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2010 QUARTERLY GROUNDWATER MONITORING REPORT SEPTEMBER 2010

CONOCOPHILLIPS COMPANY SATEGNA No. 2E PRODUCTION FACILITY SAN JUAN COUNTY, NEW MEXICO

OCD No. - TBD

API # 30-045-24060

Prepared for:

ConocoPhillips

Risk Management and Remediation
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Prepared by:

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April 2011

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QUARTERLY GROUNDWATER MONITORING REPORT SATEGNA NO. 2E, SAN JUAN COUNTY, NEW MEXICO SEPTEMBER 2010

1.0 INTRODUCTION

This report presents the results of the September 23, 2010 quarterly groundwater monitoring event conducted by Tetra Tech, Inc. (Tetra Tech) at the ConocoPhillips Company (ConocoPhillips) Sategna No. 2E gas well production facility (Site) located on private land within Section 21, Township 29N, Range 11W of Bloomfield, New Mexico (**Figure 1**). A Site detail map is included as **Figure 2**.

1.1 Site Background

The historical timeline for the privately-owned Site is summarized below, and is presented in more detail in **Table 1**.

On November 24, 2008, approximately 8 barrels of condensate were found to have been released from an on-Site, aboveground storage tank (AST) as a result of corrosion in the tank. New Mexico Oil Conservation Division (OCD) Form C-141 was filled out by ConocoPhillips staff and notice was given to OCD via electronic mail. Form C-141 stated that the well was shut down and the production tank was emptied. The spilled fluids remained in the berm and none of the condensate was recovered. On November 25, 2008, Envirotech Inc. of Farmington, New Mexico (Envirotech) obtained grab soil samples from just outside the affected area for analysis of organic vapors. Results of this analysis were below OCD recommended action levels. Envirotech also hand-augered 2 soil borings to groundwater at a depth of approximately 8 feet below ground surface (bgs) and submitted two groundwater samples to an analytical laboratory for benzene, toluene, ethylbenzene and xylenes (BTEX) analysis. Results of these analyses revealed BTEX in concentrations below OCD action levels for these constituents.

On December 4, 2008, Envirotech returned to the Site and obtained grab and composite soil samples from an excavation measuring approximately 30 feet by 18 feet by 5 feet deep (**Figure 2**). Heated headspace organic vapor results ranged from 6.5 parts per million (ppm) in a grab soil sample obtained from the bottom of the excavation to 1,400 ppm from a composite soil sample taken from the former location of the AST; the OCD action level for organic vapors is 100 ppm. Total petroleum hydrocarbons (TPH), BTEX, and chloride samples were obtained for soils analysis, and results were all below OCD action levels for BTEX. Results for TPH analysis obtained through Environmental Protection Agency (EPA) method 8015B for the composite soil sample taken at the site of the AST revealed results of 205 mg/kg; the OCD action level is 100 mg/kg. Results for TPH analysis obtained through EPA method 418.1 for the composite soil sample obtained at the location of the below ground tank revealed results of 521 mg/kg. The below ground tank was located within the berm and adjacent to the AST (**Figure 2**).

Envirotech noted seepage of groundwater into the excavation on December 4, 2008, and returned to the Site on December 5, 2008 to collect groundwater samples from the excavation for BTEX analysis. The OCD groundwater action levels for benzene, toluene, and total xylenes are 10 ug/l, 750 ug/l, and 620 ug/l, respectively. Benzene was found at a concentration of 327 ug/l, toluene was detected at 4,300 ug/l, and total xylenes were found at a concentration of 8,480 ug/L. During the week of December 8, 2008, a vacuum truck was utilized to pump the groundwater seepage from the surface of the excavated area. Once removed, further excavation took place and groundwater slowly seeped into the excavation; this process was repeated a total of 4 times. The first time water was pumped from the surface of the excavation, a hydrocarbon odor and free-phase, light non-aqueous phase liquid (LNAPL) were present. By the fourth and last event, neither the hydrocarbon odor nor free-phase LNAPL was present in the groundwater seepage. Each pumping event removed approximately 30-60 barrels of liquid from the Site.

In January 2009, Tetra Tech conducted a site visit to determine proposed groundwater monitor well locations. Groundwater monitor wells were installed at the Site on March 4, 2009 and March 5, 2009. Tetra Tech initiated quarterly groundwater monitoring events with a baseline in April 2009.

During construction and trenching for relocation and reinstallation of production well equipment, additional hydrocarbon soil impacts were discovered and work was stopped. On April 2, 2009 Envirotech conducted an exploratory trench between the proposed location of the separator tank and the well head, and found an abandoned sewer line associated with hydrocarbon impacted soils. The trenching was stopped and the excavated soils were stockpiled on site. Tetra Tech returned to the site on April 23rd and 24th, to oversee removal of the hydrocarbon impacted soils that were discovered by the previous trenching west of the bermed area. Photoionization detector readings in the field indicated levels below the OCD action level, however, lab results were above the OCD action level for TPH for samples collected from all four walls of the excavation. The bottom sample results were below OCD action levels. The excavation was backfilled and equipment was reinstalled before analytical results were available.

2.0 MONITORING SUMMARY AND SAMPLING METHODOLOGY AND RESULTS

2.1 Monitoring Summary

Prior to collection of groundwater samples from Monitor Wells MW-1, MW-2 and MW-3, depth to groundwater was measured in each well using a dual interface probe. Results are displayed in **Table 2**.

The casings for Monitor Wells MW-1, MW-2, and MW-3 were surveyed in March 2009 using an arbitrary reference-elevation of 100 feet. The data obtained from the Site survey and from the September 23, 2010 sampling event were used to create a groundwater elevation map for the Site (**Figure 3**). Using these data, it was determined that the groundwater flow direction at the Site is to the southwest. A generalized geologic cross section for the Site is presented as **Figure 4**.

2.2 Groundwater Sampling Methodology

During the groundwater monitoring event, Site monitor wells were purged of at least 3 casing volumes of groundwater using a 1.5-inch diameter, polyethylene disposable bailer. While bailing each well, groundwater parameters were collected using a YSI 556 multi-parameter sonde and results were recorded on a Tetra Tech Water Sampling Field Form (**Appendix A**). Collected groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain-of-custody documentation to Southern Petroleum Laboratory (SPL) of Houston, Texas.

Each groundwater sample collected was analyzed for dissolved manganese by Environmental Protection Agency (EPA) Method 6010B; BTEX by EPA Method 8260B; and TDS by EPA Method 2540C. Results of all analyses are displayed in **Table 3**.

2.3 Groundwater Sampling Analytical Results

The New Mexico Water Quality Control Commission (NMWQCC) mandates that groundwater quality in New Mexico be protected, and has issued groundwater quality standards in Title 20, Chapter 6, Part 2, Section 3103 of the New Mexico Administrative Code (20.6.2.3103 NMAC). Groundwater quality standards have been set for the protection of human health, domestic water supply, and irrigation use. Exceedences of NMWQCC groundwater quality standards in Site monitor wells are discussed below.

- **Total Dissolved Solids**

  The NMWQCC domestic water supply groundwater quality standard for TDS is 1,000 mg/L; groundwater collected from Monitor Wells MW-1, MW-2 and MW-3 was found to contain TDS concentrations of 3,210 mg/L; 2,800 mg/L; and 3,570 mg/L, respectively.

- **Manganese**

  The NMWQCC domestic water supply groundwater quality standard for manganese is 0.2 mg/L; groundwater collected from Monitor Wells MW-1 and MW-3 was found to contain a manganese concentration of 0.238 and 1.68 mg/L, respectively.

- **Sulfate**

  The NMWQCC domestic water supply groundwater quality standard for sulfate is 600 mg/L; groundwater collected from Monitor Wells MW-1, MW-2, and MW-3 were found to contain sulfate in concentrations of 1,560; 1,510; and 1,910; respectively.

The corresponding laboratory analysis report for the September 23, 2010 groundwater sampling event is included in **Appendix B**. A map showing TDS, manganese, and sulfate concentrations in Site wells during the September 23, 2010 groundwater sampling event is included as **Figure 5**.

3.0 CONCLUSIONS AND RECOMMENDATIONS

The next quarterly groundwater monitoring event at the Site is scheduled for December 2010. Concentrations of dissolved manganese, sulfate and TDS have been detected above NMWQCC

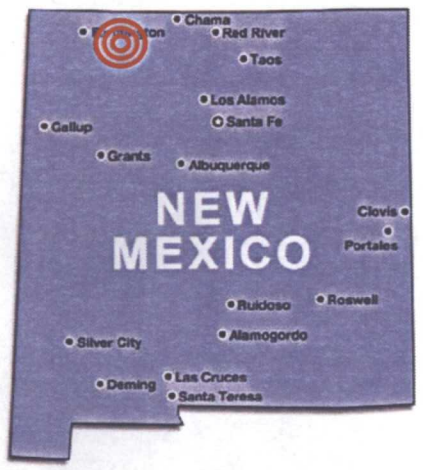
groundwater quality standards in groundwater monitor wells at the Site. As a result, Tetra Tech recommends that these constituents continue to be monitored as part of the quarterly monitoring program at the Site. BTEX was not found above laboratory detection limits in any Site monitor well, and Tetra Tech will continue to monitor for BTEX parameters in order to move toward Site closure.

Please contact Kelly Blanchard at 505-237-8440 or kelly.blanchard@tetratech.com if you have any questions or require additional information.

FIGURES

FIGURE 1.

Site Location Map
ConocoPhillips
Company
Sategna 2E
Bloomfield, NM



Directions from HWY 64 to ConocoPhillips Company Sategna 2E Site Location

ConocoPhillips Company Sategna 2E Site Location

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TETRA TECH, INC.

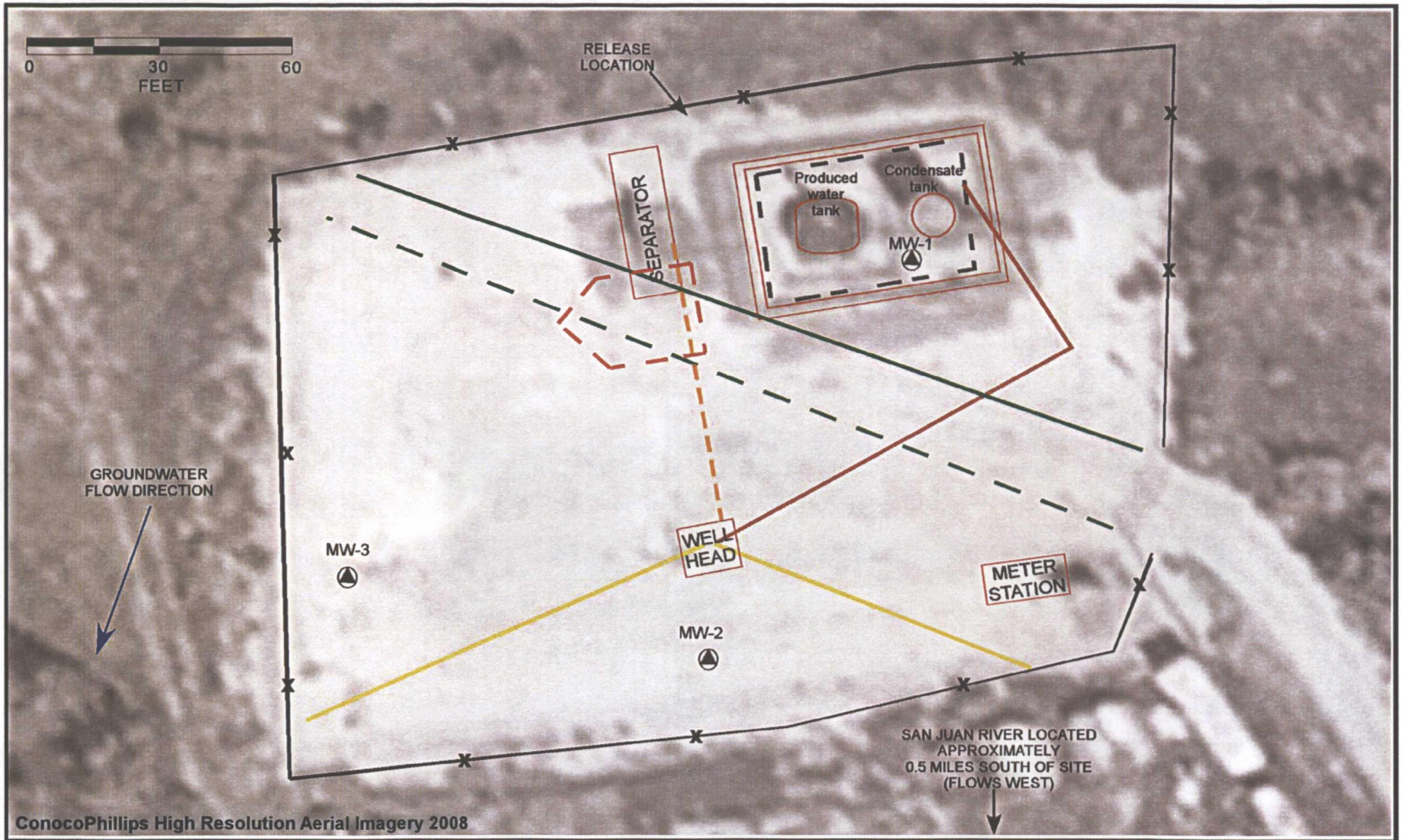

FIGURE 2:
SITE LAYOUT MAP
CONOCOPHILLIPS COMPANY
SATEGNA No. 2E GAS PRODUCTION WELL
Sec 21, T29N, R11W
Bloomfield, New Mexico

LEGEND

- GENERAL AREA OF DECEMBER 2008 EXCAVATION
- BERM AND ASSOCIATED EQUIPMENT
- FENCE LINE
- MONITOR WELL
- ACTIVE SEWER LINE
- ABANDONED SEWER LINE
- SEPARATOR LINE
- GAS LINE
- ELECTRIC LINE
- GENERAL AREA OF MAR/APR 2009 EXCAVATION

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TETRA TECH, INC.

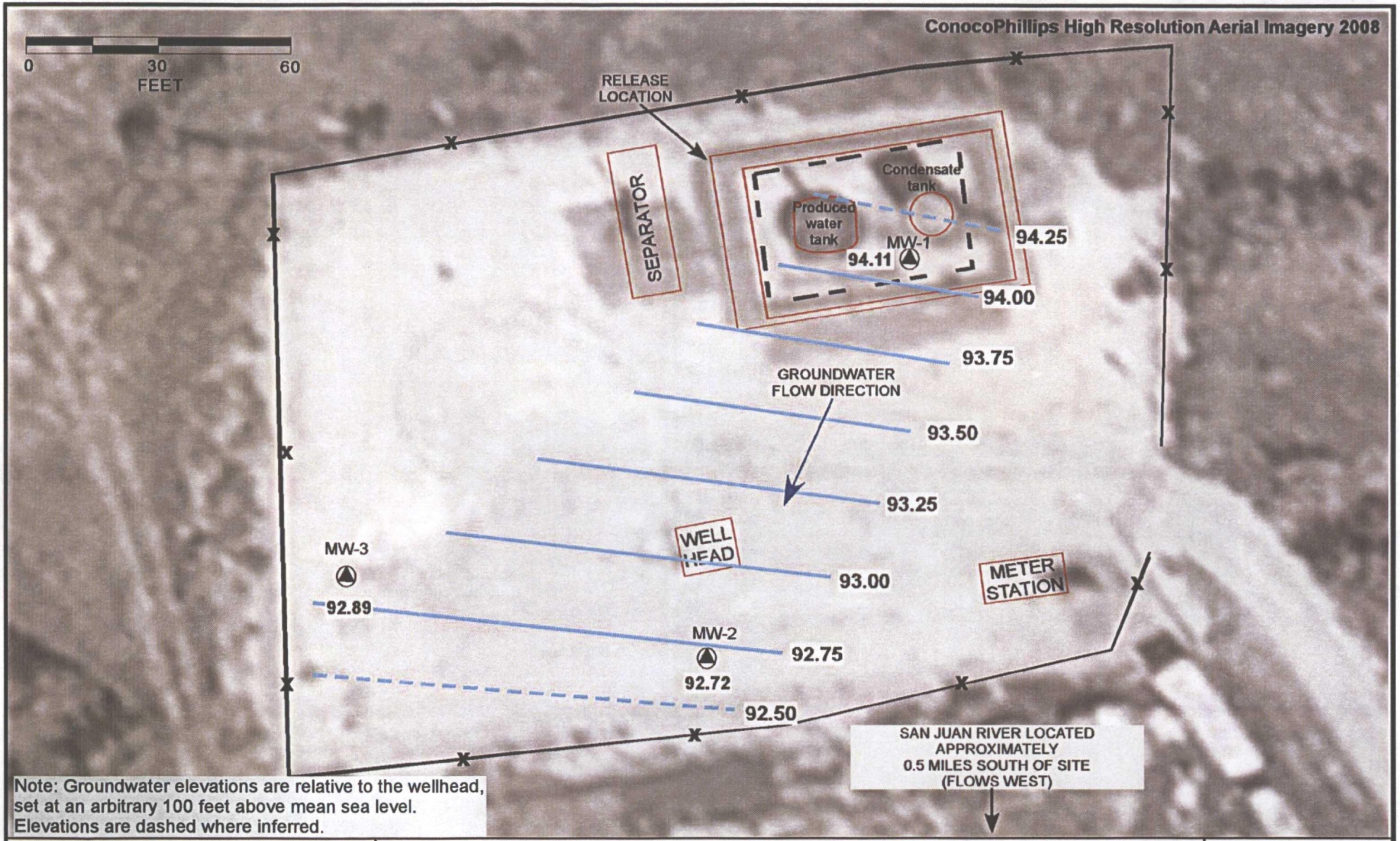

FIGURE 3:
GROUNDWATER ELEVATION MAP
September 2010
CONOCOPHILLIPS COMPANY
SATEGNA No. 2E
GAS PRODUCTION WELL
Sec 21, T29N, R11W
Bloomfield, New Mexico

LEGEND

- BERM AND ASSOCIATED EQUIPMENT
- FENCE LINE
- MONITORING WELL

0 30 60
FEET

N

TETRA TECH, INC.

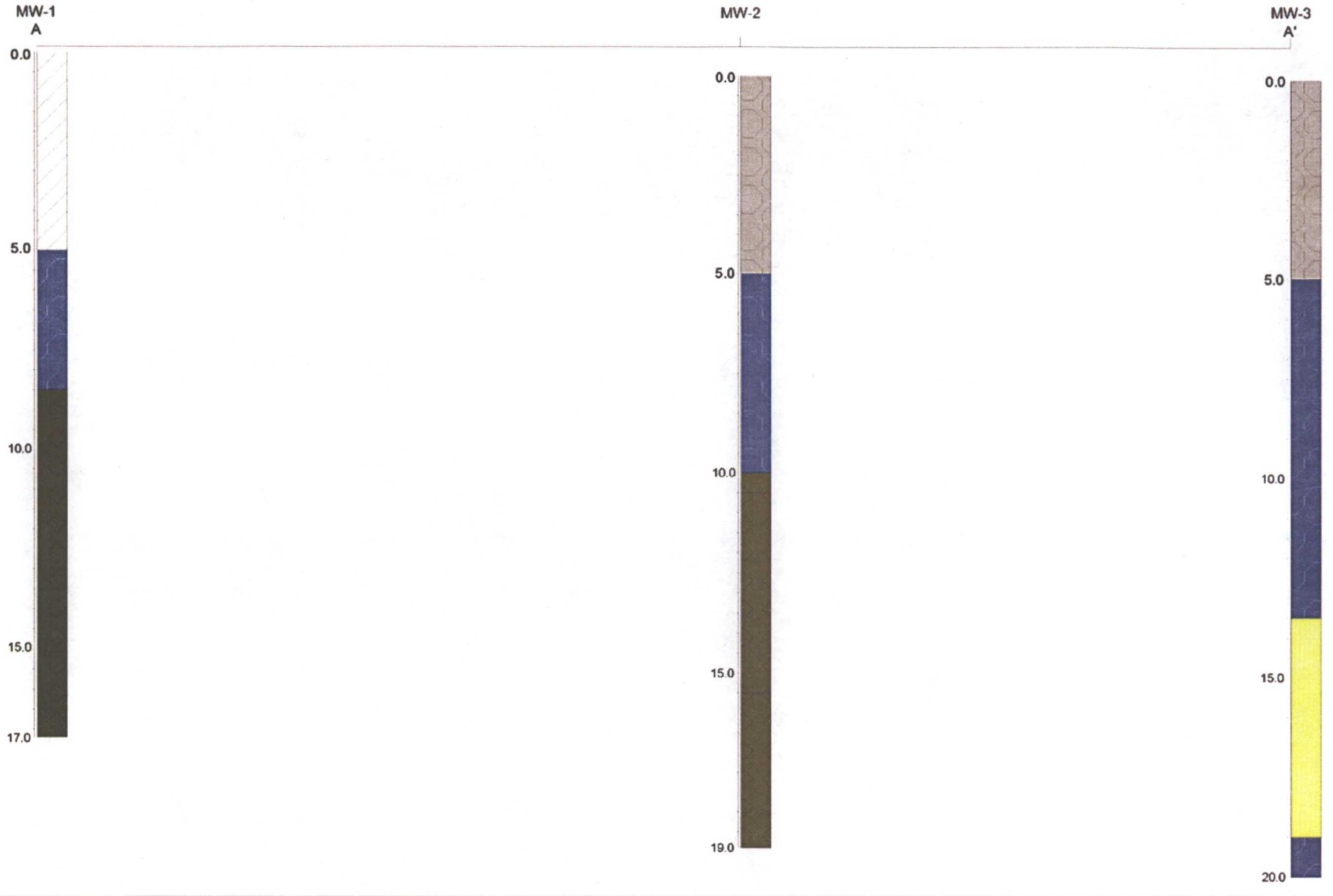

FIGURE 4:
GENERALIZED GEOLOGIC CROSS SECTION
CONOCOPHILLIPS COMPANY
SATEGNA No. 2E GAS PRODUCTION WELL
Sec 21, T29N, R11W
Bloomfield, New Mexico

LEGEND

- Backfill from excavation
- Clay
- Clayey sand with cobbles
- Coarse grained sand
- Well graded sand with clay

TETRA TECH, INC.

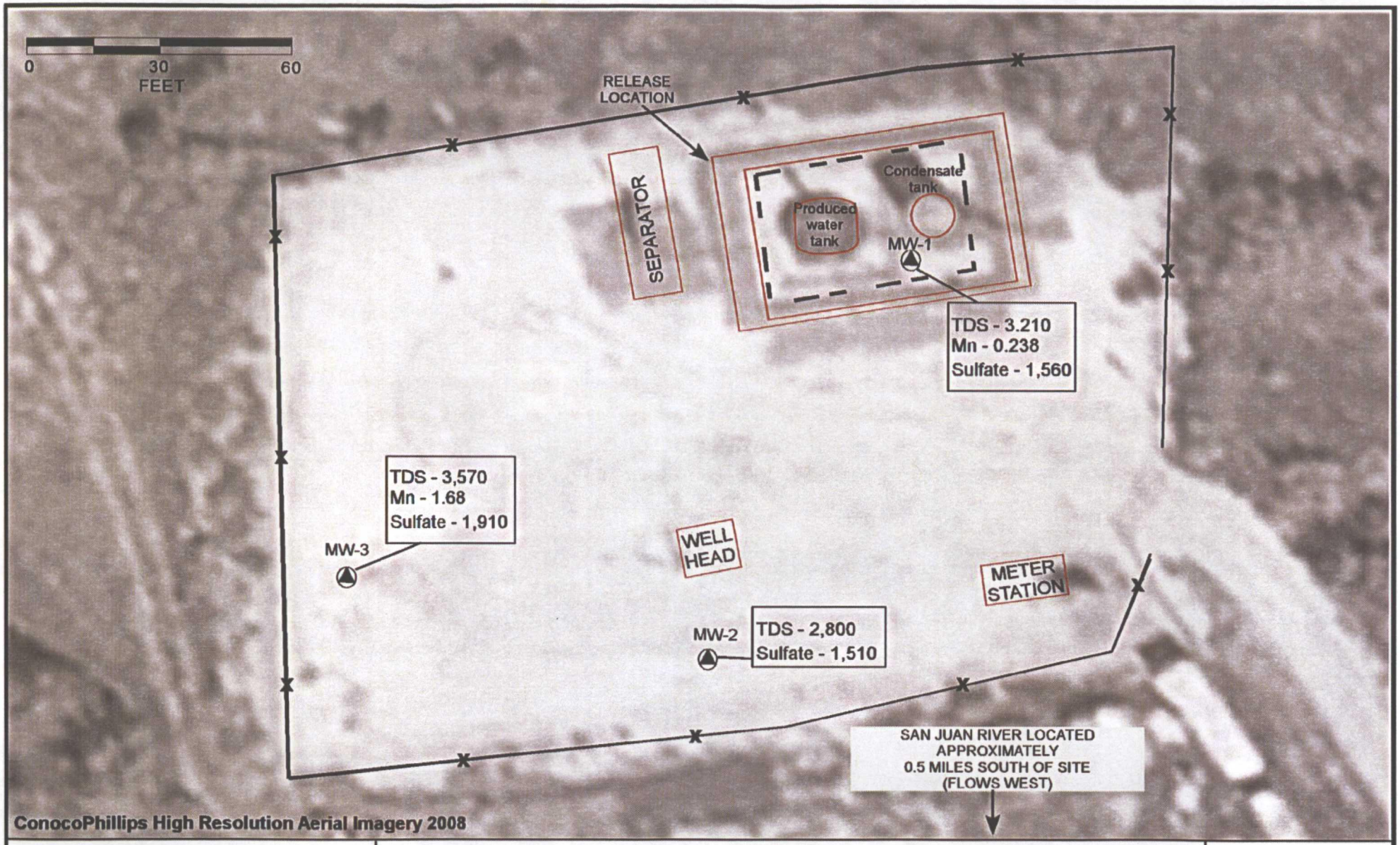

FIGURE 5:
GROUNDWATER QUALITY MAP
September 2010
CONOCOPHILLIPS COMPANY
SATEGNA No. 2E
GAS PRODUCTION WELL
Sec 21, T29N, R11W
Bloomfield, New Mexico

LEGEND

BERM AND ASSOCIATED EQUIPMENT

FENCE LINE

MONITOR WELL

TDS - 1,000
Mn - 0.2
Sulfate - 600

Total Dissolved Solids, Manganese, and Sulfate Concentrations in Site Monitoring Wells.
NMWQCC Groundwater Quality Standards Shown at Left (mg/L).

0 30 60
FEET

N

TETRA TECH, INC.

TABLES

Table 1. Site History Timeline

Date	Activity
November 24, 2008	Approximately eight (8) barrels of condensate were found to have spilled from an on-Site, aboveground storage tank (AST); corrosion was thought to be the cause of the release. Form C-141 was filled out by ConocoPhillips staff and notice was given to Brandon Powell via electronic mail. Form C-141 stated that the well was shut down and the production tank was emptied. The spilled fluids remained in the berm and none of the condensate was recovered.
November 25, 2008	Envirotech Inc. of Farmington, NM (Envirotech) obtained heated headspace soil results from just outside of the affected area; results were 0.2 and 1.1 parts per million (ppm). Depth of soil samples was not noted. Envirotech hand augered two soil borings to groundwater at a depth of approximately 8 feet below ground surface (bgs) and submitted groundwater samples for analysis. Results were below OCD action levels for benzene, toluene, ethylbenzene, and total xylenes (BTEX) in groundwater. Envirotech notes that groundwater levels in the soil borings increased to approximately 5 feet bgs, and groundwater beneath the Site was thought to be under confined aquifer conditions (Kerr, 2009).
December 4, 2008	Envirotech returned to the Site and obtained grab and composite soil samples from an excavation measuring approximately* 30 feet by 18 feet by 5 feet deep (Figure 2). Heated headspace results show values ranging from 6.5 ppm in a grab soil sample obtained from the bottom of the excavation to 1,400 ppm from a composite soil sample taken from the former location of the AST. Total petroleum hydrocarbons (TPH), BTEX, and chloride samples were obtained for soils analysis, and results were all below OCD action levels for BTEX; one soil sample obtained for chlorides showed results of 370 milligrams per kilogram (mg/kg). Results for TPH analysis obtained through Environmental Protection Agency (EPA) method 8015B for the composite soil sample taken at the site of the AST revealed results of 205 mg/kg; the OCD action level is 100 mg/kg. Results for TPH analysis obtained through EPA method 418.1 for the composite soil sample obtained at the location of the below ground tank revealed results of 521 mg/kg. The below ground tank was located within the berm and adjacent to the AST (Figure 2). Results of all other soil analyses at all other sampling locations were below OCD action levels (Appendix A).
December 5, 2008	Envirotech notes seepage of groundwater into the excavation on December 4, 2008, and returns to the Site on December 5, 2008 to collect groundwater samples from the excavation for BTEX analysis. (Kerr, 2009). The OCD groundwater action levels for benzene, toluene, and total xylenes are 10 ug/l, 750 ug/l, and 620 ug/l, respectively. Benzene was found at a concentration of 327 ug/l, toluene was detected at 4,300 ug/l, and total xylenes were found at a concentration of 8,480 ug/L (Appendix A).
Week of December 8, 2008	A vacuum truck was utilized to pump groundwater seepage from the surface of the excavated area. Once removed, further excavation took place and groundwater slowly seeped into the excavation; this process was repeated a total of four (4) times. The first time water was pumped from the surface of the excavation, a hydrocarbon odor and free-phase, light non-aqueous phase liquid (LNAPL) were present. By the fourth and last event, neither the hydrocarbon odor nor free-phase LNAPL was present in the groundwater seepage. Each pumping event removed approximately 30-60 barrels of liquid from the Site (Frost, 2009).
January 20, 2009 & January 30, 2009	Tetra Tech conducted a Site visit to determine proposed groundwater monitoring well locations.
March 4-5, 2009	Tetra Tech installed three groundwater monitor wells at the Site: MW-1, MW-2, and MW-3.
March 2009	Construction and trenching for relocation of well operational equipment and tanks uncovered additional hydrocarbon impacted soils between the well head and separator tank. Work was stopped.
April 2, 2009	Tetra Tech conducted the first quarterly groundwater monitoring event at the Site.

Table 1. Site History Timeline

Date	Activity
April 2, 2009	Envirotech created an exploratory trench between the proposed location of the separator tank and the well head and found an abandoned sewer line associated with hydrocarbon-impacted soils. The trenching was stopped and the excavated soils were stockpiled on site.
April 23 - 24, 2009	Tetra Tech provided oversight for removal of approximately 96 cubic yards of hydrocarbon-impacted soils located west of the tank berm and in the vicinity of the abandoned sewer line.
June 17, 2009	Tetra Tech conducted the second quarterly groundwater monitoring event at the Site.
September 28, 2009	Tetra Tech conducted the third quarterly groundwater monitoring event at the Site.
December 14, 2009	Tetra Tech conducted the fourth quarterly groundwater monitoring event at the Site.
March 31, 2010	Tetra Tech conducted the fith quarterly groundwater monitoring event at the Site.
June 7, 2010	Tetra Tech conducted the sixth quarterly groundwater monitoring event at the Site.
September 23, 2010	Tetra Tech conducted the seventh quarterly groundwater monitoring event at the Site.

Table 2 - 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	20.30	2.2 - 17.2	99.36	4/2/2009	5.15	94.21
				6/17/2009	5.43	93.93
				9/28/2009	5.45	93.91
				12/14/2009	5.06	94.30
				3/31/2010	5.03	94.33
				6/7/2010	5.41	93.95
				9/23/2010	5.25	94.11
MW-2	20.90	3.33 - 18.33	98.78	4/2/2009	5.96	92.82
				6/17/2009	6.21	92.57
				9/28/2009	6.23	92.55
				12/14/2009	5.92	92.86
				3/31/2010	5.90	92.88
				6/7/2010	6.21	92.57
				9/23/2010	6.06	92.72
MW-3	20.28	3.0 - 18.0	98.66	4/2/2009	5.70	92.96
				6/17/2009	5.97	92.69
				9/28/2009	5.96	92.70
				12/14/2009	5.63	93.03
				3/31/2010	5.61	93.05
				6/7/2010	5.95	92.71
				9/23/2010	5.77	92.89

ft = Feet

TOC = Top of casing

bgs = below ground surface

* Elevation relative to wellhead, set at 100 feet.

Table 3. Groundwater Laboratory Analytical Results Summary

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Sulfate (mg/L)	Aluminum (mg/L)	Iron (mg/L)	Manganese (mg/L)	Total Dissolved Solids (mg/L)
MW-1	4/2/2009	< 5	< 5	< 5	< 5	**1790**	7.25*	7.2*	2.7*	NA
	6/17/2009	< 5	< 5	< 5	< 5	**1420**	6.87*	5.63*	2.37*	NA
	9/28/2009	< 1	< 1	< 1	< 1	**1770**	<0.1	<0.02	**0.243**	**2590**
	12/14/2009	<1	<1	<1	<1	NA	NA	NA	0.152	**2470**
	3/31/2010	<1	<1	<1	<1	**1320**	NA	NA	0.176	**2470**
	6/7/2010	<1	<1	<1	<1	**1330**	NA	NA	**0.206**	**2580**
	9/23/2010	<1	<1	<1	<1	**1560**	NA	NA	**0.238**	**3210**
MW-2	4/2/2009	< 5	< 5	< 5	< 5	**1850**	10.1*	10.4*	6.76*	NA
	6/17/2009	< 5	< 5	< 5	< 5	**1610**	5.24*	5.52*	2.6*	NA
	9/28/2009	< 1	< 1	< 1	< 1	**1840**	<0.1	0.0217	0.168	**2260**
	12/14/2009	<1	<1	<1	<1	NA	NA	NA	0.158	**2470**
	3/31/2010	<1	<1	<1	<1	**1530**	NA	NA	0.136	**2620**
	6/7/2010	<1	<1	<1	<1	**1290**	NA	NA	0.157	**2590**
	9/23/2010	<1	<1	<1	<1	**1510**	NA	NA	0.0981	**2800**
MW-3	4/2/2009	< 5	< 5	< 5	< 5	**2110**	0.848*	1.02*	1.9*	NA
	6/17/2009	< 5	< 5	< 5	< 5	**1650**	0.702*	1.49*	2.22*	NA
	9/28/2009	< 1	< 1	< 1	< 1	**2230**	<0.1	<0.02	**2.68**	**3340**
	12/14/2009	<1	<1	<1	<1	NA	NA	NA	**2.4**	**3060**
	3/31/2010	<1	<1	<1	<1	**1660**	NA	NA	**1.71**	**3090**
	6/7/2010	<1	<1	<1	<1	**1760**	NA	NA	**0.968**	**2650**
	9/23/2010	<1	<1	<1	<1	**1910**	NA	NA	**1.68**	**3570**
NMWQCC Standards		**10 (µg/L)**	**750 (µg/L)**	**750 (µg/L)**	**620 (µg/L)**	**600 (mg/L)**	**5 (mg/L)**	**1 (mg/L)**	**0.2 (mg/L)**	**1000 (mg/L)**

Explanation

ND = Not Detected
NMWQCC = New Mexico Water Quality Control Commission
mg/L = milligrams per liter (parts per million)
µg/L = micrograms per liter (parts per billion)
NA = Not Analyzed
<0.7 = Below laboratory detection limit of 0.7 ug/L
Bold = concentrations that exceed the NMWQCC limits
* = Results reported for total metals analysis, results cannot be compared to NMWQCC Standards for dissolved metals

APPENDIX A

Groundwater Sampling Field Forms

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name Sategna 2E — Page 1 of 3

Project No.

Site Location Bloomfield, NM

Site/Well No. MW-1 — Coded/Replicate No. Duplicate @ 0920 — Date 9-23-10

Weather Sunny, cool 50° — Time Sampling Began 0855 — Time Sampling Completed 0915

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface — MP Elevation

Total Sounded Depth of Well Below MP 20.3 — Water-Level Elevation

Held — Depth to Water Below MP 5.25 — Diameter of Casing 2"

Wet — Water Column in Well 15.05 — Gallons Pumped/Bailed Prior to Sampling 7.25

Gallons per Foot 0.16

Gallons in Well 2.408 x 3 = 7.22 — Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
9:08	14.43	7.36	2558	1.663	9.50	81.5	34.3	6.5
9:10	14.25	7.31	2554	1.660	2.82	28.2	36.8	6.75
9:12	14.30	7.28	2552	1.659	2.02	20.0	38.4	7.0

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Mn	16 oz Plastic	None
Sulfate, TDS	32 oz Plastic	None

Remarks H2O is brown & silty. no odor or sheen observed.

Sampling Personnel Cassie Brown & Christine Mathews

Well Casing Volumes

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

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name Sategna 2E — Page 2 of 3

Project No.

Site Location Bloomfield, NM

Site/Well No. MW-2 — Coded/ Replicate No. — Date 9.23.10

Weather Sunny, Cool SAG — Time Sampling Began 0910 — Time Sampling Completed 0930

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface — MP Elevation

Total Sounded Depth of Well Below MP 20.9 — Water-Level Elevation

Held — Depth to Water Below MP 6.02 — Diameter of Casing 2"

Wet — Water Column in Well 14.88 — Gallons Pumped/Bailed Prior to Sampling 7.25

Gallons per Foot 0.16

Gallons in Well 2.37 x 3 = 7.12

Sampling Pump Intake (feet below land

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
0921	17.15	7.33	26034	1.713	2.76	30.2	68.1	4.5
0923	16.94	7.26	26030	1.709	1.64	16.8	69.3	6.75
0924	16.90	7.24	26029	1.709	1.51	15.9	69.9	7.25

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Mn	16 oz Plastic	None
Sulfate, TDS	32 oz Plastic	None

Remarks H2O is brown & silty, no odor or sheen observed

Sampling Personnel Casey Brown & Christine Mathews

Well Casing Volumes

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

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name Sategna 2E — Page 3 of 3

oject No.

Site Location Bloomfield, NM

Site/Well No. MW-3 — Coded/ Replicate No. — Date 9-23-10

Weather Sunny, cool SA — Time Sampling Began 0915 — Time Sampling Completed 0935

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface — MP Elevation

Total Sounded Depth of Well Below MP 20.28 — Water-Level Elevation

Held — Depth to Water Below MP 5.77 — Diameter of Casing 2"

Wet — Water Column in Well 14.51 — Gallons Pumped/Bailed Prior to Sampling 4.25

Gallons per Foot 0.16

Gallons in Well 2.32 x 3 = 6.96 — Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / (Bailer)

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
0933	15.58	7.32	3019	1.961	8.05	71.1	71.6	3.50
0934	15.40	7.25	3033	1.971	2.08	20.6	65.1	4.00
0935	15.53	7.23	3067	1.993	1.32	16.4	51.3	4.25

Sampling Equipment Purge Pump/(Bailer)

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Mn	16 oz Plastic	None
Sulfate, TDS	32 oz Plastic	None

Remarks Bailed dry @ 3.25 gallons. H_2O is brown & silty no odor or sheen observed

Sampling Personnel Casey Brown & Christine Mathews

Well Casing Volumes

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

APPENDIX B

Groundwater Laboratory Analysis Reports

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

Certificate of Analysis

October 12, 2010

Workorder: H10090646

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

Project: Sategna 2E

Project Number: COP - Sategna 2E

Site: Sategna 2E

PO Number: ENFOS

NELAC Cert. No.: T104704205-09-3

This Report Contains A Total Of 19 Pages

Excluding Any Attachments

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Certificate of Analysis

October 12, 2010

Workorder: H10090646

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

Project: Sategna 2E

Project Number: COP - Sategna 2E

Site: Sategna 2E

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 12, 2010

Workorder: H10090646

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PO Number: ENFOS

NELAC Cert. No.: T104704205-09-3

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

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

Erica Cardenas, Senior Project Manager

Enclosures

SPL Inc.
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SAMPLE SUMMARY

Workorder: H10090646 : Sategna 2E

Project Number: COP - Sategna 2E

Lab ID	Sample ID	Matrix	COC ID	Date/Time Collected	Date/Time Received
H10090646001	MW-2	Water		9/23/2010 09:30	9/25/2010 08:55
H10090646002	MW-3	Water		9/23/2010 09:35	9/25/2010 08:55
H10090646003	MW-1	Water		9/23/2010 09:15	9/25/2010 08:55
H10090646004	Duplicate	Water		9/23/2010 09:20	9/25/2010 08:55
H10090646005	Trip Blank	Water		9/23/2010 12:30	9/25/2010 08:55

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ANALYTICAL RESULTS

Workorder: H10090646 : Sategna 2E | Project Number: COP - Sategna 2E

Lab ID: **H10090646001** | Date/Time Received: 9/25/2010 08:55 | Matrix: Water

Sample ID: **MW-2** | Date/Time Collected: 9/23/2010 09:30

VOLATILES

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

Batch: 2677 SW-846 8260B on 10/01/2010 08:15 by LKL

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.13	1			2677
Ethylbenzene	ND		1.0	0.48	1			2677
Toluene	ND		1.0	0.13	1			2677
m,p-Xylene	ND		1.0	0.58	1			2677
o-Xylene	ND		1.0	0.35	1			2677
Xylenes, Total	ND		1.0	0.35	1			2677
4-Bromofluorobenzene (S)	102 %		74-125		1			2677
1,2-Dichloroethane-d4 (S)	90.1 %		70-130		1			2677
Toluene-d8 (S)	104 %		82-118		1			2677

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B | Preparation Batches:

Batch: 2100 SW-846 3010A on 09/27/2010 15:00 by R_V

Analytical Batches:

Batch: 1647 SW-846 6010B on 10/01/2010 15:32 by EBG

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Manganese	0.0981		0.00500	0.000300	1		2100	1647

Analysis Desc: EPA 300.0 | Analytical Batches:

Batch: 1484 EPA 300.0 on 09/27/2010 22:29 by GLN

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Sulfate	1510		500	43.5	1000			1484

WET CHEMISTRY

Analysis Desc: SM 2540 C | Analytical Batches:

Batch: 1824 SM 2540 C on 09/26/2010 12:56 by MMAL

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Residue, Filterable (TDS)	2800		100	39.4	10			1824

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ANALYTICAL RESULTS

Workorder: H10090646 : Sategna 2E | Project Number: COP - Sategna 2E

Lab ID: **H10090646002** | Date/Time Received: 9/25/2010 08:55 | Matrix: Water

Sample ID: **MW-3** | Date/Time Collected: 9/23/2010 09:35

VOLATILES

Analysis Desc: SW-846 8260B | SW-846 5030Analytical Batches:
Batch: 2677 SW-846 8260B on 10/01/2010 08:42 by LKL

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.13	1			2677
Ethylbenzene	ND		1.0	0.48	1			2677
Toluene	ND		1.0	0.13	1			2677
m,p-Xylene	ND		1.0	0.58	1			2677
o-Xylene	ND		1.0	0.35	1			2677
Xylenes, Total	ND		1.0	0.35	1			2677
4-Bromofluorobenzene (S)	101 %		74-125		1			2677
1,2-Dichloroethane-d4 (S)	91.4 %		70-130		1			2677
Toluene-d8 (S)	102 %		82-118		1			2677

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B | Preparation Batches:
Batch: 2100 SW-846 3010A on 09/27/2010 15:00 by R_V
Analytical Batches:
Batch: 1647 SW-846 6010B on 10/01/2010 15:44 by EBG

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Manganese	1.68		0.00500	0.000300	1		2100	1647

Analysis Desc: EPA 300.0 | Analytical Batches:
Batch: 1484 EPA 300.0 on 09/27/2010 22:46 by GLN

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Sulfate	1910		500	43.5	1000			1484

WET CHEMISTRY

Analysis Desc: SM 2540 C | Analytical Batches:
Batch: 1824 SM 2540 C on 09/26/2010 12:56 by MMAL

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Residue, Filterable (TDS)	3570		100	39.4	10			1824

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ANALYTICAL RESULTS

Workorder: H10090646 : Sategna 2E | Project Number: COP - Sategna 2E

Lab ID: **H10090646003** | Date/Time Received: 9/25/2010 08:55 | Matrix: Water

Sample ID: **MW-1** | Date/Time Collected: 9/23/2010 09:15

VOLATILES

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

Batch: 2677 SW-846 8260B on 10/01/2010 09:08 by LKL

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.13	1			2677
Ethylbenzene	ND		1.0	0.48	1			2677
Toluene	ND		1.0	0.13	1			2677
m,p-Xylene	ND		1.0	0.58	1			2677
o-Xylene	ND		1.0	0.35	1			2677
Xylenes, Total	ND		1.0	0.35	1			2677
4-Bromofluorobenzene (S)	104 %		74-125		1			2677
1,2-Dichloroethane-d4 (S)	92.1 %		70-130		1			2677
Toluene-d8 (S)	104 %		82-118		1			2677

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B | Preparation Batches:

Batch: 2100 SW-846 3010A on 09/27/2010 15:00 by R_V

Analytical Batches:

Batch: 1647 SW-846 6010B on 10/01/2010 15:56 by EBG

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Manganese	0.238		0.00500	0.000300	1		2100	1647

Analysis Desc: EPA 300.0 | Analytical Batches:

Batch: 1484 EPA 300.0 on 09/27/2010 23:03 by GLN

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Sulfate	1560		500	43.5	1000			1484

WET CHEMISTRY

Analysis Desc: SM 2540 C | Analytical Batches:

Batch: 1824 SM 2540 C on 09/26/2010 12:56 by MMAL

Parameters	Results mg/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Residue, Filterable (TDS)	3210		100	39.4	10			1824

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ANALYTICAL RESULTS

Workorder: H10090646 : Sategna 2E

Project Number: COP - Sategna 2E

Lab ID: **H10090646004**
Date/Time Received: 9/25/2010 08:55
Matrix: Water

Sample ID: **Duplicate**
Date/Time Collected: 9/23/2010 09:20

VOLATILES

Analysis Desc: SW-846 8260B
SW-846 5030Analytical Batches:
Batch: 2677 SW-846 8260B on 10/01/2010 09:35 by LKL

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.13	1			2677
Ethylbenzene	ND		1.0	0.48	1			2677
Toluene	ND		1.0	0.13	1			2677
m,p-Xylene	ND		1.0	0.58	1			2677
o-Xylene	ND		1.0	0.35	1			2677
Xylenes, Total	ND		1.0	0.35	1			2677
4-Bromofluorobenzene (S)	106 %		74-125		1			2677
1,2-Dichloroethane-d4 (S)	93.9 %		70-130		1			2677
Toluene-d8 (S)	104 %		82-118		1			2677

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ANALYTICAL RESULTS

Workorder: H10090646 : Sategna 2E | Project Number: COP - Sategna 2E

Lab ID: **H10090646005** | Date/Time Received: 9/25/2010 08:55 | Matrix: Water

Sample ID: **Trip Blank** | Date/Time Collected: 9/23/2010 12:30

VOLATILES

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

Batch: 2677 SW-846 8260B on 10/01/2010 07:48 by LKL

Parameters	Results ug/l	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
Benzene	ND		1.0	0.13	1			2677
Ethylbenzene	ND		1.0	0.48	1			2677
Toluene	ND		1.0	0.13	1			2677
m,p-Xylene	ND		1.0	0.58	1			2677
o-Xylene	ND		1.0	0.35	1			2677
Xylenes, Total	ND		1.0	0.35	1			2677
4-Bromofluorobenzene (S)	99.6 %		74-125		1			2677
1,2-Dichloroethane-d4 (S)	91.6 %		70-130		1			2677
Toluene-d8 (S)	102 %		82-118		1			2677

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QUALITY CONTROL DATA

Workorder: H10090646 : Sategna 2E — Project Number: COP - Sategna 2E

QC Batch: MSV/2676 — Analysis Method: SW-846 8260B

QC Batch Method: SW-846 5030 — Preparation: 09/30/2010 00:00 by LKL

Associated Lab Samples: H10090645001, H10090645002, H10090645003, H10090645004, H10090645005, H10090645006, H10090646001, H10090646002, H10090646003, H10090646004, H10090646005

METHOD BLANK: 73258

Analysis Date/Time Analyst: 10/01/2010 04:16 LKL

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Benzene	ug/l	ND		1.0
Ethylbenzene	ug/l	ND		1.0
Toluene	ug/l	ND		1.0
m,p-Xylene	ug/l	ND		1.0
o-Xylene	ug/l	ND		1.0
Xylenes, Total	ug/l	ND		1.0
4-Bromofluorobenzene (S)	%	103		74-125
1,2-Dichloroethane-d4 (S)	%	93.2		70-130
Toluene-d8 (S)	%	104		82-118

LABORATORY CONTROL SAMPLE: 73259

Analysis Date/Time Analyst: 10/01/2010 03:48 LKL

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Benzene	ug/l	20	20.8	104	74-123
Ethylbenzene	ug/l	20	20.4	102	72-127
Toluene	ug/l	20	19.8	99.0	74-126
m,p-Xylene	ug/l	40	41.2	103	71-129
o-Xylene	ug/l	20	20.1	100	74-130
Xylenes, Total	ug/l	60	61.24	102	71-130
4-Bromofluorobenzene (S)	%			109	74-125
1,2-Dichloroethane-d4 (S)	%			94.4	70-130
Toluene-d8 (S)	%			104	82-118

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 73260 73261 Original: H10090646004

MS Analysis Date/Time Analyst: 10/01/2010 10:02 LKL

MSD Analysis Date/Time Analyst: 10/01/2010 10:29 LKL

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	22.3	110	111	70-124	1.1	20
Ethylbenzene	ug/l	ND	20	20.2	20.6	101	103	35-175	2.1	20
Toluene	ug/l	ND	20	20.2	20.8	101	104	70-131	2.9	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: H10090646 : Sategna 2E — Project Number: COP - Sategna 2E

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 73260 73261 Original: H10090646004

MS Analysis Date/Time Analyst: 10/01/2010 10:02 LKL

MSD Analysis Date/Time Analyst: 10/01/2010 10:29 LKL

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
m,p-Xylene	ug/l	ND	40	40.2	40.3	100	101	35-175	0.3	20
o-Xylene	ug/l	ND	20	20.1	20.5	101	103	35-175	1.8	20
Xylenes, Total	ug/l	ND	60	60.31	60.82	101	101	35-175	0.8	20
4-Bromofluorobenzene (S)	%	106				108	106	74-125		
1,2-Dichloroethane-d4 (S)	%	93.9				90.2	89.0	70-130		
Toluene-d8 (S)	%	104				103	102	82-118		

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

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QUALITY CONTROL DATA

Workorder: H10090646 : Sategna 2E — Project Number: COP - Sategna 2E

QC Batch: DIGM/2100 — Analysis Method: SW-846 6010B

QC Batch Method: SW-846 3010A — Preparation: 09/27/2010 15:00 by R_V

Associated Lab Samples: H10090638001, H10090638002, H10090644001, H10090644002, H10090644003, H10090644004, H10090645001, H10090645002, H10090645003, H10090645004, H10090646001, H10090646002, H10090646003

METHOD BLANK: 71885

Analysis Date/Time Analyst: 10/01/2010 13:12 EBG

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

LABORATORY CONTROL SAMPLE: 71886

Analysis Date/Time Analyst: 10/01/2010 13:18 EBG

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Manganese	mg/l	0.10	0.1014	101	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 71883 71884 Original: H10090644004

MS Analysis Date/Time Analyst: 10/01/2010 13:30 EBG

MSD Analysis Date/Time Analyst: 10/01/2010 13:36 EBG

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Manganese	mg/l	9.73	0.10	9.713	9.957	NC	NC	75-125	NC	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: H10090646 : Sategna 2E — Project Number: COP - Sategna 2E

QC Batch: IC/1484 — Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: H10090644001, H10090644002, H10090644003, H10090644004, H10090645001, H10090645002, H10090645003, H10090645004, H10090646001, H10090646002, H10090646003

METHOD BLANK: 74573

Analysis Date/Time Analyst: 09/27/2010 13:58 GLN

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Sulfate	mg/l	ND		0.500

LABORATORY CONTROL SAMPLE & LCSD: 74574 74575

LCS Analysis Date/Time Analyst: 09/27/2010 14:15 GLN

LCSD Analysis Date/Time 09/28/2010 10:46 GLN

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD
Sulfate	mg/l	10	9.776	9.766	97.8	97.7	85-115	0.1	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 74576 74577 Original: H10090644004

MS Analysis Date/Time Analyst: 09/27/2010 21:55 GLN

MSD Analysis Date/Time Analyst: 09/27/2010 22:12 GLN

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Sulfate	mg/l	3750	10000	14040	14010	103	103	80-120	0.2	20

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

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QUALITY CONTROL DATA

Workorder: H10090646 : Sategna 2E

Project Number: COP - Sategna 2E

QC Batch: WETS/1824

Analysis Method: SM 2540 C

QC Batch Method: SM 2540 C

Associated Lab Samples: H10090645001 H10090645002 H10090645003 H10090645004 H10090646001 H10090646002 H10090646003

METHOD BLANK: 72011

Analysis Date/Time Analyst: 09/26/2010 12:56 MMAL

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
Residue, Filterable (TDS)	mg/l	ND		10.0

LABORATORY CONTROL SAMPLE & LCSD: 72012 72013

LCS Analysis Date/Time Analyst: 09/26/2010 12:56 MMAL

LCSD Analysis Date/Time 09/26/2010 12:56 MMAL

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD
Residue, Filterable (TDS)	mg/l	200	201.0	200.0	100	100	95-107	0.5	10

SAMPLE DUPLICATE: 71746

Original: H10090645001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	DF
WET CHEMISTRY						10
Residue, Filterable (TDS)	mg/l	10400	10500	0.9	10	10

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: H10090646 : Sategna 2E

Project Number: COP - Sategna 2E

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
H10090646001	**MW-2**	SM 2540 C	WETS/1824		
H10090646002	**MW-3**	SM 2540 C	WETS/1824		
H10090646003	**MW-1**	SM 2540 C	WETS/1824		
H10090646001	**MW-2**	SW-846 3010A	DIGM/2100	SW-846 6010B	ICP/1647
H10090646002	**MW-3**	SW-846 3010A	DIGM/2100	SW-846 6010B	ICP/1647
H10090646003	**MW-1**	SW-846 3010A	DIGM/2100	SW-846 6010B	ICP/1647
H10090646001	**MW-2**	SW-846 5030	MSV/2676	SW-846 8260B	MSV/2677
H10090646002	**MW-3**	SW-846 5030	MSV/2676	SW-846 8260B	MSV/2677
H10090646003	**MW-1**	SW-846 5030	MSV/2676	SW-846 8260B	MSV/2677
H10090646004	**Duplicate**	SW-846 5030	MSV/2676	SW-846 8260B	MSV/2677
H10090646005	**Trip Blank**	SW-846 5030	MSV/2676	SW-846 8260B	MSV/2677
H10090646001	**MW-2**	EPA 300.0	IC/1484		
H10090646002	**MW-3**	EPA 300.0	IC/1484		
H10090646003	**MW-1**	EPA 300.0	IC/1484		

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

Sample Receipt Checklist

WorkOrder:	H10090646	Received By	LOG
Date and Time	09/25/2010 08:55	Carrier Name:	FEDEXP
Temperature:	2.0°C	Chilled By:	Water Ice

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

*VOA Preservation Checked After Sample Analysis

SPL Representative: Contact Date & Time:

Client Name Contacted:

Client Instructions:

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

Chain of Custody Record

H10090646

Client: Tetra Tech/ Conoco Phillips
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: Salegna 2E
P.O. Number:
Sampled By: Christine Matthews
Signature: Christine Matthews

SPL Workorder Number:

Sample ID	Collected: Date	Time	Sample Type: Comp	Grab	Matrix: Water	Soil	Bottle Type	Preservative Type	# of Containers	BTEX	Dissolved Mn	SO4,TDS	HOLDS
MW-3	9/23/10	0930		X	X		1	3	3	X			
MW-2	9/23/10	0930		X	X		6	1	1		X		
MW-2	9/23/10	0930		X	X		3	1	1			X	
~~MW-2~~ MW-3	9/23/10	0935		X	X		1	3	3	X			
~~MW-2~~ MW-3	9/23/10	0935		X	X		6	1	1		X		
~~MW-2~~ MW-3	9/23/10	0935		X	X		3	1	1			X	
~~MW-3~~ MW-1	9/23/10	0915		X	X		1	3	3	X			
~~MW-3~~ MW-1	9/23/10	0915		X	X		6	1	1		X		
~~MW-3~~ MW-1	9/23/10	0915		X	X		3	1	1			X	
Duplicate	9/23/10	0920		X	X		1	3	3	X			

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

Remarks: Please filter & preserve metals before analysis

Intact? (Y) or N
Temperature: 2.0c

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

	Date	Time	
Relinquished by Sampler: Christine Matthews	9/24/10	1300	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 9/25/10	Time 8:55	Received by SPL, Inc. Amanda Vicknair

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

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Chain of Custody Record

Client: Tetra Tech/ Conoco Phillips

SPL Workorder Number: H10090646

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: Salegna 2E

P.O. Number:

Sampled By/ Signature: Christine Mathews

Sample ID	Collected: Date	Time	Sample Type: Comp	Grab	Matrix: Water	Soil	Bottle Type	Preservative Type	# of Containers	REQUESTED ANALYSIS: BTEX	Dissolved Mn	SO4, TDS
Trip Blank	9/24/10	1230			X		1	3	2	X		

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

Remarks: Please filter & preserve metals before analysis

Intact? (Y) or N

Temperature: 2.0c

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

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

	Date	Time	
Relinquished by Sampler: Christine Mathews	9/24/10	1300	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by SPL, Inc.
	9/25/10	9:55	Amanda Vickers

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