Temporary Monitor Well MW-1 was drilled by Envirotech in September 2007. Groundwater samples from MW-1 indicated that benzene, toluene, ethylbenzene, and xylenes (BTEX) were below the New Mexico Water Quality Control Commission (NMWQCC) standards.

To complete additional investigation and sampling of the Site, as requested by the New Mexico Oil Conservation Division (NMOCD), Monitor Wells MW-2, MW-3, and MW-4 were installed under the supervision of Tetra Tech Inc. (Tetra Tech) during January 2009. All four monitor wells have been incorporated into a quarterly monitoring program that was initiated on January 29, 2009. On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech to CRA of Albuquerque, NM. Site history is outlined in **Table 1**.

2.0 GROUNDWATER MONITORING SUMMARY, METHODOLOGY, AND ANALYTICAL RESULTS

2.1 GROUNDWATER MONITORING SUMMARY

On June 22, 2011, groundwater elevation measurements were obtained for Monitor Wells MW-1, MW-2, MW-3, and MW-4 using a dual interface probe. Groundwater elevations are detailed in **Table 2**. A groundwater elevation contour map is presented as **Figure 4.** Based on the June 2011 monitoring event data, groundwater flow is to the northwest and is consistent with historical records for this site. The Animas River is approximately 1/3 mile from the site and flows west.

2.2 GROUNDWATER MONITORING METHODOLOGY

Monitor Wells MW-1, MW-2, MW-3, and MW-4 were sampled during the June quarterly sampling event. Approximately three well volumes were purged from each monitor well with a dedicated polyethylene 1.5-inch disposable bailer. Purge water was placed in the on-site produced water tank. Groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain of custody documentation to Accutest Laboratories in Houston, Texas. The samples were analyzed for the presence of dissolved manganese according to EPA Method 6010B. Groundwater sampling field forms are included as **Appendix A**.

2.3 GROUNDWATER MONITORING ANALYTICAL RESULTS

Laboratory analysis of groundwater quality samples collected during the June 22, 2011 monitoring event revealed that the sample from Monitor Well MW-1 exceeds the NMWQCC standard for dissolved manganese at 0.368 milligrams per liter (mg/L). The NMWQCC standard for dissolved manganese is 0.2 mg/L. **Table 3** summarizes the laboratory analytical results for the June 2011 groundwater sampling event. The corresponding laboratory analytical report is included in **Appendix B**.

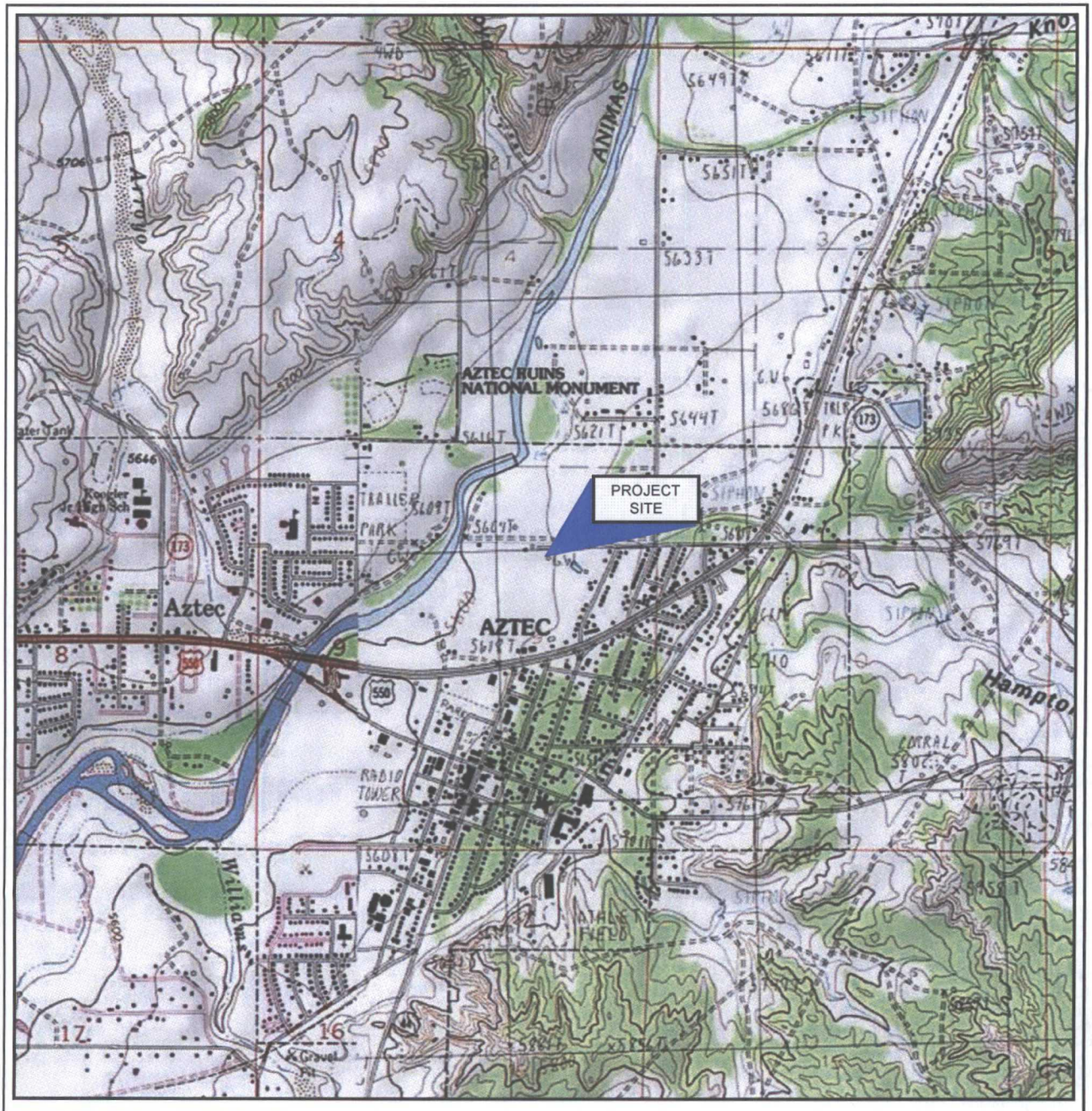
3.0 CONCLUSIONS AND RECOMMENDATIONS

Groundwater samples collected from MW-1, MW-2, MW-3, and MW-4 on June 22, 2011, were not analyzed for BTEX constituents, which have been below laboratory detection limits since groundwater sampling began.

Groundwater samples collected from MW-1 have continually exceeded NMWQCC groundwater quality standards for manganese constituents from October 2008 to June 2011.

Quarterly analysis for dissolved manganese will continue for all Site wells. Site closure will be requested when groundwater quality results begin to indicate that all monitored groundwater quality parameters are consistently below NMWQCC groundwater quality standards, are stable, or are representative of background conditions at the Site.

FIGURES



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

N

0 1000 2000ft

Figure 1

SITE VICINITY MAP
FAYE BURDETTE No. 1 GAS WELL SITE
SECTION 22, T30N-R12W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

CRA

074929-95(002)GN-DL005 DEC 6/2011

ConocoPhillips high resolution aerial imagery 2008.

Figure 2

SITE DETAIL MAP
FAYE BURDETTE NO. 1 GAS WELL SITE
SECTION 09, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

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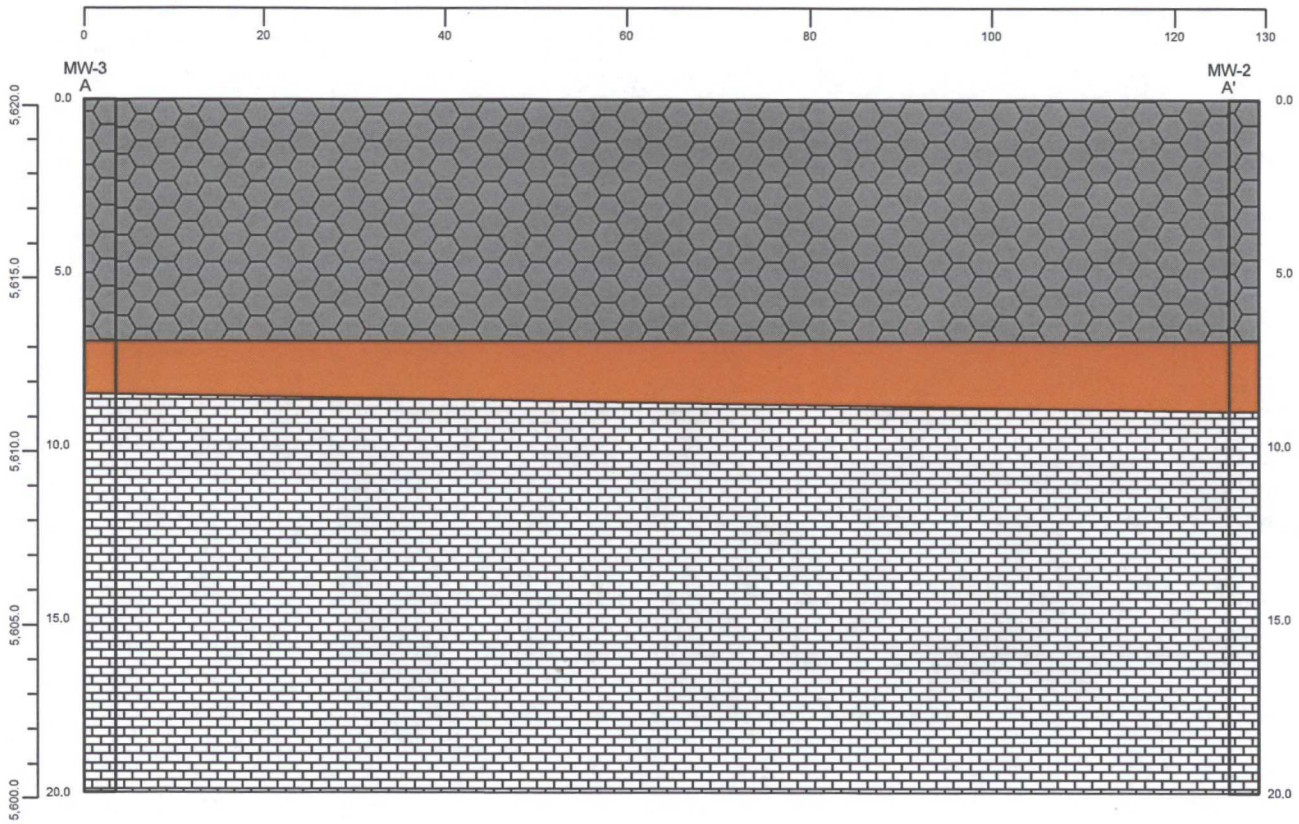

H: 1"= 20'
V: 1"= 10'

Figure 3

GEOLOGICAL CROSS SECTION
FAYE BURDETTE NO. 1 GAS WELL SITE
SECTION 09, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

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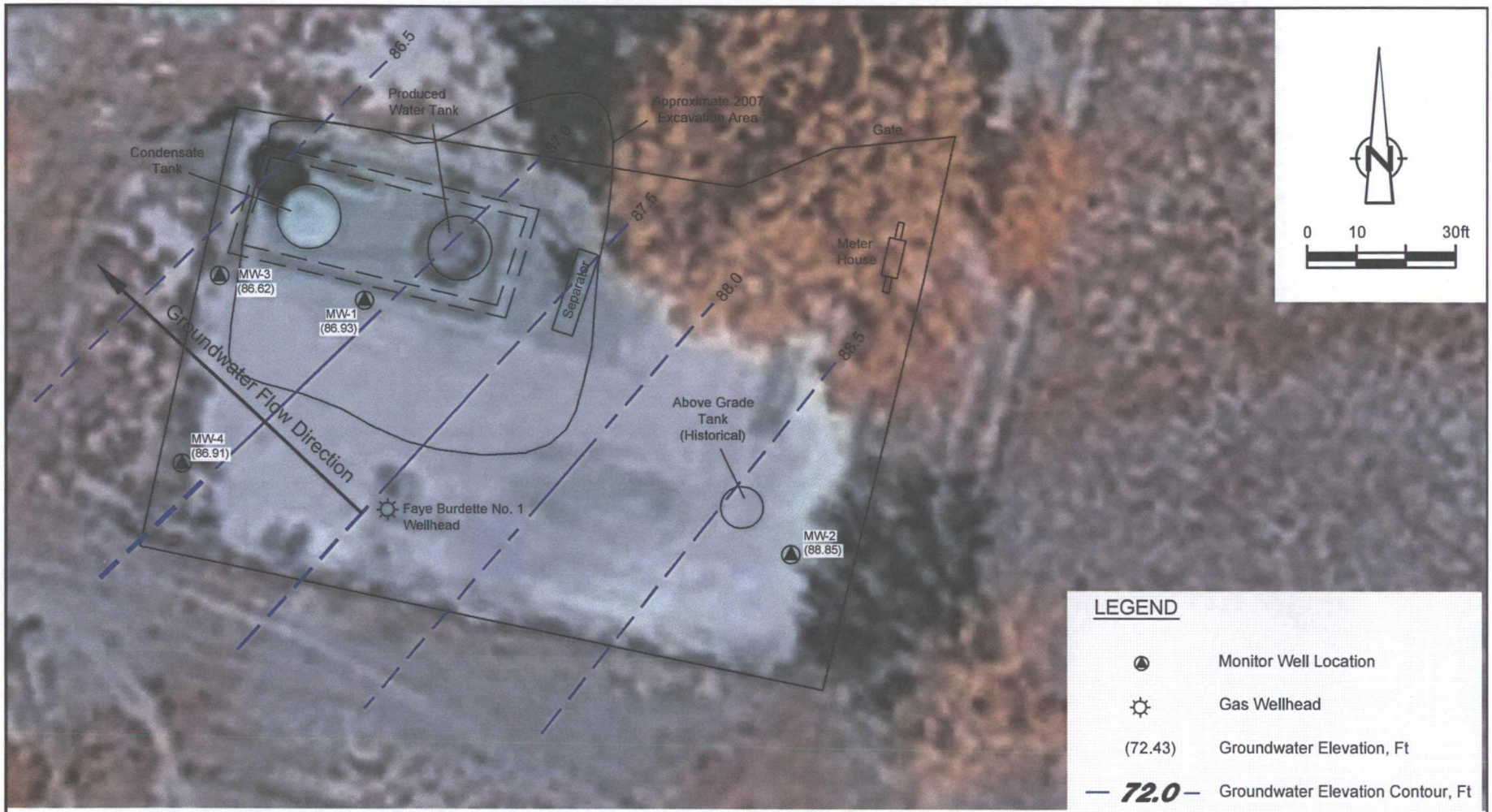

ConocoPhillips high resolution aerial imagery 2008.

Figure 4

JUNE 2011 GROUNDWATER POTENTIOMETRIC SURFACE MAP
FAYE BURDETTE NO. 1 GAS WELL SITE
SECTION 09, T30N-R11W, SAN JUAN COUNTY, NEW MEXICO
ConocoPhillips Company

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TABLES

TABLE 1

SITE HISTORY TIMELINE
CONOCOPHILLIPS COMPANY
FAYE BURDETTE NO. 1
SAN JUAN COUNTY, NEW MEXICO

DATE	*Event/Action*	*ACTIVITY*
April 29, 1962	Well spudded	Well was spudded by Southwest Production Company.
September 1, 1963	Ownership transfer	Ownership of well transferred to Beta Development Company.
February 21, 1983	NMOCD inspection	NMOCD inspection noted a leaky 2-inch valve on a storage tank.
August 15, 1988	Ownership transfer	Ownership of well transferred to Mesa Operating Limited Partnership.
July 1, 1991	Ownership transfer	Ownership of well transferred to Conoco Inc.
May 24, 2007	Release from produced water tank	A small (<25 gallons) release occurred from the produced water tank after a rusty spot was scraped off. Follow-up excavation encountered evidence of pre-existing hydrocarbon-impacted soil, apparently related to a former earthen pit beneath the tank.
July 1, 2007	Initial site assessment	Contaminated soil excavated from the Site. Two ground water samples were obtained at the time of this excavation, and one (1) of these samples was found to contain total xylenes above the State of New Mexico drinking water standard.
September 26, 2007	Monitor well installation/Site assessment	Ground water monitor well installed to a depth of 15 feet below ground surface (bgs) by Envirotech Inc. of Farmington, NM (Envirotech). A soil sample obtained from the well boring was analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH). Results were below NMOCD regulations of 10 parts per million (ppm), 50 ppm, and 100 ppm, respectively.
	Site assessment	A ground water sample was collected from the temporary Monitor Well (MW-1) and analyzed for BTEX; results were below the State of New Mexico drinking water standard for this constituent. Depth to ground water recorded at 9.5 feet bgs.
November 1, 2007	Envirotech recommendation	Envirotech report recommends plugging and abandonment of the temporary ground water monitor well and a no further action determination for the Site (Envirotech, 2007).
April 8, 2008	Additional monitoring requested by OCD	Oil Conservation Division of NM Energy, Minerals, and Resources Dept. indicates additional investigation and sampling is necessary for closure consideration during a meeting between Tetra Tech and Glenn Von Gonten.
October 22, 2008	Groundwater monitoring	1st quarter sampling of MW-1 conducted by Tetra Tech.
January 9, 2009	Installation of additional monitor wells	WDC Exploration and Wells of Peralta, NM installed additional Monitor Wells MW-2, MW-3 and MW-4 under the supervision of Tetra Tech.
January 29, 2009	Groundwater monitoring	Second quarter sampling of MW-1 conducted by Tetra Tech. Initial sampling of Monitor Wells MW-2, MW-3, and MW-4.
March 31, 2009	Groundwater monitoring	Third consecutive quarter of sampling MW-1 conducted by Tetra Tech. Second quarter sampling of Monitor Wells MW-2, MW-3, and MW-4.
June 17, 2009	Groundwater monitoring	Fourth consecutive quarter of sampling MW-1 conducted by Tetra Tech. Third quarter of sampling Monitor Wells MW-2, MW-3, and MW-4.
September 22, 2009	Groundwater monitoring	Fifth consecutive quarter of sampling MW-1 by Tetra Tech. Fourth consecutive quarter of sampling Monitor Wells MW-2, MW-3, and MW-4. Sampling for total metals discontinued as approved by NMOCD. Sampling for select dissolved metals based on total metals analyses begins.
December 16, 2009	Groundwater monitoring	Sixth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Fifth consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
April 1, 2010	Groundwater monitoring	Seventh consecutive quarter sampling of MW-1 conducted by Tetra Tech. Sixth consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
June 9, 2010	Groundwater monitoring	Eighth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Seventh consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
September 20, 2010	Groundwater monitoring	Ninth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Eighth consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
December 17, 2010	Groundwater monitoring	Tenth consecutive quarter sampling of MW-1 conducted by Tetra Tech. Ninth consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
March 16, 2011	Groundwater monitoring	Eleventh consecutive quarter sampling of MW-1 conducted by Tetra Tech. Tenth consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only. Tetra Tech recommended that sampling for BTEX be discontinued.
June 15, 2011	Transfer of site consulting responsibilities	On June 15, 2011, Site consulting responsibilities were transferred from Tetra Tech of Albuquerque, NM to Conestoga-Rovers & Associates (CRA) of Albuquerque, NM.
June 22, 2011	Groundwater monitoring	Twelfth consecutive quarter sampling of MW-1. Eleventh consecutive quarter sampling of Monitor Wells MW-2, MW-3, and MW-4. Samples analyzed for dissolved manganese only.

TABLE 2

MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
OCTOBER 2008 - JUNE 2011
CONOCOPHILLIPS COMPANY
SAN JUAN COUNTY, NEW MEXICO
FAYE BURDERRTE NO. 1

Well ID	*Total Depth (ft below TOC)*	*Elevation**	*Screen Interval (ft bgs)*	*Date Measured*	*Depth to Groundwater (ft below TOC)*	*Relative Water Level*
MW-1	17.52	97.66	4.8-14.8	10/22/2008	10.91	86.75
				01/29/2009	11.72	85.94
				03/31/2009	11.88	85.78
				06/17/2009	11.24	86.42
				09/22/2009	10.87	86.79
				12/16/2009	11.56	86.1
				04/01/2010	11.91	85.75
				06/09/2010	11.31	86.35
				09/20/2010	11.39	86.27
				12/17/2010	11.06	86.6
				03/16/2011	11.39	86.27
				06/22/2011	10.73	86.93
MW-2	19.45	98.54	5-20	01/29/2009	10.91	87.63
				03/31/2009	11.12	87.42
				06/17/2009	10.48	88.06
				09/22/2009	10.76	87.78
				12/16/2009	10.61	87.93
				04/01/2010	11.2	87.34
				06/09/2010	10.35	88.19
				09/20/2010	10.35	88.19
				12/17/2010	10.1	88.44
				03/16/2011	10.7	87.84
				06/22/2011	9.69	88.85
MW-3	22.96	97.16	5-20	01/29/2009	11.44	85.72
				03/31/2009	11.62	85.54
				06/17/2009	10.97	86.19
				09/22/2009	10.57	86.59
				12/16/2009	11.32	85.84
				04/01/2010	11.66	85.5
				06/09/2010	11.1	86.06
				09/20/2010	11.17	85.99
				12/17/2010	10.84	86.32
				03/16/2011	11.16	86
				06/22/2011	10.54	86.62
MW-4	22.28	97.06	5-20	01/29/2009	11.02	86.04
				03/31/2009	11.18	85.88
				06/17/2009	10.59	86.47
				09/22/2009	10.16	86.9
				12/16/2009	10.87	86.19
				04/01/2010	11.04	86.02
				06/09/2010	10.65	86.41
				09/20/2010	10.72	86.34
				12/17/2010	10.46	86.6
				03/16/2011	10.84	86.22
				06/22/2011	10.15	86.91

Notes:

1. ft = Feet
2. TOC = Top of casing
3. bgs = below ground surface
4. * Elevation relative to an arbitrary point set at 100 feet

TABLE 3

GROUNDWATER ANALYTICAL RESULTS SUMMARY
OCTOBER 2008 - JUNE 2011
CONOCOPHILLIPS COMPANY
SAN JUAN COUNTY, NEW MEXICO
FAY BURDETTE NO. 1

Well ID	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	Aluminum (dissolved) (mg/L)	Aluminum (mg/L)	Iron (dissolved) (mg/L)	Iron (mg/L)	Manganese (dissolved) (mg/L)	Manganese (mg/L)
MW-1	10/22/2008	<0.005	<0.005	<0.005	<0.005	--	--	--	3.74	--	2.09
	1/29/2009	<0.005	<0.005	<0.005	<0.005	--	2.14	--	2.77	--	1.41
	3/31/2009	<0.005	<0.005	<0.005	<0.005	--	3.64	--	4.83	--	1.24
	6/17/2009	<0.005	<0.005	<0.005	<0.005	--	2.5	--	5.58	--	2.47
	9/22/2009	<0.001	<0.001	<0.001	<0.001	0.443	--	0.445	--	**1.44**	--
	12/16/2009	<0.001	<0.001	<0.001	<0.001	--	--	--	--	**0.732**	--
	4/1/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	**1.71**	--
	6/9/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	**1.61**	--
	9/20/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	**0.895**	--
	12/17/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	**0.773**	--
	3/16/2011	<0.001	<0.001	<0.001	<0.001	--	--	--	--	**2.23**	--
	6/22/2011	--	--	--	--	--	--	--	--	**0.368**	--
MW-1 Duplicate	1/29/2009	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
	3/31/2009	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
	6/17/2009	<0.005	<0.005	<0.005	<0.005	--	2.83	--	6.13	--	2.52
	9/22/2009	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--
	12/16/2009	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--
	4/1/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--
	6/9/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--
	9/20/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--
	12/17/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--
	3/16/2011	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	--
MW-2	1/29/2009	<0.005	<0.005	<0.005	<0.005	--	4.15	--	3.15	--	1.79
	3/31/2009	<0.005	<0.005	<0.005	<0.005	--	1.17	--	1.02	--	0.326
	6/17/2009	<0.005	<0.005	<0.005	<0.005	--	3.4	--	2.8	--	1.37
	9/22/2009	<0.001	<0.001	<0.001	<0.001	<0.1	--	<0.02	--	0.0264	--
	12/16/2009	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.0654	--
	4/1/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.16	--
	6/9/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.0323	--
	9/20/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.0455	--
	12/17/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.0332	--
	3/16/2011	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.0265	--
	6/22/2011	--	--	--	--	--	--	--	--	0.0232	--
MW-3	1/29/2009	<0.005	<0.005	<0.005	<0.005	--	1.82	--	2.24	--	0.374
	3/31/2009	<0.005	<0.005	<0.005	<0.005	--	1.64	--	1.91	--	0.271
	6/17/2009	<0.005	<0.005	<0.005	<0.005	--	1.68	--	2.14	--	0.628
	9/22/2009	<0.001	<0.001	<0.001	<0.001	<0.1	--	0.0291	--	0.0201	--
	12/16/2009	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.0607	--
	4/1/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.0232	--
	6/9/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	<0.005	--
	9/20/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	<0.005	--
	12/17/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.178	--
	3/16/2011	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.0424	--
	6/22/2011	--	--	--	--	--	--	--	--	0.0311	--
MW-4	1/29/2009	<0.005	<0.005	<0.005	<0.005	--	6.92	--	3.17	--	4.15
	3/31/2009	<0.005	<0.005	<0.005	<0.005	--	4.21	--	3.22	--	1.45
	6/17/2009	<0.005	<0.005	<0.005	<0.005	--	2.43	--	2.05	--	0.854
	9/22/2009	<0.001	<0.001	<0.001	<0.001	<0.1	--	0.108	--	**0.476**	--
	12/16/2009	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.0149	--
	4/1/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	<0.005	--
	6/9/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	<0.005	--
	9/20/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.0152	--
	12/17/2010	<0.001	<0.001	<0.001	<0.001	--	--	--	--	0.0502	--
	3/16/2011	<0.001	<0.001	<0.001	<0.001	--	--	--	--	<0.005	--
	6/22/2011	--	--	--	--	--	--	--	--	<0.015	--
NMWQCC Groundwater Quality Standards		**0.01**	**0.75**	**0.75**	**0.62**	**5.0**	**NE**	**1**	**NE**	**0.2**	**NE**

Notes:
1. MW = monitoring well
2. NMWQCC = New Mexico Water Quality Control Commission
3. Constituents in **BOLD** are in excess of NMWQCC groundwater quality standards
4. mg/L = milligrams per liter (parts per million)
5. < 1.0 = Below laboratory detection limit of 1.0 mg/L
6. NE = not established

APPENDIX A

JUNE 2011 QUARTERLY GROUNDWATER SAMPLING FIELD FORMS

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Faye Burdette No. 1 JOB# 074929

SAMPLE ID: GW-74929-062211-PG-004 WELL# MW-1

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
06/22/11	6/22/11	1055	1.06	3.75

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	G	B - PERISTALTIC PUMP C - BLADDER PUMP	E - PURGE PUMP F - DIPPER BOTTLE	H - WATERRA® X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	E	B - STAINLESS STEEL C - POLYPROPYLENE	E - POLYETHYLENE X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	E	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C	B - TYGON C - ROPE	E - POLYETHYLENE F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 10.73 (feet) WELL ELEVATION 97.66 (feet)

WELL DEPTH 17.41 (feet) GROUNDWATER ELEVATION 86.93 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
14.39 (°C)	7.10 (std)	(g/L)	3078 (µS/cm)	48.3 (mV)	3.0 (gal)
14.44 (°C)	7.02 (std)	(g/L)	3081 (µS/cm)	16.8 (mV)	3.5 (gal)
14.55 (°C)	6.98 (std)	(g/L)	3109 (µS/cm)	4.0 (mV)	3.75 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: None COLOR: light brown SHEEN Y (N)

WEATHER CONDITIONS: TEMPERATURE ~75° WINDY Y (N) PRECIPITATION Y (N) IF Y TYPE)

SPECIFIC COMMENTS: Sunny and clear

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS.

6.22.11 Caleb Brown

DATE PRINT SIGNATURE

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Faye Burdette No. 1 JOB# 074929

SAMPLE ID: GW-74929-62211-PG-001 WELL# MW-2

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
6·22·11	6·22·11	1012	1.56	5

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 9.69 (feet) WELL ELEVATION 98.54 (feet)

WELL DEPTH 19.44 (feet) GROUNDWATER ELEVATION 88.85 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
16.23 (°C)	6.72 (std)	(g/L)	2880 (µS/cm)	116.4 (mV)	4 (gal)
15.77 (°C)	6.84 (std)	(g/L)	2839 (µS/cm)	119.3 (mV)	4.25 (gal)
14.93 (°C)	6.89 (std)	(g/L)	2784 (µS/cm)	125.3 (mV)	4.75 (gal)
14.60 (°C)	6.92 (std)	(g/L)	2758 (µS/cm)	126.5 (mV)	5 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: None COLOR: tan SHEEN Y/(N)

WEATHER CONDITIONS: TEMPERATURE ~75° WINDY Y/(N) PRECIPITATION Y/(N) (IF Y TYPE)

SPECIFIC COMMENTS: Sunny and clear

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

DATE	PRINT	SIGNATURE
6·22·11	Cassie Brown	Cassie Brown

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Faye Burdette No. 1 JOB# 074929

SAMPLE ID: GW-74929-062211-PG-003 WELL# MW-3

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
6.22.11	6.22.11	1035	1.97	6.0

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X= PURGING DEVICE OTHER (SPECIFY)
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X= PURGING MATERIAL OTHER (SPECIFY)
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER: 10.54 (feet) WELL ELEVATION: 97.16 (feet)

WELL DEPTH: 22.9 (feet) GROUNDWATER ELEVATION: 86.62 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
14.01 (°C)	7.17 (std)	(g/L)	2719 (µS/cm)	134.8 (mV)	4.5 (gal)
14.07 (°C)	7.11 (std)	(g/L)	2724 (µS/cm)	136.6 (mV)	5.0 (gal)
14.11 (°C)	7.09 (std)	(g/L)	2726 (µS/cm)	134.9 (mV)	6.5 (gal)
14.12 (°C)	7.07 (std)	(g/L)	2731 (µS/cm)	135.8 (mV)	6.0 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: None COLOR: light brown SHEEN Y/(N)

WEATHER CONDITIONS: TEMPERATURE ~75° WINDY Y/(N) PRECIPITATION Y/(N) (IF Y TYPE)

SPECIFIC COMMENTS: Sunny and clear

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

6.22.11 (DATE) Debbie Brown (PRINT) Debbie Brown (SIGNATURE)

WELL SAMPLING FIELD INFORMATION FORM

SITE/PROJECT NAME: Faye Burdette No. 1 JOB# 074929

SAMPLE ID: GW-74929-062211-PG-002 WELL# MW-4

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	SAMPLE TIME (24 HOUR)	WATER VOL. IN CASING (GALLONS)	ACTUAL VOL. PURGED (GALLONS)
6-22-11	6-22-11	1025	1.87	5.75

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X= PURGING DEVICE OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE	G	C - BLADDER PUMP	F - DIPPER BOTTLE	X - OTHER	X= SAMPLING DEVICE OTHER (SPECIFY)
PURGING MATERIAL	E	A - TEFLON	D - PVC		X= PURGING MATERIAL OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING MATERIAL	E	C - POLYPROPYLENE	X - OTHER		X= SAMPLING MATERIAL OTHER (SPECIFY)
PURGE TUBING	C	A - TEFLON	D - POLYPROPYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	X= PURGE TUBING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE		
SAMPLING TUBING	C	C - ROPE	F - SILICONE	X - OTHER	X= SAMPLING TUBING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

DEPTH TO WATER 10.15 (feet) WELL ELEVATION 97.06 (feet)

WELL DEPTH 21.84 (feet) GROUNDWATER ELEVATION 86.91 (feet)

TEMPERATURE	pH	TDS	CONDUCTIVITY	ORP	VOLUME
14.53 (°C)	7.25 (std)	(g/L)	2816 (µS/cm)	138.3 (mV)	4.25 (gal)
14.64 (°C)	7.10 (std)	(g/L)	2823 (µS/cm)	139.9 (mV)	4.75 (gal)
14.53 (°C)	7.06 (std)	(g/L)	2821 (µS/cm)	139.8 (mV)	5.25 (gal)
14.42 (°C)	7.04 (std)	(g/L)	2813 (µS/cm)	139.2 (mV)	5.75 (gal)
(°C)	(std)	(g/L)	(µS/cm)	(mV)	(gal)

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: None COLOR: brown SHEEN Y/(N)

WEATHER CONDITIONS: TEMPERATURE ~75° WINDY Y/(N) PRECIPITATION Y/(N) (IF Y TYPE)

SPECIFIC COMMENTS: Sunny and clear

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

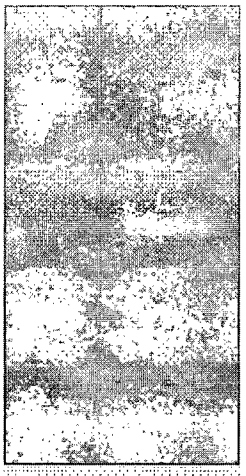
6-22-11 (DATE) Cassie Brown (PRINT) Cassie Brown (SIGNATURE)

APPENDIX B

JUNE 2011 QUARTERLY GROUNDWATER LABORATORY ANALYTICAL REPORT

Gulf Coast
ACCUTEST LABORATORIES

07/07/11



Technical Report for

Conoco Phillips

Faye Burdette No. 1

74929

Accutest Job Number: T79583

Sampling Date: 06/22/11

Report to:

Conestoga Rovers & Associates
6121 Indian School Rd. NE, Ste. 200
Albuquerque, NM 87110
keblanchard@craworld.com; christine.mathews@tetratech.com;
cassandre.brown@tetratech.com
ATTN: Kelly Blanchard

Total number of pages in report: **18**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Erica Cardenas 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103)

Sections: 1 2 3 4

Table of Contents

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Sample Summary

Conoco Phillips

Job No: T79583

Faye Burdette No. 1
Project No: 74929

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T79583-1	06/22/11	10:12	06/24/11	AQ	Groundwater Filtered	GW-74929-062211-PG-01 (DISSOLVED)
T79583-2	06/22/11	00:00	06/24/11	AQ	Groundwater Filtered	GW-74929-062211-PG-02 (DISSOLVED)
T79583-3	06/22/11	10:35	06/24/11	AQ	Groundwater Filtered	GW-74929-062211-PG-03 (DISSOLVED)
T79583-4	06/22/11	10:55	06/24/11	AQ	Groundwater Filtered	GW-74929-062211-PG-04 (DISSOLVED)

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74929-062211-PG-01 (DISSOLVED)		
Lab Sample ID:	T79583-1	**Date Sampled:**	06/22/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Faye Burdette No. 1		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	23.2	15	ug/l	1	07/04/11	07/05/11	EG	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5891
(2) Prep QC Batch: MP15156

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74929-062211-PG-02 (DISSOLVED)		
Lab Sample ID:	T79583-2	**Date Sampled:**	06/22/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Faye Burdette No. 1		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	<15	15	ug/l	1	07/04/11	07/05/11	EG	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5891
(2) Prep QC Batch: MP15156

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74929-062211-PG-03 (DISSOLVED)		
Lab Sample ID:	T79583-3	**Date Sampled:**	06/22/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Faye Burdette No. 1		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	31.1	15	ug/l	1	07/04/11	07/05/11	EG	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5891
(2) Prep QC Batch: MP15156

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	GW-74929-062211-PG-04 (DISSOLVED)		
Lab Sample ID:	T79583-4	**Date Sampled:**	06/22/11
Matrix:	AQ - Groundwater Filtered	**Date Received:**	06/24/11
		Percent Solids:	n/a
Project:	Faye Burdette No. 1		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	368	15	ug/l	1	07/04/11	07/05/11	EG	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5891
(2) Prep QC Batch: MP15156

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST Laboratories

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
10165 Harwin Drive, Suite 150, Houston, TX 77036
TEL.713-271-4700 FAX: 713-271-4770
www.accutest.com

PAGE ___ OF ___

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: T79583

Client / Reporting Information

Company Name: ~~Tetra Tech, Inc.~~ CRA
Street Address: 6121 Indian School Rd. NE, Ste. 200
City: Albuquerque State: NM Zip: 87110
Project Contact: Kelly Blanchard E-mail: kblanchard@cravt.com ~~klitzsch.com~~
Phone #: ~~505-237-8440~~ 505-884-0672 Fax #: 505-237-8656
Sampler(s) Name(s): Phone #:

Project Information

Project Name: Faye Burdette No. 1
Street:
City: State:
Project #: 74929
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name: ConocoPhillips
Street Address: 1358 Phillips Bldg., 420 S. Keeler Ave.
City: Bartlesville State: OK Zip: 74004
Attention: Terry Lauck

Requested Analyses

Dissolved Mn

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	ZnAcH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	Dissolved Mn	LAB USE ONLY
1.	GW-74929-062211-RG-01	6.22.11		GW	1						X							X	
2.	GW-74929-062211-RG-02	6.22.11		GW	1						X							X	
3	GW-74929-062211-RG-03	6.22.11		GW	1						X							X	
4	GW-74929-062211-RG-04	6.22.11		GW	1						X							X	
	~~GW-74929-062211-RG-05~~	~~6.22.11~~		~~GW~~															
	~~trip blank~~	~~6.22.11~~		~~QC~~															
		6.22.11																	

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3 & 4)
- [ ] REDT1 (Level 3 & 4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

~~(*) Al, B, Fe, As, Be, Cd, Cr, Co, Cu, Pb, Mg, Mo, Ni, Se, Ag, Zn, Hg~~
Please filter and preserve @ lab

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Cassie Brown	6.22.11 1230	FEDEX	2 FEDEX	6/24/11 1010	2
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not Intact	Preserved where applicable [ ] On Ice [ ] Cooler Temp.

3.1

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: T79583 **Client:** CRA **Project:** FAYE BURDETTE NO.1

Date / Time Received: 6/24/2011 **Delivery Method:** FedEx **Airbill #'s:** 4868-9990-4850

No. Coolers: 1 **Therm ID:** 110; **Temp Adjustment Factor:** -0.5;

Cooler Temps (Initial/Adjusted): #1: (3.7/3.2);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☐		☑

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Glass Thermometer		
3. Cooler media:	Ice (Bag)		

Quality Control Preservation	Y	or	N	N/A	WTB	STB
1. Trip Blank present / cooler:	☐		☐	☑	☐	☐
2. Trip Blank listed on COC:	☐		☐	☑		
3. Samples preserved properly:	☑		☐			
4. VOCs headspace free:	☐		☐	☑		

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☐		☑
3. Sample container label / COC agree:	☐		☑

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☐		☑
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments NO TIME ON C.O.C. ON BOTTLES WE HAVE GW -74929-062211-PG-01 @10:12,GW-74929-062211-PG-02 NO TIME AND DATE ON BOTTLE, GW-74929-062211-PG03 @10:35, GW-74929-062211-PG-04 @ 10:55 [redacted]

6/24/11

Accutest Laboratories
V:713.271.4700

10165 Harwin Drive
F: 713.271.4770

Houston, TX 77036
www.accutest.com

3.1

T79583: Chain of Custody
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Sample Receipt Log

Job #: T79583 **Date / Time Received:** 6/24/2011 10:10:00 AM **Initials:** BG

Client: CRA

3.1

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T79583-1	500 ml	1	1AA	N/P	Note #2 - Preservative check not applicable.	110	3.7	-0.5	3.2
1	T79583-2	500 ml	1	1AA	N/P	Note #2 - Preservative check not applicable.	110	3.7	-0.5	3.2
1	T79583-3	500 ml	1	1AA	N/P	Note #2 - Preservative check not applicable.	110	3.7	-0.5	3.2
1	T79583-4	500 ml	1	1AA	N/P	Note #2 - Preservative check not applicable.	110	3.7	-0.5	3.2

T79583: Chain of Custody
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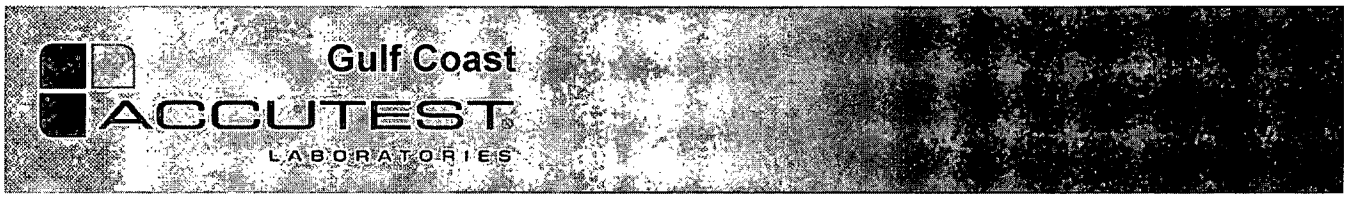

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T79583
Account: CONOCO - Conoco Phillips
Project: Faye Burdette No. 1

QC Batch ID: MP15156
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/04/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.3	12		
Antimony	5.0	1	1		
Arsenic	5.0	1.7	1		
Barium	200	.97	3.4		
Beryllium	5.0	.056	.16		
Boron	100	1.4	7.8		
Cadmium	4.0	.11	.09		
Calcium	5000	7.4	25		
Chromium	10	.23	.27		
Cobalt	50	.15	.22		
Copper	25	1.1	5.9		
Iron	100	1.1	23		
Lead	3.0	1	1.8		
Lithium	300	2	2		
Magnesium	5000	7.7	7.9		
Manganese	15	.054	1.9	0.33	<15
Molybdenum	10	.39	.2		
Nickel	40	.69	1.4		
Potassium	5000	39	45		
Selenium	5.0	1.5	.98		
Silver	10	1.2	.24		
Sodium	5000	9.2	100		
Strontium	10	.061	.4		
Thallium	10	.67	1.2		
Tin	20	.69	2.8		
Titanium	20	.29	.3		
Vanadium	50	.3	.3		
Zinc	20	.51	3.5		

Associated samples MP15156: T79583-1, T79583-2, T79583-3, T79583-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T79583
Account: CONOCO - Conoco Phillips
Project: Faye Burdette No. 1

QC Batch ID: MP15156
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/04/11 07/04/11

Metal	T79629-1F Original	DUP	RPD	QC Limits	T79629-1F Original	MS	Spikelot MPTW4	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	anr								
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	46.0	46.3	0.7	0-20	46.0	434	400	97.0	80-120
Molybdenum									
Nickel									
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP15156: T79583-1, T79583-2, T79583-3, T79583-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T79583
Account: CONOCO - Conoco Phillips
Project: Faye Burdette No. 1

QC Batch ID: MP15156
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/04/11

Metal	T79629-1F Original	MSD	Spikelot MPTW4	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	anr					
Beryllium						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper						
Iron	anr					
Lead	anr					
Lithium						
Magnesium	anr					
Manganese	46.0	432	400	96.5	0.55	20
Molybdenum						
Nickel						
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP15156: T79583-1, T79583-2, T79583-3, T79583-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T79583
Account: CONOCO - Conoco Phillips
Project: Faye Burdette No. 1

QC Batch ID: MP15156
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/04/14

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	anr			
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	395	400	98.8	80-120
Molybdenum				
Nickel				
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15156: T79583-1, T79583-2, T79583-3, T79583-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T79583
Account: CONOCO - Conoco Phillips
Project: Faye Burdette No. 1

QC Batch ID: MP15156
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/04/11

Metal	T79629-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	anr			
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	46.0	50.8	10.6*(a)	0-10
Molybdenum				
Nickel				
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15156: T79583-1, T79583-2, T79583-3, T79583-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.