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3R434

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

TETRA TECH, INC.

June 10, 2011

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

RE: ConocoPhillips Company Faye Burdette No. 1 – September 2010 Groundwater Monitoring Report
San Juan County, New Mexico

Dear Mr. von Gonten:

Enclosed please find one copy of the above-referenced document as compiled by Tetra Tech, Inc. for this San Juan County area site.

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 (1)

Cc: Brandon Powell, NMOCD (hardcopy)
Terry Lauck, ConocoPhillips Company (electronic)

SEPTEMBER 2010 QUARTERLY GROUNDWATER MONITORING REPORT

CONOCOPHILLIPS COMPANY

FAYE BURDETTE NO. 1
NATURAL GAS PRODUCTION SITE
SAN JUAN COUNTY, NEW MEXICO

API No. 30-045-09725

OCD No. TBD .

Prepared for:

ConocoPhillips

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

Prepared by:

TETRA TECH, INC.

6121 Indian School Rd. NE Suite 200
Albuquerque, NM 87110
Tetra Tech Project No. 114-690157

December 2010

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SEPTEMBER 2010 QUARTERLY GROUNDWATER MONITORING REPORT FAYE BURDETTE NO. 1, SAN JUAN COUNTY, NEW MEXICO

1.0 INTRODUCTION

This report presents the results of quarterly groundwater monitoring completed by Tetra Tech, Inc. (Tetra Tech) on September 20, 2010, at the ConocoPhillips Company Faye Burdette No. 1 natural gas well 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 ninth quarter of groundwater sampling conducted by Tetra Tech 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 production well head 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 Site History

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 indicate that benzene, toluene, ethylbenzene, and xylenes (BTEX) were below the New Mexico Water Quality Control Commission (NMWQCC) standards. Subsequently, Envirotech recommended plugging and abandoning MW-1 (Envirotech, 2007).

To complete additional investigation and sampling of the Site, Monitor Wells MW-2, MW-3, and MW-4 were installed under the supervision of Tetra Tech during January 2009 at the request of the New Mexico Oil Conservation Division (OCD). All four monitor wells have been incorporated into a quarterly monitoring program that was initiated on January 29, 2009. Site history is outlined in **Table 1**.

2.0 MONITORING SUMMARY, SAMPLING METHODOLOGY, AND RESULTS

2.1 Monitoring Summary

On September 20, 2010, groundwater elevation measurements were recorded in 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 September 2010 monitoring

event data, groundwater flow is to the northwest and is consistent with historic records at this site. The Animas River is approximately 1/3 mile from the site and flows west.

2.2 Groundwater Sampling Methodology

Monitor Wells MW-1, MW-2, MW-3, and MW-4 were sampled, representing the ninth round of consecutive quarterly groundwater monitoring at the Site. 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 Southern Petroleum Laboratories in Houston, Texas. The samples were analyzed for the presence of BTEX in accordance with Environmental Protection Agency (EPA) Method 8260B and dissolved manganese according to EPA Method 6010B. Groundwater sampling field forms are included as **Appendix A**.

2.3 Groundwater Sampling Analytical Results

Groundwater quality samples collected during the September 20, 2010 monitoring event indicate that Monitor Well MW-1 exceeds the NMWQCC standard for dissolved manganese at 0.895 milligrams per liter (mg/L). The NMWQCC standard for dissolved manganese is 0.2 mg/L. BTEX concentrations were below laboratory detection limits for all site monitor wells. **Table 3** summarizes the laboratory analytical results for the September 2010 groundwater sampling event. The corresponding laboratory analytical report is included in **Appendix B**.

3.0 CONCLUSIONS

Groundwater samples collected from MW-1 have continually exceeded NMWQCC groundwater quality standards for manganese constituents from October 2008 to September 2010. Based on the historical groundwater quality data, groundwater samples collected from MW-1, MW-2, MW-3, and MW-4 have never exceeded NMWQCC groundwater quality standards for BTEX constituents during sampling conducted from October 2008 to September 2010.

Tetra Tech recommends continued quarterly 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; or are representative of background conditions at the Site. Please contact Kelly Blanchard at 505-237-8440 or kelly.blanchard@tetratech.com if you have any questions or require additional information.

REFERENCES

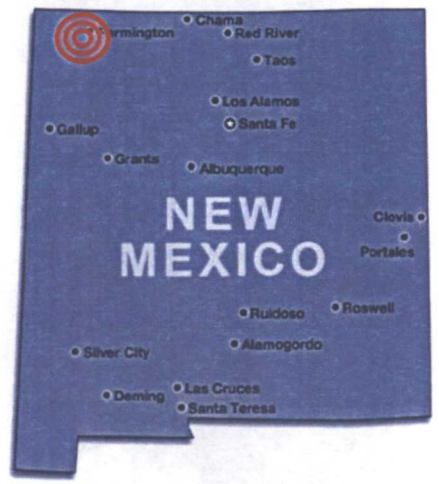
Envirotech, Inc. (2007). *Drilling and Groundwater Sampling Report at Faye Burdette No. 1 Aztec, NM.* Prepared for ConocoPhillips, dated December 12, 2007.

FIGURES

1. Site Location Map
2. Site Layout Map
3. Generalized Geologic Cross Section
4. Groundwater Elevation Contour Map – September 2010

ConcocoPhillips High Resolution Aerial Imagery 2008

FIGURE 1.
Site Location Map
CONOCOPHILLIPS COMPANY
FAYE BURDETTE NO.1 GAS
PRODUCTION WELL SITE
Sec 9, T30N, R11W
Aztec, New Mexico



Approximate ConocoPhillips Faye Burdette No.1 Site location

N

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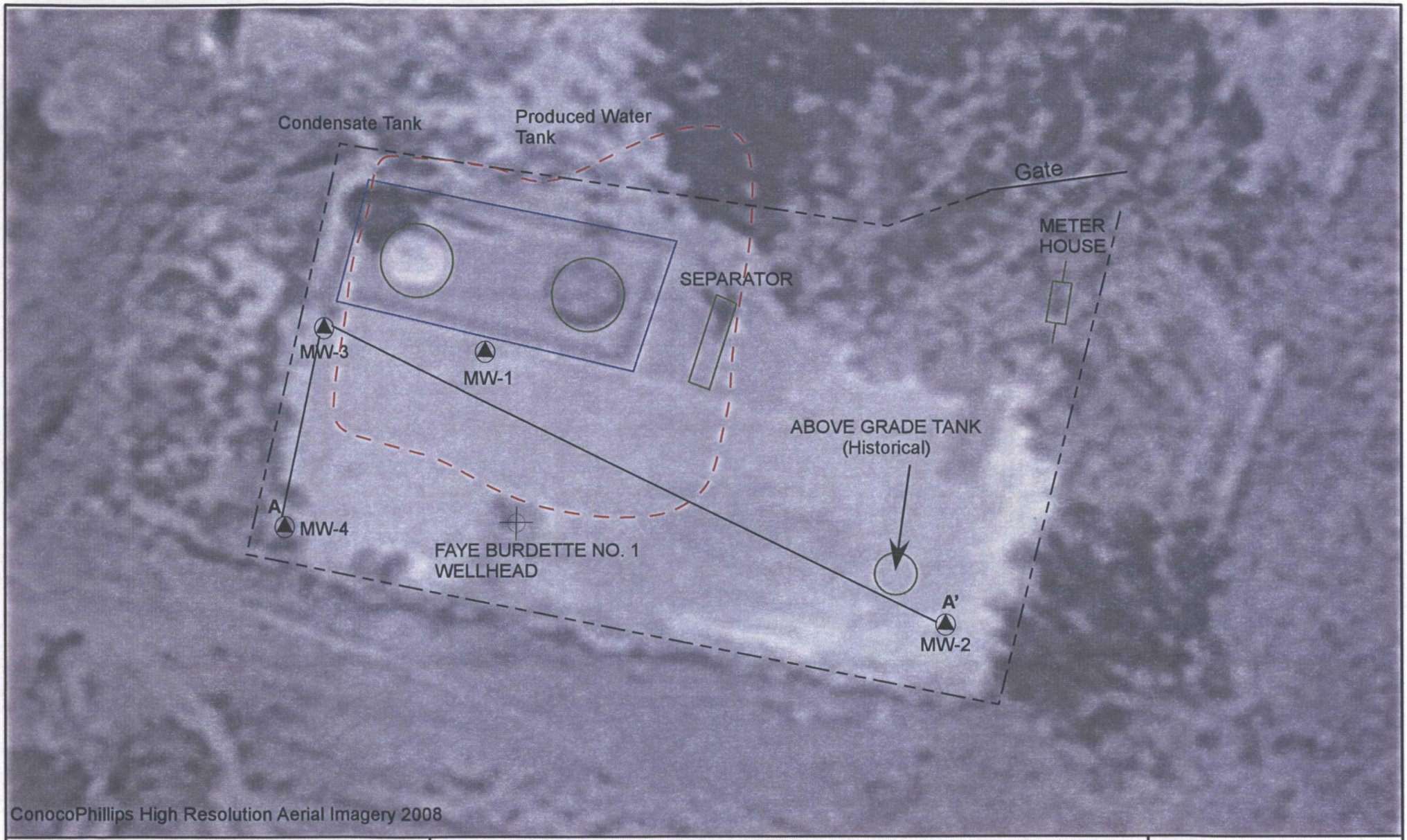

FIGURE 2.
Site Layout Map
CONOCOPHILLIPS COMPANY
FAYE BURDETTE NO.1 GAS PRODUCTION WELL SITE
Sec 9, T30N, R11W
Aztec, New Mexico

LEGEND

- MONITORING WELL
- BERM
- FENCE LINE
- EQUIPMENT
- APPROXIMATE 2007 EXCAVATION AREA

0 25 50
FEET

N

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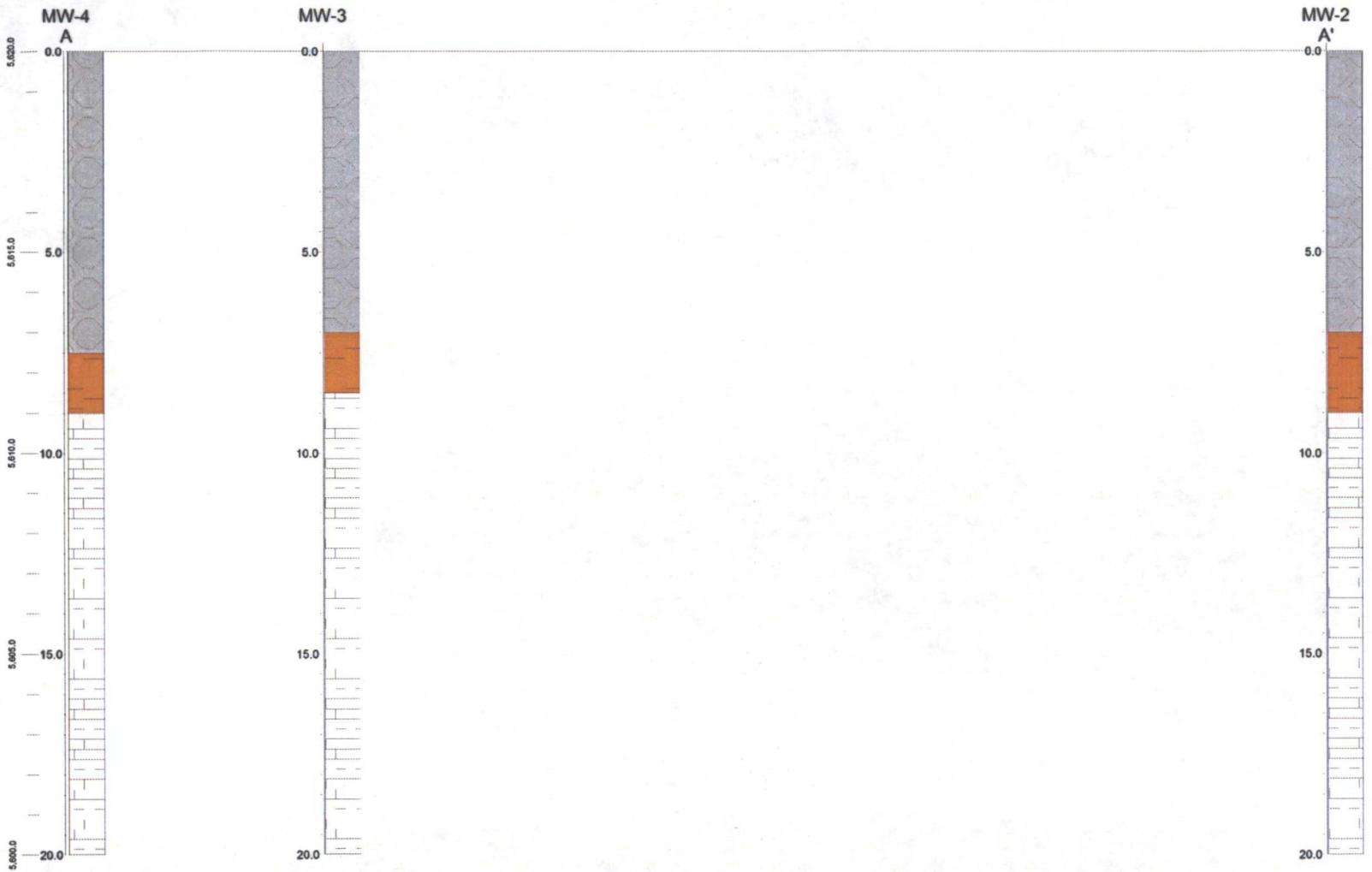

FIGURE 3:
Geologic Cross Section
CONOCOPHILLIPS COMPANY
FAYE BURDETTE NO. 1 GAS
PRODUCTION WELL SITE
Sec 9, T30N, R11W
San Juan County, New Mexico

LEGEND

- Medium grained sand
- Silty Sand
- Undefined

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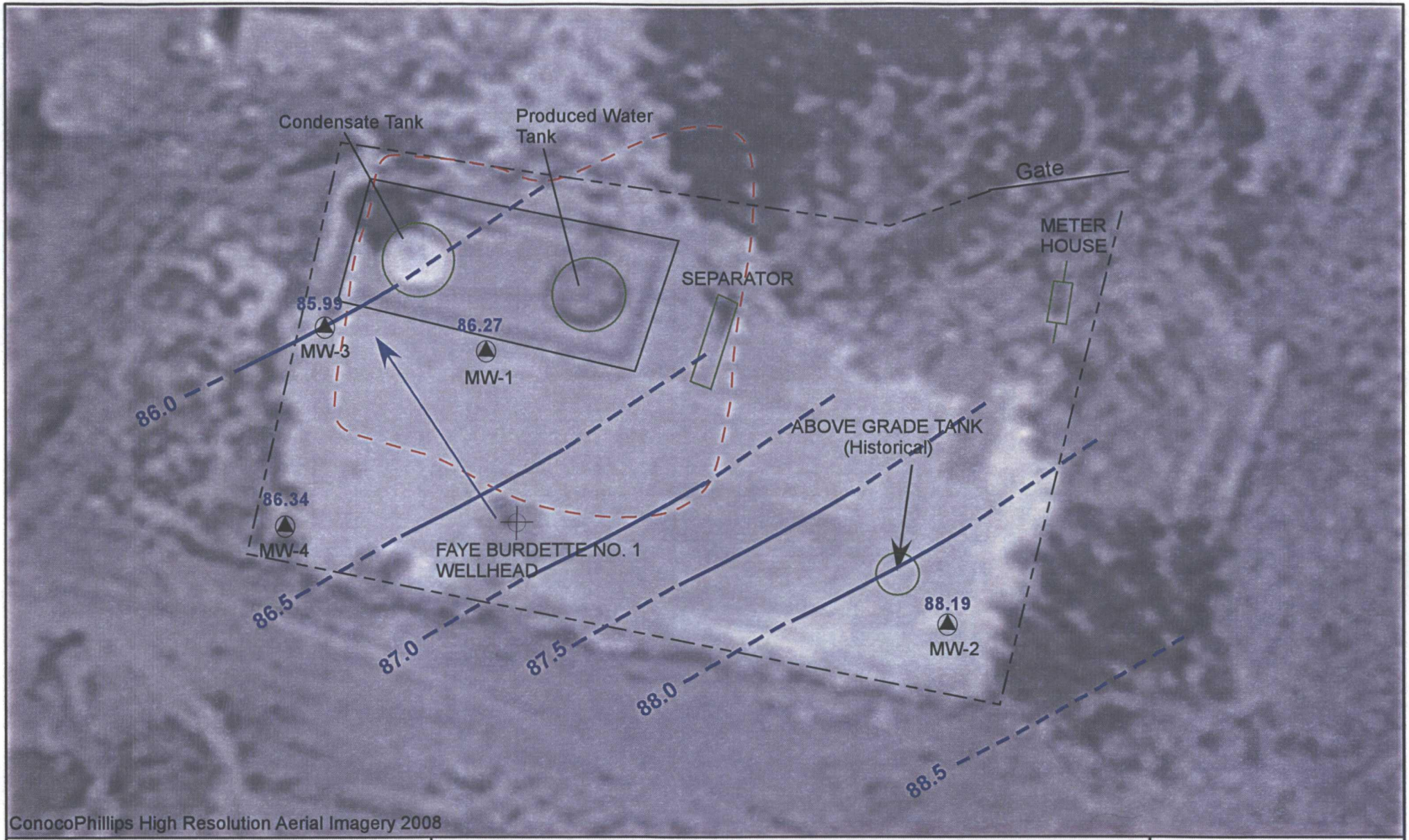

FIGURE 4:
JUNE 2010 GROUNDWATER ELEVATION CONTOUR MAP
CONOCOPHILLIPS COMPANY
FAYE BURDETTE NO. 1
Unit G - Sec 9, T30N, R11W
San Juan County, New Mexico

LEGEND

- MONITORING WELL
- BERM
- FENCE LINE
- EQUIPMENT
- APPROXIMATE 2007 EXCAVATION AREA
- GROUNDWATER ELEVATION CONTOUR (dashed where inferred)
- GROUNDWATER FLOW DIRECTION

0 25 50
FEET

N

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TABLES

Table 1. ConocoPhillips Company, Faye Burdette No. - 1Site History Timeline

DATE	ACTIVITY
29-Apr-1962	Well was spudded by Southwest Production Company.
1-Sep-1963	Ownership of well transferred to Beta Development Company.
21-Feb-1983	NMOCD inspection noted a leaky 2-inch valve on a storage tank.
15-Aug-1988	Ownership of well transferred to Mesa Operating Limited Partnership.
1-Jul-1991	Ownership of well transferred to Conoco Inc.
24-May-2007	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.
Jul-07	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.
26-Sep-07	Ground water monitoring 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, BTEX and total petroleum hydrocarbons (TPH). Results were below NMOCD regulations of 10 parts per million (ppm), 50 ppm, and 100 ppm, respectively.
	A ground water sample was collected from the temporary monitoring 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.
Nov-07	Envirotech report recommends plugging and abandonment of the temporary ground water monitoring well and a no further action determination for the Site (Envirotech, 2007).
Apr-08	Oil Conservation Division of NM Energy, Minerals, and Resources Dept. indicates additional investigation and sampling is necessary for closure consideration during a meeting with Glenn Von Gonten.
22-Oct-08	1st quarter sampling of MW-1 by Tetra Tech.
Jan-09	WDC installed additional Monitoring Wells MW-2, MW-3 and MW-4 under the supervision of Tetra Tech.
29-Jan-09	Second quarter sampling of MW-1 by Tetra Tech. Initial sampling of Monitoring Wells MW-2, MW-3, and MW-4.
31-Mar-09	Third consecutive quarter of sampling MW-1 by Tetra Tech. Second quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4.
17-Jun-09	Fourth consecutive quarter of sampling MW-1 by Tetra Tech. Third quarter of sampling Monitoring Wells MW-2, MW-3, and MW-4.
22-Sep-09	Fifth consecutive quarter of sampling MW-1 by Tetra Tech. Fourth consecutive quarter of sampling Monitoring Wells MW-2, MW-3, and MW-4. Sampling for total metals discontinued as requesting by NMOCD. Sampling for select dissolved metals based on total metals analyses begins since standards are based on these.
16-Dec-09	Sixth consecutive quarter sampling of MW-1 by Tetra Tech. Fifth consecutive quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
1-Apr-10	Seventh consecutive quarter sampling of MW-1 by Tetra Tech. Sixth consecutive quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
9-Jun-10	Eighth consecutive quarter sampling of MW-1 by Tetra Tech. Seventh consecutive quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.
20-Sep-10	Ninth consecutive quarter sampling of MW-1 by Tetra Tech. Eighth consecutive quarter sampling of Monitoring Wells MW-2, MW-3, and MW-4 for BTEX and dissolved manganese only.

Table 2. ConocoPhillips Company, Faye Burdette No. 1 - Groundwater Elevation Data Summary

Well ID	Total Depth (ft bgs)	Screen Interval (ft)	*Elevation (ft) (TOC)	Date Measured	Depth to Groundwater (ft below TOC)	Relative Groundwater Elevation
MW-1	17.52	4.8 - 14.8	97.66	10/22/2008	10.91	86.75
				1/29/2009	11.72	85.94
				3/31/2009	11.88	85.78
				6/17/2009	11.24	86.42
				9/22/2009	10.87	86.79
				12/16/2009	11.56	86.1
				4/1/2010	11.91	85.75
				6/9/2010	11.31	86.35
				9/20/2010	11.39	86.27
MW-2	19.45	5.0 - 20.0	98.54	1/29/2009	10.91	87.63
				3/31/2009	11.12	87.42
				6/17/2009	10.48	88.06
				9/22/2009	10.76	87.78
				12/16/2009	10.61	87.93
				4/1/2010	11.2	87.34
				6/9/2010	10.35	88.19
				9/20/2010	10.35	88.19
MW-3	22.96	5.0 - 20.0	97.16	1/29/2009	11.44	85.72
				3/31/2009	11.62	85.54
				6/17/2009	10.97	86.19
				9/22/2009	10.57	86.59
				12/16/2009	11.32	85.84
				4/1/2010	11.66	85.50
				6/9/2010	11.1	86.06
				9/20/2010	11.17	85.99
MW-4	22.28	5.0 - 20.0	97.06	1/29/2009	11.02	86.04
				3/31/2009	11.18	85.88
				6/17/2009	10.59	86.47
				9/22/2009	10.16	86.90
				12/16/2009	10.87	86.19
				4/1/2010	11.04	86.02
				6/9/2010	10.65	86.41
				9/20/2010	10.72	86.34

ft = Feet

TOC = Top of casing

bgs = below ground surface

* Elevation relative to an arbitrary point set at 100 feet

Table 3. ConocoPhillips Company, Faye Burdette No. 1 - Groundwater Laboratory Analytical Results

Well ID	Date	Aluminum (mg/L)	Iron (mg/L)	Manganese (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW-1	10/22/2008	NA	3.74*	2.09*	< 5	< 5	< 5	< 5
	1/29/2009	2.14*	2.77*	1.41*	< 5	< 5	< 5	< 5
	3/31/2009	3.64*	4.83*	1.24*	< 5	< 5	< 5	< 5
	6/17/2009	2.5*	5.58*	2.47*	< 5	< 5	< 5	< 5
	9/22/2009	0.443	0.445	**1.44**	<1	<1	<1	<1
	12/16/2009	NA	NA	**0.732**	<1	<1	<1	<1
	4/1/2010	NA	NA	**1.71**	<1	<1	<1	<1
	6/9/2010	NA	NA	**1.61**	<1	<1	<1	<1
	9/20/2010	NA	NA	**0.895**	<1	<1	<1	<1
MW-1 Duplicate	1/29/2009	NA	NA	NA	< 5	< 5	< 5	< 5
	3/31/2009	NA	NA	NA	< 5	< 5	< 5	< 5
	6/17/2009	2.83	6.13*	2.52*	< 5	< 5	< 5	< 5
	9/22/2009	NA	NA	NA	<1	<1	<1	<1
	12/16/2009	NA	NA	NA	<1	<1	<1	<1
	4/1/2010	NA	NA	NA	<1	<1	<1	<1
	6/9/2010	NA	NA	NA	<1	<1	<1	<1
	9/20/2010	NA	NA	NA	<1	<1	<1	<1
MW-2	1/29/2009	4.15*	3.15*	1.79*	< 5	< 5	< 5	< 5
	3/31/2009	1.17*	1.02*	0.326*	< 5	< 5	< 5	< 5
	6/17/2009	3.4*	2.8*	1.37*	< 5	< 5	< 5	< 5
	9/22/2009	<0.1	<0.02	0.0264	<1	<1	<1	<1
	12/16/2009	NA	NA	0.0654	<1	<1	<1	<1
	4/1/2010	NA	NA	0.16	<1	<1	<1	<1
	6/9/2010	NA	NA	0.0323	<1	<1	<1	<1
	9/20/2010	NA	NA	0.0455	<1	<1	<1	<1
MW-3	1/29/2009	1.82*	2.24*	0.374*	< 5	< 5	< 5	< 5
	3/31/2009	1.64*	1.91*	0.271*	< 5	< 5	< 5	< 5
	6/17/2009	1.68*	2.14*	0.628*	< 5	< 5	< 5	< 5
	9/22/2009	<0.1	0.0291	0.0201	<1	<1	<1	<1
	12/16/2009	NA	NA	0.0607	<1	<1	<1	<1
	4/1/2010	NA	NA	0.0232	<1	<1	<1	<1
	6/9/2010	NA	NA	< 0.005	<1	<1	<1	<1
	9/20/2010	NA	NA	< 0.005	<1	<1	<1	<1
MW-4	1/29/2009	6.92*	3.17*	4.15*	< 5	< 5	< 5	< 5
	3/31/2009	4.21*	3.22*	1.45*	< 5	< 5	< 5	< 5
	6/17/2009	2.43*	2.05*	0.854*	< 5	< 5	< 5	< 5
	9/22/2009	<0.1	0.108	**0.476**	<1	<1	<1	<1
	12/16/2009	NA	NA	0.0149	<1	<1	<1	<1
	4/1/2010	NA	NA	< 0.005	<1	<1	<1	<1
	6/9/2010	NA	NA	< 0.005	<1	<1	<1	<1
	9/20/2010	NA	NA	0.0152	<1	<1	<1	<1
Method		*SW6010B*	*SW6010B*	*SW6010B*	*8260B*	*8260B*	*8260B*	*8260B*
NMWQCC Groundwater Quality Standard		**5.0**	**1.0**	**0.2**	**10**	**750**	**750**	**620**

Notes:
MW = monitoring well
NMWQCC = New Mexico Water Quality Control Commission
Constituents in **BOLD** exceed NMWQCC groundwater quality standards
mg/L = milligrams per liter
µg/L = micrograms per liter
NA = not analyzed
<5 = result below laboratory detection limit
Total Metals analysis run for all samples through June 2009; September 2009 dissolved metals analysis run in order to compare to standards
* = total metals analysis result (NMWQCC standards do not apply)

APPENDIX A

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name Faye Burdette No. 1 Page 1 of 4

ject No.

Site Location Aztec, NM

Site/Well No. MW-1 Coded/ Replicate No. 1325 Date 9-20-10

Weather Cloudy, hot 80° Time Sampling Began 1310 Time Sampling Completed 1315

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 17.52 Water-Level Elevation

Held Depth to Water Below MP 11.39 Diameter of Casing 2"

Wet Water Column in Well 6.09 Gallons Pumped/Bailed Prior to Sampling .3

Gallons per Foot 0.16

Gallons in Well 0.974 Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer X3 = 2.923

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
~~1310~~	~~19.22~~	~~7.19~~	~~1319~~	~~.857~~	~~9.09~~	~~90.2~~	~~-1.7~~	~~2~~
1311	18.77	7.15	1325	.861	3.35	35.3	-8.8	2.25
1312	18.49	7.12	1322	.859	3.82	41.7	-15.0	2.5
1313	18.29	7.11	1320	.857	3.89	41.3	-17.1	2.75
1314	18.22	7.09	1319	.858	4.35	46.8	-18.9	3

Sampling Equipment Purge Pump/Bailer

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

Remarks water is light brown, No odor or sheen detected

Sampling Personnel Christine Mathews & Cassie Braun

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 Faye Burdette No. 1 Page 2 of 4

Project No.

Site Location Aztec, NM

Site/Well No. MW-2 Coded/ Replicate No. Date 9-20-10

Weather Cloudy Sunny, hot 80° Time Sampling Began 1235 Time Sampling Completed 1245

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 19.45 Water-Level Elevation

Held Depth to Water Below MP 10.35 Diameter of Casing 2"

Wet Water Column in Well 9.10 Gallons Pumped/Bailed Prior to Sampling 4.5

Gallons per Foot 0.16

Gallons in Well 1.456 Sampling Pump Intake (feet below land

Purging Equipment Purge pump / Bailer x3 = 4.368

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1240	16.16	7.25	1315	.854	13.	—	2.7	3.75
1241	16.04	6.30	1333	0.868	5.59	56.1	20.2	4.00
1242	16.04	7.02	1300	.844	4.65	46.8	27.2	4.25
1243	16.07	7.01	1290	.839	4.11	41.5	30.1	4.5

Sampling Equipment Purge Pump/Bailer

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

Remarks No odor, No sheen, H_2O is light brown

Sampling Personnel Christine Matteus & Cassie Brown

Well Casing Volumes

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

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name Faye Burdette No. 1 Page 3 of 4

ject No.

Site Location Aztec, NM

Site/Well No. MW-3 Coded/ Replicate No. Date 9-20-10

Weather cloudy, hot 80° Time Sampling Began 1316 Time Sampling Completed 1338

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 22.98 Water-Level Elevation

Held Depth to Water Below MP 11.17 Diameter of Casing 2"

Wet Water Column in Well 11.74 Gallons Pumped/Bailed Prior to Sampling 5.75

Gallons per Foot 0.16

Gallons in Well 1.878 Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer X3 = 5.64

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1319	16.05	7.23	1350	.877	3.46	34.3	27.9	5.0
1322	16.13	7.19	1346	.875	1.79	18.2	34.8	5.5
1324	15.88	7.18	1355	.881	1.63	16.5	41.3	5.75

Sampling Equipment Purge Pump/Bailer

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

Remarks Water is light brown, no odor or sheen detected

Sampling Personnel Christine Mathews & Cassie Brown

Well Casing Volumes

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

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name: Faye Burdette No. 1 — Page 4 of 4

ject No.:

Site Location: Aztec, NM

Site/Well No.: MW-4 — Coded/ Replicate No.: — Date: 9-20-10

Weather: Cloudy, hot 80° — Time Sampling Began: 1235 — Time Sampling Completed: 1300

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: 22.26 16 — Water-Level Elevation:

Held: — Depth to Water Below MP: 10.72 — Diameter of Casing: 2"

Wet: — Water Column in Well: 11.43 — Gallons Pumped/Bailed Prior to Sampling: 5.5 gallons

Gallons per Foot: 0.16

Gallons in Well: 1.829 — Sampling Pump Intake Setting (feet below land surface):

Purging Equipment: Purge pump / (Bailer) — x3 = 5.49

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1253	16.93	7.26	1368	.890	4.01	39.5	74.1	4.75
1254	16.74	7.18	1379	.897	2.43	24.8	73.6	5.0
1255	16.75	7.18	1367	.888	2.59	26.9	70.7	5.25
1256	16.98	7.18	1352	.879	2.56	26.7	69.3	5.5

Sampling Equipment: Purge Pump/Bailer

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

Remarks: H2O is light brown with fines, no odor or sheen observed

Sampling Personnel: Christine Mathews & Cassie Brown

Well Casing Volumes

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

APPENDIX B

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

Certificate of Analysis

October 1, 2010

Workorder: H10090501

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

Project: COP - Faye Burdette No. 1

Project Number: COP - Faye Burdette No. 1

Site: COP - Faye Burdette No. 1

PO Number: ENFOS

NELAC Cert. No.: T104704205-09-3

This Report Contains A Total Of 23 Pages

Excluding Any Attachments

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Certificate of Analysis

October 1, 2010

Workorder: H10090501

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Site: COP - Faye Burdette No. 1

PO Number: ENFOS

NELAC Cert. No.: T104704205-09-3

I. SAMPLE RECEIPT:

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

II: ANALYSES AND EXCEPTIONS:

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

There were no exceptions noted.

III. GENERAL REPORTING COMMENTS:

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

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

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

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

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

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Certificate of Analysis

October 1, 2010

Workorder: H10090501

Kelly Blanchard
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Project: COP - Faye Burdette No. 1

Project Number: COP - Faye Burdette No. 1

Site: COP - Faye Burdette No. 1

PO Number: ENFOS

NELAC Cert. No.: T104704205-09-3

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

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

Erica Cardenas, Senior Project Manager

Enclosures

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SAMPLE SUMMARY

Workorder: H10090501 : COP - Faye Burdette No. 1 | Project Number: COP - Faye Burdette No. 1

Lab ID	Sample ID	Matrix	COC ID	Date/Time Collected	Date/Time Received
H10090501001	MW-2	Water		9/20/2010 12:45	9/21/2010 09:25
H10090501002	MW-3	Water		9/20/2010 13:30	9/21/2010 09:25
H10090501003	MW-1	Water		9/20/2010 13:15	9/21/2010 09:25
H10090501004	MW-4	Water		9/20/2010 13:00	9/21/2010 09:25
H10090501005	Duplicate	Water		9/20/2010 13:25	9/21/2010 09:25
H10090501006	MW-2	Water		9/20/2010 12:45	9/21/2010 09:25
H10090501007	MW-3	Water		9/20/2010 13:30	9/21/2010 09:25
H10090501008	MW-1	Water		9/20/2010 13:15	9/21/2010 09:25
H10090501009	MW-4	Water		9/20/2010 13:00	9/21/2010 09:25
H10090501010	Trip Blank	Water		9/20/2010 14:05	9/21/2010 09:25

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ANALYTICAL RESULTS

Workorder: H10090501 : COP - Faye Burdette No. 1 | Project Number: COP - Faye Burdette No. 1

Lab ID: **H10090501001** | Date/Time Received: 9/21/2010 09:25 | Matrix: Water

Sample ID: **MW-2** | Date/Time Collected: 9/20/2010 12:45

VOLATILES

Analysis Desc: SW-846 8260B (GCVMS Analysis) | Analytical Batches: SW-846 5030 Batch: 1561 SW-846 8260B (GCVMS Analysis) on 09/26/2010 16:54 by DGR

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.17	1			1561
Ethylbenzene	ND		1.0	0.097	1			1561
Toluene	ND		1.0	0.12	1			1561
m,p-Xylene	ND		1.0	0.30	1			1561
o-Xylene	ND		1.0	0.11	1			1561
Xylenes, Total	ND		1.0	0.11	1			1561
4-Bromofluorobenzene (S)	101 %		70-130		1			1561
1,2-Dichloroethane-d4 (S)	99.5 %		71-140		1			1561
Toluene-d8 (S)	105 %		61-121		1			1561
Preservation pH	<2				1			1561

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ANALYTICAL RESULTS

Workorder: H10090501 : COP - Faye Burdette No. 1 | Project Number: COP - Faye Burdette No. 1

Lab ID: **H10090501002** | Date/Time Received: 9/21/2010 09:25 | Matrix: Water

Sample ID: **MW-3** | Date/Time Collected: 9/20/2010 13:30

VOLATILES

Analysis Desc: SW-846 8260B (GCVMS Analysis) | SW-846 5030Analytical Batches:

Batch: 1561 SW-846 8260B (GCVMS Analysis) on 09/26/2010 17:16 by DGR

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.17	1			1561
Ethylbenzene	ND		1.0	0.097	1			1561
Toluene	ND		1.0	0.12	1			1561
m,p-Xylene	ND		1.0	0.30	1			1561
o-Xylene	ND		1.0	0.11	1			1561
Xylenes, Total	ND		1.0	0.11	1			1561
4-Bromofluorobenzene (S)	103 %		70-130		1			1561
1,2-Dichloroethane-d4 (S)	105 %		71-140		1			1561
Toluene-d8 (S)	98.9 %		61-121		1			1561
Preservation pH	<2				1			1561

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ANALYTICAL RESULTS

Workorder: H10090501 : COP - Faye Burdette No. 1 Project Number: COP - Faye Burdette No. 1

Lab ID: **H10090501003** Date/Time Received: 9/21/2010 09:25 Matrix: Water

Sample ID: **MW-1** Date/Time Collected: 9/20/2010 13:15

VOLATILES

Analysis Desc: SW-846 8260B (GCVMS Analysis) SW-846 5030Analytical Batches:
Batch: 1561 SW-846 8260B (GCVMS Analysis) on 09/26/2010 17:38 by DGR

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.17	1			1561
Ethylbenzene	ND		1.0	0.097	1			1561
Toluene	ND		1.0	0.12	1			1561
m,p-Xylene	ND		1.0	0.30	1			1561
o-Xylene	ND		1.0	0.11	1			1561
Xylenes, Total	ND		1.0	0.11	1			1561
4-Bromofluorobenzene (S)	102 %		70-130		1			1561
1,2-Dichloroethane-d4 (S)	103 %		71-140		1			1561
Toluene-d8 (S)	99.4 %		61-121		1			1561
Preservation pH	<2				1			1561

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ANALYTICAL RESULTS

Workorder: H10090501 : COP - Faye Burdette No. 1 | Project Number: COP - Faye Burdette No. 1

Lab ID: **H10090501004** | Date/Time Received: 9/21/2010 09:25 | Matrix: Water

Sample ID: **MW-4** | Date/Time Collected: 9/20/2010 13:00

VOLATILES

Analysis Desc: SW-846 8260B (GCVMS Analysis)	SW-846 5030Analytical Batches Batch: 1561 SW-846 8260B (GCVMS Analysis) on 09/26/2010 18:00 by DGR						
	Results						Batch Information
Parameters	ug/l	Qual	Report Limit	MDL	DF	RegLmt	Prep Analysis
Benzene	ND		1.0	0.17	1		1561
Ethylbenzene	ND		1.0	0.097	1		1561
Toluene	ND		1.0	0.12	1		1561
m,p-Xylene	ND		1.0	0.30	1		1561
o-Xylene	ND		1.0	0.11	1		1561
Xylenes, Total	ND		1.0	0.11	1		1561
4-Bromofluorobenzene (S)	104 %		70-130		1		1561
1,2-Dichloroethane-d4 (S)	104 %		71-140		1		1561
Toluene-d8 (S)	96.8 %		61-121		1		1561
Preservation pH	<2				1		1561

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ANALYTICAL RESULTS

Workorder: H10090501 : COP - Faye Burdette No. 1 Project Number: COP - Faye Burdette No. 1

Lab ID: **H10090501005** Date/Time Received: 9/21/2010 09:25 Matrix: Water

Sample ID: **Duplicate** Date/Time Collected: 9/20/2010 13:25

VOLATILES

Analysis Desc: SW-846 8260B (GCVMS Analysis) SW-846 5030Analytical Batches:
Batch: 1561 SW-846 8260B (GCVMS Analysis) on 09/26/2010 18:22 by DGR

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.17	1			1561
Ethylbenzene	ND		1.0	0.097	1			1561
Toluene	ND		1.0	0.12	1			1561
m,p-Xylene	ND		1.0	0.30	1			1561
o-Xylene	ND		1.0	0.11	1			1561
Xylenes, Total	ND		1.0	0.11	1			1561
4-Bromofluorobenzene (S)	103 %		70-130		1			1561
1,2-Dichloroethane-d4 (S)	102 %		71-140		1			1561
Toluene-d8 (S)	96 %		61-121		1			1561
Preservation pH	<2				1			1561

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ANALYTICAL RESULTS

Workorder: H10090501 : COP - Faye Burdette No. 1 | Project Number: COP - Faye Burdette No. 1

Lab ID: **H10090501006** | Date/Time Received: 9/21/2010 09:25 | Matrix: Water

Sample ID: **MW-2** | Date/Time Collected: 9/20/2010 12:45

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B | Preparation Batches: Batch: 2080 SW-846 3010A on 09/21/2010 16:30 by R_V | Analytical Batches: Batch: 1635 SW-846 6010B on 09/27/2010 16:06 by EBG

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Manganese	0.0455		0.00500	0.000300	1		2080	1635

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ANALYTICAL RESULTS

Workorder: H10090501 : COP - Faye Burdette No. 1 | Project Number: COP - Faye Burdette No. 1

Lab ID: **H10090501007** | Date/Time Received: 9/21/2010 09:25 | Matrix: Water

Sample ID: **MW-3** | Date/Time Collected: 9/20/2010 13:30

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B

Preparation Batches:

Batch: 2080 SW-846 3010A on 09/21/2010 16:30 by R_V

Analytical Batches:

Batch: 1635 SW-846 6010B on 09/27/2010 17:00 by EBG

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Manganese	ND		0.00500	0.000300	1		2080	1635

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ANALYTICAL RESULTS

Workorder: H10090501 : COP - Faye Burdette No. 1 | Project Number: COP - Faye Burdette No. 1

Lab ID: **H10090501008** | Date/Time Received: 9/21/2010 09:25 | Matrix: Water

Sample ID: **MW-1** | Date/Time Collected: 9/20/2010 13:15

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B

Preparation Batches:
Batch: 2080 SW-846 3010A on 09/21/2010 16:30 by R_V

Analytical Batches:
Batch: 1635 SW-846 6010B on 09/27/2010 17:06 by EBG

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Manganese	0.895		0.00500	0.000300	1		2080	1635

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ANALYTICAL RESULTS

Workorder: H10090501 : COP - Faye Burdette No. 1 Project Number: COP - Faye Burdette No. 1

Lab ID: **H10090501009** Date/Time Received: 9/21/2010 09:25 Matrix: Water

Sample ID: **MW-4** Date/Time Collected: 9/20/2010 13:00

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B

Preparation Batches:
Batch: 2080 SW-846 3010A on 09/21/2010 16:30 by R_V

Analytical Batches:
Batch: 1635 SW-846 6010B on 09/27/2010 17:12 by EBG

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Manganese	0.0152		0.00500	0.000300	1		2080	1635

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ANALYTICAL RESULTS

Workorder: H10090501 : COP - Faye Burdette No. 1 Project Number: COP - Faye Burdette No. 1

Lab ID: **H10090501010** Date/Time Received: 9/21/2010 09:25 Matrix: Water

Sample ID: **Trip Blank** Date/Time Collected: 9/20/2010 14:05

VOLATILES

Analysis Desc: SW-846 8260B (GCVMS Analysis)	SW-846 5030Analytical Batches: Batch: 1559 SW-846 8260B (GCVMS Analysis) on 09/26/2010 00:13 by DLY						
	Results						Batch Information
Parameters	ug/l	Qual	Report Limit	MDL	DF	RegLmt	Prep Analysis
Benzene	ND		1.0	0.17	1		1559
Ethylbenzene	ND		1.0	0.097	1		1559
Toluene	ND		1.0	0.12	1		1559
m,p-Xylene	ND		1.0	0.30	1		1559
o-Xylene	ND		1.0	0.11	1		1559
Xylenes, Total	ND		1.0	0.11	1		1559
4-Bromofluorobenzene (S)	104 %		70-130		1		1559
1,2-Dichloroethane-d4 (S)	98.6 %		71-140		1		1559
Toluene-d8 (S)	99.3 %		61-121		1		1559
Preservation pH	<2				1		1559

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QUALITY CONTROL DATA

Workorder: H10090501 : COP - Faye Burdette No. 1 Project Number: COP - Faye Burdette No. 1

QC Batch: GVMS/1558 Analysis Method: SW-846 8260B (GCVMS Analysis)

QC Batch Method: SW-846 5030 Preparation: 09/25/2010 00:00 by MSV

Associated Lab Samples: H10090438001 H10090438002 H10090438003 H10090438004 H10090438007 H10090501010

METHOD BLANK: 71735

Analysis Date/Time Analyst: 09/25/2010 23:51 DLY

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Benzene	ug/l	ND		1.0
Ethylbenzene	ug/l	ND		1.0
Toluene	ug/l	ND		1.0
m,p-Xylene	ug/l	ND		1.0
o-Xylene	ug/l	ND		1.0
Xylenes, Total	ug/l	ND		1.0
4-Bromofluorobenzene (S)	%	104		70-130
1,2-Dichloroethane-d4 (S)	%	98.8		71-140
Toluene-d8 (S)	%	101		61-121

LABORATORY CONTROL SAMPLE: 71736

Analysis Date/Time Analyst: 09/25/2010 22:45 DLY

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Benzene	ug/l	20	21.1	106	70-130
Ethylbenzene	ug/l	20	23.2	116	70-130
Toluene	ug/l	20	21.5	108	73-130
m,p-Xylene	ug/l	40	46.1	115	70-130
o-Xylene	ug/l	20	23.8	119	70-130
Xylenes, Total	ug/l	60	69.91	117	70-130
4-Bromofluorobenzene (S)	%			103	70-130
1,2-Dichloroethane-d4 (S)	%			97.1	71-140
Toluene-d8 (S)	%			104	61-121

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 71737 71738 Original: H10090438002

MS Analysis Date/Time Analyst: 09/26/2010 15:01 DLY

MSD Analysis Date/Time Analyst: 09/26/2010 15:23 DLY

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Benzene	ug/l	ND	20	22.0	20.2	110	101	67-202	8.6	20
Ethylbenzene	ug/l	ND	20	23.6	21.7	118	108	49-165	8.5	20
Toluene	ug/l	ND	20	20.5	19.0	102	94.9	48-162	7.6	20
m,p-Xylene	ug/l	ND	40	47.0	42.8	117	107	44-167	9.3	20

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

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QUALITY CONTROL DATA

Workorder: H10090501 : COP - Faye Burdette No. 1 Project Number: COP - Faye Burdette No. 1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 71737 71738 Original: H10090438002

MS Analysis Date/Time Analyst: 09/26/2010 15:01 DLY

MSD Analysis Date/Time Analyst: 09/26/2010 15:23 DLY

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
o-Xylene	ug/l	ND	20	24.2	22.3	121	112	54-158	8.0	20
Xylenes, Total	ug/l	ND	60	71.15	65.12	119	109	44-167	8.9	20
4-Bromofluorobenzene (S)	%	102				104	103	70-130		
1,2-Dichloroethane-d4 (S)	%	98.9				98.7	99.4	71-140		
Toluene-d8 (S)	%	105				97.6	99.5	61-121		

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

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QUALITY CONTROL DATA

Workorder: H10090501 : COP - Faye Burdette No. 1 Project Number: COP - Faye Burdette No. 1

QC Batch: GVMS/1560 Analysis Method: SW-846 8260B (GCVMS Analysis)

QC Batch Method: SW-846 5030 Preparation: 09/26/2010 00:00 by DGR

Associated Lab Samples: H10090364019 H10090424013 H10090424014 H10090424019 H10090424021 H10090424022 H10090438005 H10090438006 H10090501001 H10090501002 H10090501003 H10090501004 H10090501005 H10090528003 H10090528004 H10090528005 H10090528006 H10090528007 H10090528008 H10090528009

METHOD BLANK: 71920

Analysis Date/Time Analyst: 09/26/2010 11:39 DGR

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Benzene	ug/l	ND		1.0
Ethylbenzene	ug/l	ND		1.0
Toluene	ug/l	ND		1.0
m,p-Xylene	ug/l	ND		1.0
o-Xylene	ug/l	ND		1.0
Xylenes, Total	ug/l	ND		1.0
4-Bromofluorobenzene (S)	%	102		70-130
1,2-Dichloroethane-d4 (S)	%	97.4		71-140
Toluene-d8 (S)	%	101		61-121

LABORATORY CONTROL SAMPLE: 71921

Analysis Date/Time Analyst: 09/26/2010 10:32 DGR

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Benzene	ug/l	20	21.1	106	70-130
Ethylbenzene	ug/l	20	23.1	115	70-130
Toluene	ug/l	20	21.6	108	73-130
m,p-Xylene	ug/l	40	46.2	115	70-130
o-Xylene	ug/l	20	23.6	118	70-130
Xylenes, Total	ug/l	60	69.8	116	70-130
4-Bromofluorobenzene (S)	%			104	70-130
1,2-Dichloroethane-d4 (S)	%			98.3	71-140
Toluene-d8 (S)	%			104	61-121

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 71922 71923 Original: H10090501001

MS Analysis Date/Time Analyst: 09/26/2010 15:48 DGR

MSD Analysis Date/Time Analyst: 09/26/2010 16:10 DGR

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Benzene	ug/l	ND	20	21.4	20.3	107	101	67-202	5.5	20

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

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QUALITY CONTROL DATA

Workorder: H10090501 : COP - Faye Burdette No. 1 Project Number: COP - Faye Burdette No. 1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 71922 71923 Original: H10090501001

MS Analysis Date/Time Analyst: 09/26/2010 15:48 DGR

MSD Analysis Date/Time Analyst: 09/26/2010 16:10 DGR

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Ethylbenzene	ug/l	ND	20	23.5	21.4	118	107	49-165	9.7	20
Toluene	ug/l	ND	20	21.7	18.9	109	94.7	48-162	13.8	20
m,p-Xylene	ug/l	ND	40	47.1	42.5	118	106	44-167	10.2	20
o-Xylene	ug/l	ND	20	23.9	22.0	119	110	54-158	8.3	20
Xylenes, Total	ug/l	ND	60	70.95	64.48	118	107	44-167	9.6	20
4-Bromofluorobenzene (S)	%	101				104	105	70-130		
1,2-Dichloroethane-d4 (S)	%	99.5				103	102	71-140		
Toluene-d8 (S)	%	105				105	98.0	61-121		

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

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QUALITY CONTROL DATA

Workorder: H10090501 : COP - Faye Burdette No. 1 Project Number: COP - Faye Burdette No. 1

QC Batch: DIGM/2080 Analysis Method: SW-846 6010B

QC Batch Method: SW-846 3010A Preparation: 09/21/2010 16:30 by R_V

Associated Lab Samples: H10090501006 H10090501007 H10090501008 H10090501009

METHOD BLANK: 70624

Analysis Date/Time Analyst: 09/27/2010 15:54 EBG

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Manganese	mg/l	ND		0.00500

LABORATORY CONTROL SAMPLE: 70625

Analysis Date/Time Analyst: 09/27/2010 16:00 EBG

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Manganese	mg/l	0.10	0.1048	105	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 70626 70627 Original: H10090501006

MS Analysis Date/Time Analyst: 09/27/2010 16:12 EBG

MSD Analysis Date/Time Analyst: 09/27/2010 16:18 EBG

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Manganese	mg/l	0.0455	0.10	0.1453	0.1499	99.8	104	75-125	3.1	20

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

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Legend

(S) - Indicates analyte is a surrogate

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

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: H10090501 : COP - Faye Burdette No. 1 | Project Number: COP - Faye Burdette No. 1

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
H10090501006	**MW-2**	SW-846 3010A	DIGM/2080	SW-846 6010B	ICP/1635
H10090501007	**MW-3**	SW-846 3010A	DIGM/2080	SW-846 6010B	ICP/1635
H10090501008	**MW-1**	SW-846 3010A	DIGM/2080	SW-846 6010B	ICP/1635
H10090501009	**MW-4**	SW-846 3010A	DIGM/2080	SW-846 6010B	ICP/1635
H10090501010	**Trip Blank**	SW-846 5030	GVMS/1558	SW-846 8260B (GCVMS Analysis)	GVMS/1559
H10090501001	**MW-2**	SW-846 5030	GVMS/1560	SW-846 8260B (GCVMS Analysis)	GVMS/1561
H10090501002	**MW-3**	SW-846 5030	GVMS/1560	SW-846 8260B (GCVMS Analysis)	GVMS/1561
H10090501003	**MW-1**	SW-846 5030	GVMS/1560	SW-846 8260B (GCVMS Analysis)	GVMS/1561
H10090501004	**MW-4**	SW-846 5030	GVMS/1560	SW-846 8260B (GCVMS Analysis)	GVMS/1561
H10090501005	**Duplicate**	SW-846 5030	GVMS/1560	SW-846 8260B (GCVMS Analysis)	GVMS/1561

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Sample Receipt Checklist

WorkOrder:	H10090501	Received By	BAF
Date and Time	09/21/2010 09:25	Carrier Name:	FEDEXS
Temperature:	3.5°C	Chilled By:	Water Ice

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

*VOA Preservation Checked After Sample Analysis

SPL Representative:
Contact Date & Time:
Client Name Contacted:
Client Instructions:

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

H10090501

Chain of Custody Record

Client: Tetra Tech/ Conoco Phillips

SPL Workorder Number:

Attention: Kelly Blanchard/Tetra Tech

Phone: 505-237-8440 | Email: kelly.blanchard@tetratech.com

Address: 6121 Indian School Road, NE Ste. 200

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

Project Name: Faye Burdette #1

P.O. Number:

Sampled By: Christine Mathews

Signature: Christine Mathews

REQUESTED ANALYSIS

Sample ID	Collected: Date	Time	Sample Type: Comp	Grab	Matrix: Water	Soil	Bottle Type	Preservative Type	# of Containers	BTEX	Dissolved Mn
MW-2	9.20.10	1245		X	X		1	3	3	X	
MW-3	9.20.10	1330		X	X		1	3	3	X	
MW-1	9.20.10	1315		X	X		1	3	3	X	
MW-4	9.20.10	1300		X	X		1	3	3	X	
Duplicate	9.20.10	1325		X	X		1	3	3	X	
MW-2	9.20.10	1245		X	X		6	1	1		X
MW-3	9.20.10	1330		X	X		6	1	1		X
MW-1	9.20.10	1315		X	X		6	1	1		X
MW-4	9.20.10	1300		X	X		6	1	1		X
Trip Blank	9.20.10	1405			X		1	3	2	X	

Turnaround Time Requirements

24 hr ( ) 48 hr ( )

72 hr ( ) 5 wday ( )

10 wday Standard ( )

Remarks: Please filter & preserve metals container before analysis

Intact? Y or N

Temperature:

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

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

	Relinquished by Sampler:	Date	Time	Received by:
	Christine Mathews	9/20/10	1430	
	Relinquished by:	Date	Time	Received by:
	Relinquished by:	Date	Time	Received by SPL, Inc.
		9/21/10	925	

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Printed: 10/01/2010 17:35