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MARCH 2010 QUARTERLY GROUNDWATER MONITORING REPORT

CONOCOPHILLIPS COMPANY

EL PASO NO.1A
NATURAL GAS PRODUCTION SITE
SAN JUAN COUNTY, NEW MEXICO

API # 30-045-22778

Prepared for:

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June 2011

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QUARTERLY GROUNDWATER MONITORING REPORT CONOCOPHILLIPS COMPANY EL PASO NO.1A SAN JUAN COUNTY, NEW MEXICO

1.0 INTRODUCTION

This report details the results of quarterly groundwater monitoring completed by Tetra Tech, Inc. (Tetra Tech) on March 14, 2011 at the ConocoPhillips Company El Paso No. 1A site in San Juan County, New Mexico (Site). This sampling event represents the tenth quarter of groundwater monitoring conducted by Tetra Tech at the Site, nine of which include all four Site monitor wells.

The Site is located on BLM land east of Blanco, NM near the intersection of New Mexico Highway 64 and County Road 4450 in Section 20, Township 29 North, Range 9 West. The Site consists of the El Paso No. 1S and El Paso No. 1A natural gas production wellheads and includes all associated equipment and installations. A site location map is included as **Figure 1**, a site detail map is included as **Figure 2**, and a generalized geologic cross section is included as **Figure 3**.

1.1 Site History

The history of the Site is outlined in **Table 1**.

2.0 METHODOLOGY AND RESULTS

2.1 Groundwater Monitoring Methodology

Groundwater Elevation Measurements

On March 14, 2011 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 March 2011 monitoring event data, groundwater flow is to the southwest and consistent with historical records of this site. The San Juan River is approximately 1 mile from the site and flows west.

Groundwater sampling

Each monitor well was sampled after three well casing volumes had been purged; or until measured groundwater parameters including temperature, pH, conductivity, total dissolved solids (TDS), oxidation-reduction potential (ORP), and dissolved oxygen (DO) had stabilized. Parameters were collected using a YSI 556 multi-parameter sonde and were recorded on Tetra Tech Groundwater Sampling Field Forms (**Appendix A**).

Purged groundwater was disposed of in the Site produced water tank (**Figure 2**). A dedicated 1.5-inch polyethylene bailer was used to purge and collect groundwater samples. The samples were then placed in laboratory prepared bottles, packed on ice, and shipped with chain of custody documentation to Accutest Laboratories (Accutest) located in Houston, Texas. The samples were analyzed for presence of

benzene, toluene, ethylbenzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B, fluoride and sulfate by EPA Method E300.0, total dissolved solids (TDS) by EPA Method 2540C, and dissolved manganese by EPA Method 6010B.

2.3 Groundwater Sampling Analytical Results

Groundwater samples collected from Site monitoring wells during the March 2011 monitoring event were below the New Mexico Water Quality Control Commission (NMWQCC) standards for BTEX. Exceedances of NMWQCC standards were detected for the following constituents:

- **Fluoride**

  The NMWQCC groundwater quality standard for fluoride is 1.6 milligrams per liter (mg/L). Groundwater collected from MW-1 contained a fluoride concentration of 2.44 mg/L; groundwater collected from MW-2 contained a fluoride concentration of 2.1 mg/L; groundwater collected from MW-3 contained a fluoride concentration of 1.67 mg/L; while groundwater collected from MW-4 contained a fluoride concentration of 2.35 mg/L.

- **Sulfate**

  The NMWQCC groundwater quality standard for sulfate is 600 mg/L. Groundwater collected from Monitor Well MW-1 contained sulfate at 6,520 mg/L; groundwater collected from MW-2 contained sulfate at 12,200 mg/L; groundwater collected from MW-3 contained sulfate at 6,290 mg/L; and groundwater collected from MW-4 contained sulfate at 4,920 mg/L. The highest concentration of sulfate was found in groundwater collected from MW-2, the up-gradient monitoring well.

- **Manganese**

  The NMWQCC groundwater quality standard for dissolved manganese is 0.2 mg/L. Groundwater collected from Monitor Well MW-1 contained dissolved manganese at 1.19 mg/L, groundwater collected from MW-2 contained dissolved manganese at 1.82 mg/L, and groundwater collected from MW-3 contained dissolved manganese at 0.437 mg/L. Groundwater collected from MW-4 was found to contain dissolved manganese below the NMWQCC standard.

- **Total Dissolved Solids**

  The NMWQCC groundwater quality standard for total dissolved solids (TDS) is 1,000 mg/L. Groundwater collected from Monitor Well MW-1 contained TDS at 14,200 mg/L; groundwater collected from MW-2 contained a concentration of 18,500 mg/L; groundwater collected from MW-3 contained a concentration of 9,750 mg/L; and groundwater collected from MW-4 contained a concentration of 7,040 mg/L. The highest concentration of TDS was found in groundwater collected from MW-2, the up-gradient monitoring well.

Groundwater laboratory analytical results are summarized in **Table 3**. A NMWQCC standard exceedances map is presented as **Figure 5**. The laboratory analytical report for the March 2011 groundwater sampling event is included as **Appendix B**.

3.0 CONCLUSIONS

To date, groundwater samples collected from Site monitor wells have never exceeded NMWQCC groundwater quality standards for BTEX. Furthermore, BTEX concentrations have consistently been below the minimum laboratory detection limits in Monitor Wells MW-1, MW-2 and MW-4 since monitoring began. Monitoring Wells MW-1, MW-2, MW-3, and MW-4 were found to have concentrations exceeding the NMWQCC standard for fluoride, sulfate and total dissolved solids. Groundwater collected from Monitoring Wells MW-1, MW-2, and MW-3 were also found to exceed the NMWQCC standard for dissolved manganese. The concentrations of sulfate and TDS appear to come from an up-gradient location since MW-2 consistently contains the highest levels of these constituents. Fluoride concentrations appear to be stable.

Based on information obtained from the United States Geological Survey (USGS), specifically data from USGS Gauging Station 0935656 located approximately three miles up-gradient of the El Paso No. 1A site (**Figure 6**), historical analytical data shows elevated concentrations of sulfate, dissolved manganese and TDS above NMWQCC standards in the Canyon Largo area. A summary of the USGS historical analytical data has been included and summarized on **Table 4**. It is likely that the elevated concentrations of sulfate, manganese and TDS that have been reported in El Paso No. 1A site monitoring wells are associated with regional background levels of these constituents. In addition, the document *San Juan Hydrologic Unit Regional Water Plan Water Supply Assessment, Volume III,* groundwater in the vicinity of the El Paso No. 1A site is noted in figure 1-6 (**Appendix C**) as having levels of TDS above 1,200 mg/L (San Juan Water Commission, 2003).

Since BTEX is below standards in all four monitoring wells, and the other constituents of concern that are above NMWQCC standards appear to be coming from up-gradient of the site, are at background levels, or are stable; Tetra Tech recommends the discontinuation of quarterly groundwater monitoring and requests no further action status be granted for the Site. The same request was made in the December 2010 Quarterly groundwater Monitoring Report dated April 13, 2011. Groundwater sampling activities have ceased at the site. Plugging and abandonment of site monitor wells will be pursued once the NMOCD has responded to this request for no further action. Please contact Kelly Blanchard at 505-237-8440 or kelly.blanchard@tetratech.com if you have any questions or require additional information.

References

San Juan Water Commission, September 2003. San Juan Hydrologic Unit Regional Water Plan, Water Supply Assessment, Volume III.

FIGURES

1. Site Location Map
2. Site Layout Map
3. Generalized Geologic Cross Section
4. Groundwater Elevation Contour Map (March 2011)
5. Groundwater Quality Standard Exceedences Concentration Map
6. USGS Gauging Station Location Map

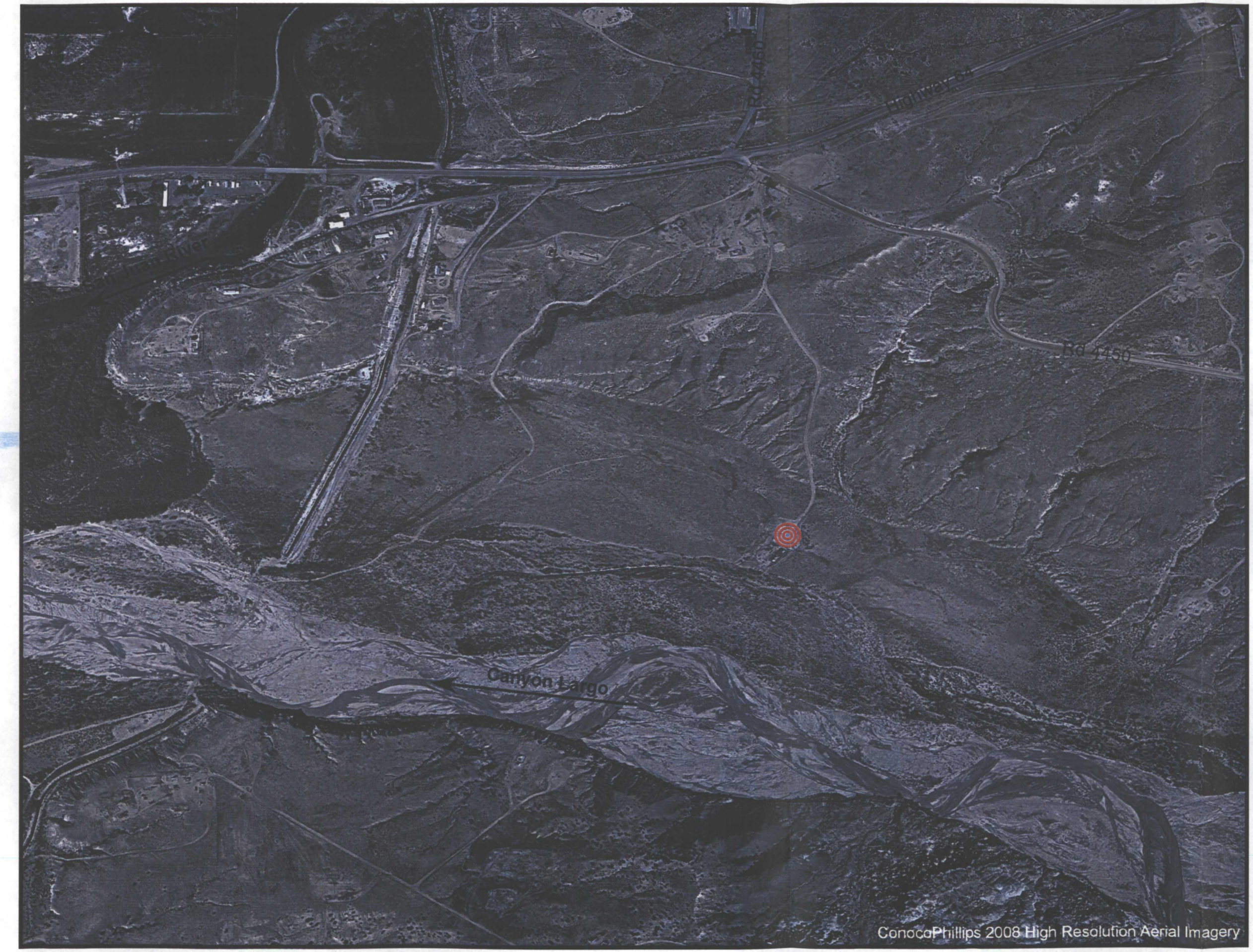
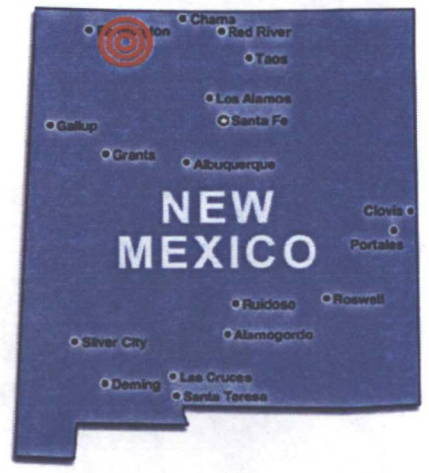


FIGURE 1.

Site Location Map
ConocoPhillips
Company
El Paso 1A
San Juan County, NM



Approximate ConocoPhillips El Paso 1A Site location

Lat = 36.716599
Lon = -107.804353

N

0 490 980
FEET

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FIGURE 2:
SITE LAYOUT MAP
CONOCOPHILLIPS COMPANY
EL PASO NO. 1A
Sec 20, Twp 29N, Rng 09W
San Juan County, New Mexico

LEGEND

- WELLHEAD
- MONITOR WELL
- GENERAL SITE BOUNDARY
- BERM
- EQUIPMENT

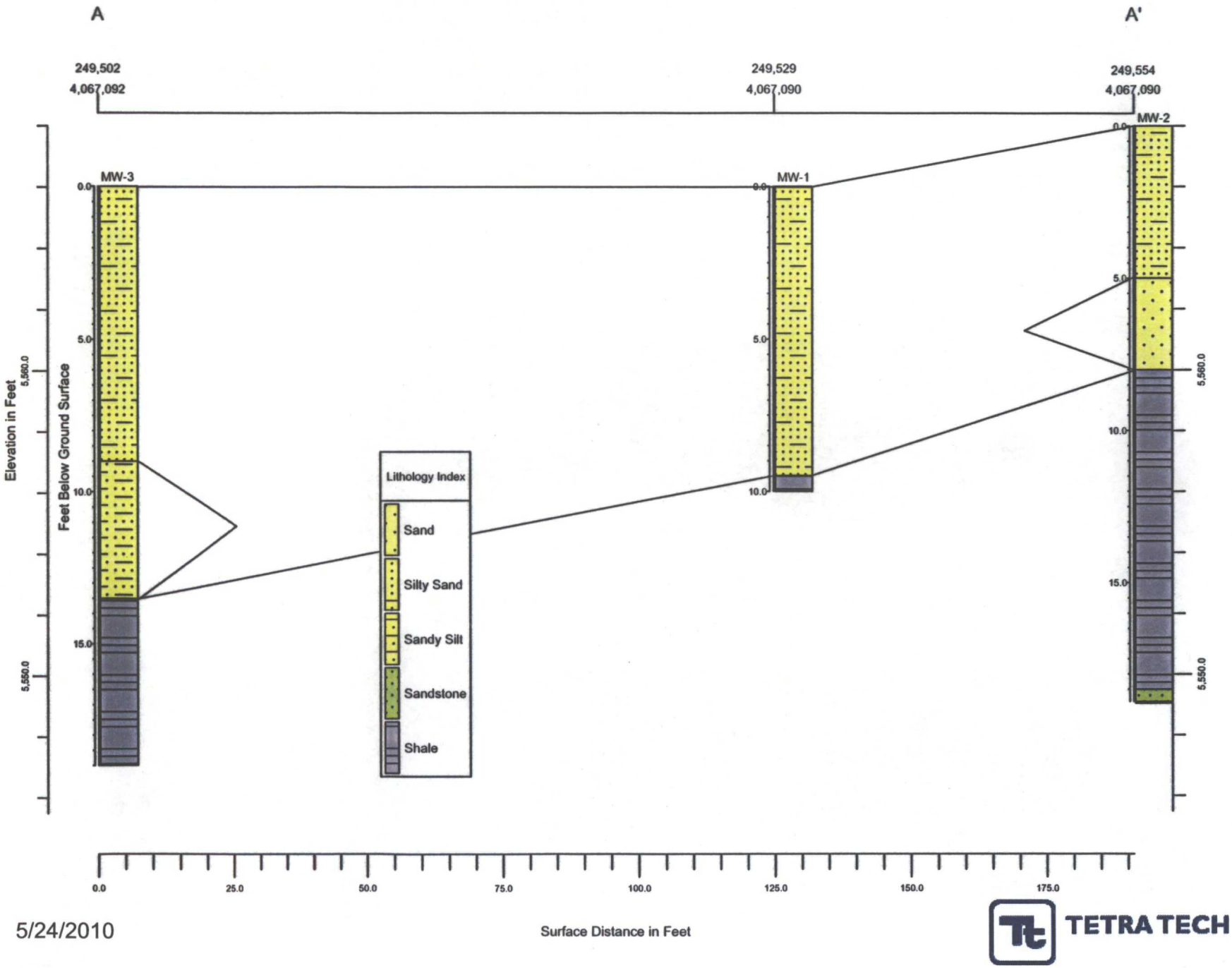
N

0 45 90
FEET

TETRA TECH, INC.

Figure 3

El Paso No. 1A - Cross-Section A-A'



5/24/2010

TETRA TECH

FIGURE 4:
GROUNDWATER ELEVATION MAP
MARCH 2011
CONOCOPHILLIPS COMPANY
EL PASO NO. 1A
Sec 20, Twp 29N, Rng 09W
San Juan County, New Mexico

LEGEND

- EL PASO 1A WELLHEAD
- EL PASO 1S WELLHEAD
- MONITOR WELL
- BERM
- EQUIPMENT
- GROUNDWATER ELEVATION LINE (FEET)
- GENERAL SITE BOUNDARY

TETRA TECH, INC.

FIGURE 5:
GROUNDWATER QUALITY STANDARD EXCEEDENCES CONCENTRATION MAP
MARCH 2010
CONOCOPHILLIPS COMPANY
EL PASO NO. 1A
Sec 20, Twp 29N, Rng 09W
San Juan County, New Mexico

LEGEND

- WELLHEAD
- MONITOR WELL
- BERM
- EQUIPMENT
- GENERAL SITE BOUNDARY

N

0 45 90
FEET

TETRA TECH, INC.

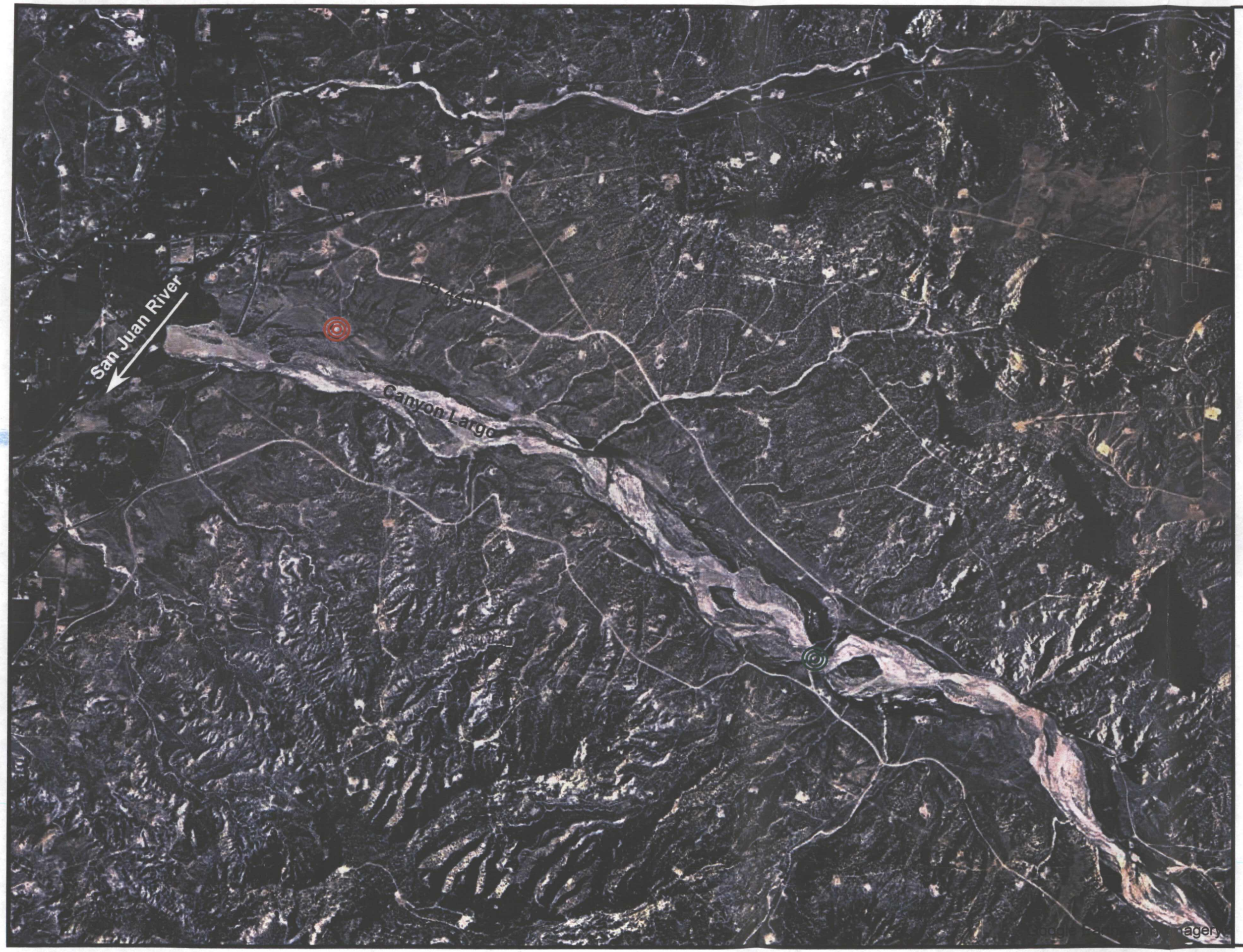
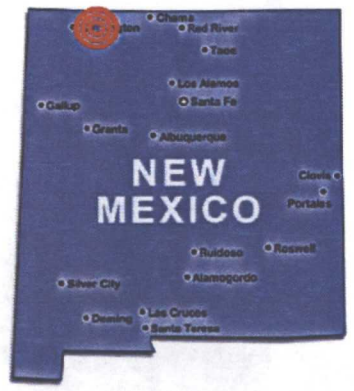


FIGURE 6.

USGS Gauging Station
Location Map
ConocoPhillips Company
El Paso 1A
San Juan County, NM



Approximate ConocoPhillips El Paso 1A Site location

Approximate USGS Gauging Station 0935656 Location, Canyon Largo, NR Blanco, NM

N

0 0.5
Mile

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TABLES

Table 1. Site History Timeline - ConocoPhillips Company El Paso No. 1A

DATE	ACTIVITY
5-Jan-78	Well spudded by El Paso Natural Gas Co.
1-Nov-86	Meridian Oil, Inc. becomes the operator under El Paso Production Company
31-Dec-00	Operator name change from Burlington Resources Oil and Gas Company to Burlington Resources Oil and Gas Company LP.
31-Mar-06	ConocoPhillips Company completed the aquistion of Burlington Resources.
Feb-07	Hydrocarbon-impacted soils discovered during trench work being conducted for a new flowline. Original source of contamination is unknown.
Feb-07	Contaminated soil excavated from the Site. Soil samples collected and analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) were below NMOCD regulations.
21-Sep-07	Groundwater monitoring well installed to a depth of ten (10) 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.
21-Sep-07	A ground water sample was collected from the temporary monitoring well and analyzed for BTEX; results were below the State of New Mexico drinking water standard for this constituent.
27-Sep-07	Depth to groundwater measured at seven (7) feet bgs.
Sep-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.
25-Oct-08	1st quarter sampling of MW-1 by Tetra Tech.
Jan-09	Attempt to install additional monitoring wells; roads inaccessible by drill rig due to winter weather conditions.
3 and 4-March-09	Monitoring wells MW-2, MW-3, MW-4 installed and developed by WDC overseen by Tetra Tech. Soil samples were collected from MW-3 and MW-2 boring locations.
2-Apr-09	First quarter of sampling to include all 4 monitoring wells. A baseline suite was collected for MW-1, MW-2, MW-3 and MW-4. BTEX constituents under NMWQCC standards in all site monitor wells.
18-Jun-09	2nd quarter of groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4. Second consecutive quarter of BTEX constituents being under NMWQCC standards in all site monitor wells.
29-Sep-09	3rd quarter of groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4. Samples collected for dissolved metals exceeding standards that were previously run by the total metals test method; Al, Mn, Fe. Dissolved manganese was found in concentrations above NMWQCC standard. Third consecutive quarter of BTEX constituents being under NMWQCC standards in all site monitor wells.
15-Dec-09	4th quarter groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4. Analytical results for fluoride are inconclusive. Fourth consecutive quarter of BTEX constituents being under NMWQCC standards in all site monitor wells.
28-Apr-10	5th quarter groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4. Fifth consecutive quarter of BTEX constituents being under NMWQCC standards in all site monitor wells.
8-Jun-10	6th quarter groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4. Sixth consecutive quarter of BTEX constituents being under NMWQCC standards in all site monitor wells.
23-Sep-10	7th quarter groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4. Seventh consecutive quarter of BTEX constituents being under NMWQCC standards in all site monitor wells.
15-Dec-10	8th quarter groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4. Eighth consecutive quarter of BTEX constituents being under NMWQCC standards in all site monitor wells.
14-Mar-11	9th quarter groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4. Ninth consecutive quarter of BTEX constituents being under NMWQCC standards in all site monitor wells.
13-Apr-11	Results of the Decebmer 2010 groundwater sampling event were reported to the NMOCD with a request for remediation project closure and No Further Action status.

Table 2. Groundwater Elevation Data Summary - ConocoPhillips Company El Paso No. 1A

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	13.55	4.75-9.75	99.52	9/21/2007	7.00	92.52
				10/25/2008	10.92	88.60
				1/30/2009	NM	NM
				4/2/2009	10.33	89.19
				6/18/2009	10.65	88.87
				9/29/2009	10.96	88.56
				12/15/2009	10.99	88.53
				4/28/2010	10.53	88.99
				6/8/2010	10.48	89.04
				9/23/2010	10.47	89.05
				12/15/2010	10.36	89.16
				3/14/2011	10.32	89.20
MW-2	20.75	3-17.9	98.72	4/2/2009	8.49	90.23
				6/18/2009	8.71	90.01
				9/29/2009	8.70	90.02
				12/15/2009	8.75	89.97
				4/28/2010	8.38	90.34
				6/8/2010	8.30	90.42
				9/23/2010	8.39	90.33
				12/15/2010	8.34	90.38
				3/14/2011	8.29	90.43
MW-3	21.15	3.1-18.1	98.175	4/2/2009	9.71	88.47
				6/18/2009	9.75	88.43
				9/29/2009	10.10	88.08
				12/15/2009	10.07	88.11
				4/28/2010	9.66	88.52
				6/8/2010	9.62	88.56
				9/23/2010	9.59	88.59
				12/15/2010	9.48	88.70
				3/14/2011	9.44	88.74
MW-4	20.83	2.9-17.9	98.28	4/2/2009	9.74	88.54
				6/18/2009	9.78	88.50
				9/29/2009	10.04	88.24
				12/15/2009	10.06	88.22
				4/28/2010	9.70	88.58
				6/8/2010	9.61	88.67
				9/23/2010	9.45	88.83
				12/15/2010	9.41	88.87
				3/14/2011	9.43	88.85

ft = Feet

TOC = Top of casing

bgs = below ground surface

* Elevation relative to wellhead, set at an arbitrary elevation of 100 feet above mean sea level

NM = Not Measured

Table 3. Groundwater Laboratory Analytical Results Summary - ConocoPhillips Company El Paso No. 1A

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Fluoride (mg/L)	Sulfate (mg/L)	Aluminum (mg/L)	Iron (mg/L)	Manganese (mg/L)	Total Dissolved Solids (mg/L)
MW-1	9/21/2007	1.4	0.5	<0.2	0.3	NS	NS	NS	NS	NS	NA
	10/25/2008	<0.5	<0.5	<0.5	<0.5	<2	6400	NS	26*	5.49*	NA
	4/2/2009	<0.5	<0.5	<0.5	<0.5	1.92	7580	2.21*	29.6*	3.14*	10000
	6/18/2009	<5	<5	<5	<5	2.04	7970	2.1*	7.66*	3.06*	NA
	9/29/2009	<1	<1	<1	<1	1.56	8030	<0.1	0.0237	1.42	10600
	12/15/2009	<1	<1	<1	<1	<50	10100	NA	NA	1.68	10400
	4/28/2010	<1	<1	<1	<1	2.14	8100	NA	NA	2.37	10300
	6/8/2010	<1	<1	<1	<1	< 5.0	6690	NA	NA	2.17	10600
	9/23/2010	<1	<1	<1	<1	2.46	7080	NA	NA	1.8	10400
	12/15/2010	<1	<1	<1	<1	2.02	7140	NA	NA	1.36	9980
	3/14/2011	<1	<1	<1	<1	2.44	6520	NA	NA	1.19	14200
MW-2	4/2/2009	<0.5	<0.5	<0.5	<0.5	<0.5	15900	0.705*	0.751*	1.16*	22500
	6/18/2009	<5	<5	<5	<5	0.67	17000	1.49*	1.23*	1.92*	NA
	9/29/2009	<1	<1	<1	<1	<0.5	29800	<0.1	<0.02	2.03	31800
	12/15/2009	<1	<1	<1	<1	<100	22100	NA	NA	1.54	25100
	4/28/2010	<1	<1	<1	<1	2.18	8350	NA	NA	0.941	12300
	6/8/2010	<1	<1	<1	<1	< 5.0	12200	NA	NA	1.38	19000
	9/23/2010	<1	<1	<1	<1	2.09	12400	NA	NA	1.74	19500
	12/15/2010	<1	<1	<1	<1	< 0.5	14500	NA	NA	1.34	20300
	3/14/2011	<1	<1	<1	<1	2.1	12200	NA	NA	1.82	18500
MW-3	4/2/2009	<0.5	<0.5	52	362	1.68	4090	5.47*	9.31*	0.788*	7530
	6/18/2009	<5	<5	15	87	1.68	5750	3.75*	5.3*	0.454*	NA
	9/29/2009	<1	<1	2.7	20	1.47	6890	0.224	0.14	0.432	8630
	12/15/2009	<1	<1	3	24	<50	7490	NA	NA	0.583	9230
	4/28/2010	2	<1	15	124	1.53	5680	NA	NA	0.519	6610
	6/8/2010	<1	<1	5.4	45.7	< 5.0	4740	NA	NA	0.409	6620
	9/23/2010	<1	<1	1.3	10.5	2.52	4490	NA	NA	0.385	12600
	12/15/2010	<1	<1	< 1.0	3.7	1.56	6950	NA	NA	0.423	9480
	3/14/2011	<1	<1	< 1	2.5	1.67	6290	NA	NA	0.437	9750
MW-4	4/2/2009	<0.5	<0.5	<0.5	<0.5	2.42	4750	2.1*	2.12*	0.396*	6660
	6/18/2009	<5	<5	<5	<5	2.25	5300	5.52*	6.91*	0.333*	NA
	9/29/2009	<1	<1	<1	<1	2.26	5340	0.943	0.393	0.134	6760
	12/15/2009	<1	<1	<1	<1	<50	5660	NA	NA	0.201	6500
	4/28/2010	<1	<1	<1	<1	2.38	4820	NA	NA	0.198	8320
	6/8/2010	<1	<1	<1	<1	2.78	3910	NA	NA	0.177	3380
	9/23/2010	<1	<1	<1	<1	1.8	6200	NA	NA	0.157	8600
	12/15/2010	<1	<1	<1	<1	2.37	4870	NA	NA	0.143	4380
	3/14/2011	<1	<1	<1	<1	2.35	4920	NA	NA	0.185	7040
NMWQCC Standards		10 (µg/L)	750 (µg/L)	750 (µg/L)	620 (µg/L)	1.6 (mg/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[(1)] = Not analyzed due to laboratory error
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 can not be compared to NMWQCC Standards for dissolved metals

Table 4. USGS Gauging Station 0935656, Canyon Largo NR Blanco, NM - Historical Water Quality Analytical Data Summary

Sample Date and Time (MST)	Sulfate (Filtered) mg/L	Fluoride (Filtered) mg/L	Dissolved Solids (Filtered) mg/L	Dissolved Solids Sum of Constituents mg/L
1979-10-31 13:45	**5800**	1.60	**8920**	**8640**
1979-11-08 12:30	**6000**	1.20	**10200**	**9410**
1979-12-03 11:30	**4800**	1.60	**8890**	**7480**
1980-01-04 13:00	**3600**	1.40	**6990**	**5840**
1980-02-05 11:30	**4000**	1.20	**6670**	**6200**
1980-03-03 12:30	390	0.90	729	643
1980-04-04 11:30	**4400**	1.40	**7540**	**6750**
NMWQCC Standards	**600 (mg/L)**	**1.6 (mg/L)**	**1000 (mg/L)**	**1000 (mg/L)**

Sample Date and Time (MST)	Manganese (Filtered) mg/L
9/14/1958 15:00	0
5/2/1978 14:30	0.02
7/19/1979 12:00	< 0.010
8/15/1979 10:15	< 0.010
1/13/1981 9:35	0.18
3/3/1981 15:45	**0.41**
7/1/1981 20:00	**1.9**
7/1/1981 20:15	**4.4**
7/2/1981 15:00	0
7/15/1981 7:00	**2.7**
7/26/1981 20:15	**3.5**
9/9/1981 10:15	< 0.001
NMWQCC Standards	**0.2 (mg/L)**

Notes:
NMWQCC = New Mexico Water Quality Control Commission
mg/L = milligrams per liter (parts per million)
Bold = concentrations that exceed the NMWQCC Standards

All data was obtained from the United States Geological Survey, National Water Information System, at http://waterdata.usgs.gov/nwis/qwdata. All available data points were included in the historical summary.

APPENDIX A

MARCH 2011 GROUNDWATER SAMPLING FIELD FORMS

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name El Paso 1A — Page 1 of 4

act No.

Site Location Blanco, NM

Site/Well No. MW-1 — Coded/ Replicate No. 1635 — Date 3.14.11

Weather Sunny, ~~80~~ warm 70° — Time Sampling Began 1620 — Time Sampling Completed 1630

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface — MP Elevation 99.52

Total Sounded Depth of Well Below MP 13.58 — Water-Level Elevation

Hold ____ Depth to Water Below MP 10.32 — Diameter of Casing 2"

Wet ____ Water Column in Well 3.26 — Gallons Pumped/Bailed Prior to Sampling pumped/bailed 2.5 gal.

Gallons per Foot 0.16

Gallons in Well .5216 X3 = 1.565 — 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.)
1625 ~~7.75~~	9.69	8.44	7910	~~3.90~~ 7.246	3.90	35.0	-105.6	1.75
1627	9.70	8.37	7919	7.272	2.87	26.2	-130.1	2.25
1628	9.70	8.38	7920	7.272	2.00	18.2	-138.9	2.50

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Mn	plastic	none
Flouride, Sulfate, TDS	plastic	none

Remarks H_2O is dark brown-black. w sulfur odor, no 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

TETRATECH, INC.

WATER SAMPLING FIELD FORM

Project Name El Paso 1A — Page 2 of 4

Act No.

Site Location Blanco, NM

Site/Well No. MW-2 — Coded/ Replicate No. — Date 3-14-11

Weather Sunny, warm 70° — Time Sampling Began 1645 — Time Sampling Completed 1700

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface — MP Elevation 98.72

Total Sounded Depth of Well Below MP ~~20.75~~ 20.67 — Water-Level Elevation

Held — Depth to Water Below MP 8.29 — Diameter of Casing 2"

Wet — Water Column in Well 12.38 — Gallons Pumped/Bailed Prior to Sampling pumped/bailed 6.0

Gallons per Foot 0.16

Gallons in Well 1.981 X 3 = 5.94 — 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.)
1656	11.00	8.20	9499	8.392	2.01	18.9	-151.8	5.0
1657	11.12	8.18	9828	8.779	1.65	15.6	-153.9	5.5
1658	11.33	8.14	10986	9.721	1.47	14.2	-153.4	6.6

Sampling Equipment — Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved Mn	plastic	none
Flouride, Sulfate, TDS	plastic	none

Remarks H2O is clear, sulfur odor observed, no 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 El Paso 1A — Page 3 of 4

ect No.

Site Location Blanco, NM

Site/Well No. MW-3 — Coded/ Replicate No. — Date 3.14.11

Weather Sunny, warm 70° — Time Sampling Began 1610 — Time Sampling Completed 1625

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface — MP Elevation 88.175

Total Sounded Depth of Well Below MP ~~21.11~~ 21.00 — Water-Level Elevation

Held ____ Depth to Water Below MP 9.44 — Diameter of Casing 2"

Wet ____ Water Column in Well 11.56 — Gallons Pumped/Bailed Prior to Sampling pumped/bailed

Gallons per Foot 0.16

Gallons in Well 1.84 96 — Sampling Pump Intake Setting (feet below land surface) 5.75

Purging Equipment Purge pump / Bailer — X3 = 5.55

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
~~1618~~	10.70	8.62	7897	7.068	2.28	21.1	-196.5	4.75
1620	10.25	8.65	7847	7.102	2.32	21.6	-169.8	5.25
1622	10.13	8.68	7843	7.119	2.16	19.9	-172.5	5.75

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved mn	plastic	none
Flouride, Sulfate	plastic	none

Remarks H_2O is black with slight bio odor

Sampling Personnel Cassie Brown, Christine Mathews

Well Casing Volumes

Gal./ft.	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½" = 0.10	2½" = 0.24	3"½ = 0.50	6" = 1.46

TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name El Paso 1A — Page 4 of 4

Project No.

Site Location Blanco, NM

Site/Well No. MW-4 — Coded/ Replicate No. — Date 3.14.11

Weather Sunny, warm 70° — Time Sampling Began 1610 — Time Sampling Completed 1645

EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface — MP Elevation 98.28

Total Sounded Depth of Well Below MP ~~20.86~~ 20.54 — Water-Level Elevation

Held ____ Depth to Water Below MP 9.43 — Diameter of Casing 2"

Wet ____ Water Column in Well 11.11 — Gallons Pumped/Bailed Prior to Sampling pumped/bailed 5.5

Gallons per Foot 0.16

Gallons in Well 1.777 — Sampling Pump Intake Setting (feet below land surface)

Purging Equipment Purge pump / Bailer — X3 = 5.333

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1639	11.21	8.55	6230	5.496	3.93	36.7		4.75
1640	11.46	8.54	6263	5.488	3.63	33.9	-96.4	5.0
1642	11.18	8.53	6216	5.488	3.62	33.9	-91.8	5.5

Sampling Equipment Purge Pump/Bailer

Constituents Sampled	Container Description	Preservative
BTEX	3 40mL VOA's	HCl
Dissolved mn	plastic	none
Flouride, Sulfate	plastic	none

Remarks H2O is light gray & cloudy no odor or sheen detected

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

APPENDIX B

MARCH 2011 GROUNDWATER LABORATORY ANALYTICAL REPORT

ACCUTEST LABORATORIES

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

Conoco Phillips

Certificate of Analysis Number:

11030373

Report To:		Project Name:	COP ElPaso1A
Tetra Tech, Inc.		Site:	Blanco, NM
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	3/22/2011
ph (505) 237-8440	fax: (505) 881-3283		

This Report Contains A Total Of 18 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

3/22/2011

Date

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

Version 2.1 - Modified February 11, 2011

ACCUTEST LABORATORIES

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

Case Narrative for:
Conoco Phillips

Certificate of Analysis Number:
11030373

Report To:		Project Name:	COP ElPaso1A
Tetra Tech, Inc.		Site:	Blanco, NM
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	3/22/2011
ph (505) 237-8440	fax: (505) 881-3283		

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.

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.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

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

3/22/2011

Erica Cardenas
Project Manager

Date

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

ACCUTEST LABORATORIES

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

Case Narrative for:

Conoco Phillips

Certificate of Analysis Number:

11030373

his designee, as verified by the following signature.

3/22/2011

Erica Cardenas
Project Manager

Date

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

ACCUTEST®
LABORATORIES

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

Conoco Phillips

Certificate of Analysis Number:

11030373

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

Fax To:

Project Name: COP ElPaso1A
Site: Blanco, NM
Site Address:
PO Number:
State: New Mexico
State Cert. No.:
Date Reported: 3/22/2011

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-1	11030373-01	Water	03/14/2011 16:30	3/16/2011 9:10:00 AM	297388	☐
MW-2	11030373-02	Water	03/14/2011 17:00	3/16/2011 9:10:00 AM	297388	☐
MW-3	11030373-03	Water	03/14/2011 16:25	3/16/2011 9:10:00 AM	297388	☐
MW-4	11030373-04	Water	03/14/2011 16:45	3/16/2011 9:10:00 AM	297388	☐
MW-4	11030373-04	Water	03/14/2011 16:45	3/16/2011 9:10:00 AM	302624	☐
Duplicate	11030373-05	Water	03/14/2011 16:35	3/16/2011 9:10:00 AM	302624	☐
Trip Blank	11030373-06	Water	03/14/2011 22:00	3/16/2011 9:10:00 AM	302624	☐

E Cardenas

3/22/2011

Erica Cardenas
Project Manager

Date

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

Ted Yen
Quality Assurance Officer

ACCUTEST LABORATORIES

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

Client Sample ID MW-1 **Collected:** 03/14/2011 16:30 **SPL Sample ID:** 11030373-01

Site: Blanco, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ION CHROMATOGRAPHY				**MCL**	**E300.0**	**Units: mg/L**	
Fluoride	2.44		0.5	1	03/17/11 15:14	ESK	5746662
Sulfate	6520		500	1000	03/17/11 17:24	ESK	5746670
METALS BY METHOD 6010B, DISSOLVED				**MCL**	**SW6010B**	**Units: mg/L**	
Manganese	1.19		0.005	1	03/18/11 15:25	R_V	5747856

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/16/2011 11:45	M_W	1.00

TOTAL DISSOLVED SOLIDS				**MCL**	**SM2540 C**	**Units: mg/L**	
Total Dissolved Solids (Residue,Filterable)	14200		100	10	03/16/11 14:30	MM1	5745719
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**	**Units: ug/L**	
Benzene	ND		1	1	03/16/11 16:57	JC	5745218
Ethylbenzene	ND		1	1	03/16/11 16:57	JC	5745218
Toluene	ND		1	1	03/16/11 16:57	JC	5745218
m,p-Xylene	ND		2	1	03/16/11 16:57	JC	5745218
o-Xylene	ND		1	1	03/16/11 16:57	JC	5745218
Xylenes,Total	ND		1	1	03/16/11 16:57	JC	5745218
Surr: 1,2-Dichloroethane-d4	94.1	%	70-130	1	03/16/11 16:57	JC	5745218
Surr: 4-Bromofluorobenzene	89.0	%	74-125	1	03/16/11 16:57	JC	5745218
Surr: Toluene-d8	95.5	%	82-118	1	03/16/11 16:57	JC	5745218

Qualifiers:

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

ACCUTEST LABORATORIES

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

Client Sample ID MW-2 **Collected:** 03/14/2011 17:00 **SPL Sample ID:** 11030373-02

Site: Blanco, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ION CHROMATOGRAPHY				**MCL**	**E300.0**	**Units: mg/L**	
Fluoride	2.1		0.5	1	03/17/11 16:03	ESK	5746665
Sulfate	12200		1000	2000	03/17/11 17:40	ESK	5746671
METALS BY METHOD 6010B, DISSOLVED				**MCL**	**SW6010B**	**Units: mg/L**	
Manganese	1.82		0.005	1	03/18/11 15:31	R_V	5747857

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/16/2011 11:45	M_W	1.00

TOTAL DISSOLVED SOLIDS				**MCL**	**SM2540 C**	**Units: mg/L**	
Total Dissolved Solids (Residue,Filterable)	18500		100	10	03/16/11 14:30	MM1	5745721
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**	**Units: ug/L**	
Benzene	ND		1	1	03/16/11 17:26	JC	5745219
Ethylbenzene	ND		1	1	03/16/11 17:26	JC	5745219
Toluene	ND		1	1	03/16/11 17:26	JC	5745219
m,p-Xylene	ND		2	1	03/16/11 17:26	JC	5745219
o-Xylene	ND		1	1	03/16/11 17:26	JC	5745219
Xylenes,Total	ND		1	1	03/16/11 17:26	JC	5745219
Surr: 1,2-Dichloroethane-d4	95.7	%	70-130	1	03/16/11 17:26	JC	5745219
Surr: 4-Bromofluorobenzene	90.5	%	74-125	1	03/16/11 17:26	JC	5745219
Surr: Toluene-d8	98.6	%	82-118	1	03/16/11 17:26	JC	5745219

Qualifiers:

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

ACCUTEST LABORATORIES

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

Client Sample ID MW-3 **Collected:** 03/14/2011 16:25 **SPL Sample ID:** 11030373-03

Site: Blanco, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ION CHROMATOGRAPHY				**MCL**	**E300.0**	**Units: mg/L**	
Fluoride	1.67		0.5	1	03/17/11 16:19	ESK	5746666
Sulfate	6290		500	1000	03/17/11 17:56	ESK	5746672
METALS BY METHOD 6010B, DISSOLVED				**MCL**	**SW6010B**	**Units: mg/L**	
Manganese	0.437		0.005	1	03/18/11 15:37	R_V	5747858

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/16/2011 11:45	M_W	1.00

TOTAL DISSOLVED SOLIDS				**MCL**	**SM2540 C**	**Units: mg/L**	
Total Dissolved Solids (Residue,Filterable)	9750		50	5	03/16/11 14:30	MM1	5745722
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**	**Units: ug/L**	
Benzene	ND		1	1	03/16/11 17:55	JC	5745220
Ethylbenzene	ND		1	1	03/16/11 17:55	JC	5745220
Toluene	ND		1	1	03/16/11 17:55	JC	5745220
m,p-Xylene	2.5		2	1	03/16/11 17:55	JC	5745220
o-Xylene	ND		1	1	03/16/11 17:55	JC	5745220
Xylenes,Total	2.5		1	1	03/16/11 17:55	JC	5745220
Surr: 1,2-Dichloroethane-d4	89.2	%	70-130	1	03/16/11 17:55	JC	5745220
Surr: 4-Bromofluorobenzene	96.6	%	74-125	1	03/16/11 17:55	JC	5745220
Surr: Toluene-d8	99.5	%	82-118	1	03/16/11 17:55	JC	5745220

Qualifiers:

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

ACCUTEST LABORATORIES

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

Client Sample ID MW-4 **Collected:** 03/14/2011 16:45 **SPL Sample ID:** 11030373-04

Site: Blanco, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ION CHROMATOGRAPHY				**MCL**	**E300.0**	**Units: mg/L**	
Fluoride	2.35		0.5	1	03/17/11 16:35	ESK	5746667
Sulfate	4920		1000	2000	03/17/11 18:12	ESK	5746673
METALS BY METHOD 6010B, DISSOLVED				**MCL**	**SW6010B**	**Units: mg/L**	
Manganese	0.185		0.005	1	03/18/11 15:43	R_V	5747859

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/16/2011 11:45	M_W	1.00

TOTAL DISSOLVED SOLIDS				**MCL**	**SM2540 C**	**Units: mg/L**	
Total Dissolved Solids (Residue,Filterable)	7040		40	4	03/16/11 14:30	MM1	5745723
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**	**Units: ug/L**	
Benzene	ND		1	1	03/16/11 18:24	JC	5745221
Ethylbenzene	ND		1	1	03/16/11 18:24	JC	5745221
Toluene	ND		1	1	03/16/11 18:24	JC	5745221
m,p-Xylene	ND		2	1	03/16/11 18:24	JC	5745221
o-Xylene	ND		1	1	03/16/11 18:24	JC	5745221
Xylenes,Total	ND		1	1	03/16/11 18:24	JC	5745221
Surr: 1,2-Dichloroethane-d4	93.4		% 70-130	1	03/16/11 18:24	JC	5745221
Surr: 4-Bromofluorobenzene	90.5		% 74-125	1	03/16/11 18:24	JC	5745221
Surr: Toluene-d8	98.9		% 82-118	1	03/16/11 18:24	JC	5745221

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

ACCUTEST LABORATORIES

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

Client Sample ID Duplicate | **Collected:** 03/14/2011 16:35 | **SPL Sample ID:** 11030373-05

Site: Blanco, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		1	1	03/16/11 18:53	JC	5745222
Ethylbenzene	ND		1	1	03/16/11 18:53	JC	5745222
Toluene	ND		1	1	03/16/11 18:53	JC	5745222
m,p-Xylene	ND		2	1	03/16/11 18:53	JC	5745222
o-Xylene	ND		1	1	03/16/11 18:53	JC	5745222
Xylenes,Total	ND		1	1	03/16/11 18:53	JC	5745222
Surr: 1,2-Dichloroethane-d4	94.4		% 70-130	1	03/16/11 18:53	JC	5745222
Surr: 4-Bromofluorobenzene	91.8		% 74-125	1	03/16/11 18:53	JC	5745222
Surr: Toluene-d8	97.9		% 82-118	1	03/16/11 18:53	JC	5745222

Qualifiers:

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

ACCUTEST LABORATORIES

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

Client Sample ID Trip Blank | **Collected:** 03/14/2011 22:00 | **SPL Sample ID:** 11030373-06

Site: Blanco, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		1	1	03/16/11 19:22	JC	5745223
Ethylbenzene	ND		1	1	03/16/11 19:22	JC	5745223
Toluene	ND		1	1	03/16/11 19:22	JC	5745223
m,p-Xylene	ND		2	1	03/16/11 19:22	JC	5745223
o-Xylene	ND		1	1	03/16/11 19:22	JC	5745223
Xylenes,Total	ND		1	1	03/16/11 19:22	JC	5745223
Surr: 1,2-Dichloroethane-d4	88.3		% 70-130	1	03/16/11 19:22	JC	5745223
Surr: 4-Bromofluorobenzene	90.6		% 74-125	1	03/16/11 19:22	JC	5745223
Surr: Toluene-d8	97.1		% 82-118	1	03/16/11 19:22	JC	5745223

Qualifiers:

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

Quality Control Documentation

ACCUTEST LABORATORIES

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

Quality Control Report

Conoco Phillips

COP ElPaso1A

Analysis: Metals by Method 6010B, Dissolved
Method: SW6010B
WorkOrder: 11030373
Lab Batch ID: 105503

Method Blank

RunID: ICP2_110318A-5747845 Units: mg/L
Analysis Date: 03/18/2011 14:12 Analyst: R_V
Preparation Date: 03/16/2011 11:45 Prep By: M_ Method SW3005A

Analyte	Result	Rep Limit
Manganese	ND	0.005

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030373-01B	MW-1
11030373-02B	MW-2
11030373-03B	MW-3
11030373-04B	MW-4

Laboratory Control Sample (LCS)

RunID: ICP2_110318A-5747846 Units: mg/L
Analysis Date: 03/18/2011 14:18 Analyst: R_V
Preparation Date: 03/16/2011 11:45 Prep By: M_ Method SW3005A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Manganese	0.1000	0.1015	101.5	80	120

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

Sample Spiked: 11030370-02
RunID: ICP2_110318A-5747848 Units: mg/L
Analysis Date: 03/18/2011 14:30 Analyst: R_V
Preparation Date: 03/16/2011 11:45 Prep By: M_ Method SW3005A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Manganese	0.06240	0.1	0.1626	100.2	0.1	0.1620	99.60	0.3697	20	75	125

Qualifiers:

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

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/22/2011 12:39:31 PM

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

Quality Control Report

Conoco Phillips

COP ElPaso1A

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 11030373
Method: SW8260B **Lab Batch ID:** R317150

Method Blank

RunID: Q_110316B-5745214 Units: ug/L
Analysis Date: 03/16/2011 13:05 Analyst: JC

Analyte	Result	Rep Limit
Benzene	ND	1.0
Ethylbenzene	ND	1.0
Toluene	ND	1.0
m,p-Xylene	ND	2.0
o-Xylene	ND	1.0
Xylenes,Total	ND	1.0
Surr: 1,2-Dichloroethane-d4	91.1	70-130
Surr: 4-Bromofluorobenzene	89.4	74-125
Surr: Toluene-d8	96.5	82-118

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030373-01C	MW-1
11030373-02C	MW-2
11030373-03C	MW-3
11030373-04C	MW-4
11030373-05C	Duplicate
11030373-06C	Trip Blank

Laboratory Control Sample (LCS)

RunID: Q_110316B-5745213 Units: ug/L
Analysis Date: 03/16/2011 12:36 Analyst: JC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	20.0	18.8	94.2	74	123
Ethylbenzene	20.0	20.6	103	72	127
Toluene	20.0	20.4	102	74	126
m,p-Xylene	40.0	41.4	104	71	129
o-Xylene	20.0	20.3	102	74	130
Xylenes,Total	60.0	61.7	103	71	130
Surr: 1,2-Dichloroethane-d4	50.0	42.3	84.5	70	130
Surr: 4-Bromofluorobenzene	50.0	46.8	93.6	74	125
Surr: Toluene-d8	50.0	47.9	95.8	82	118

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

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

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/22/2011 12:39:31 PM

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HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

COP ElPaso1A

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 11030373
Lab Batch ID: R317150

Sample Spiked: 11030370-02
RunID: Q_110316B-5745216 Units: ug/L
Analysis Date: 03/16/2011 15:01 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	20	18.5	92.6	20	18.1	90.6	2.17	22	70	124
Ethylbenzene	ND	20	20.4	102	20	19.7	98.7	3.42	20	76	122
Toluene	ND	20	20.7	104	20	20.8	104	0.385	24	80	117
m,p-Xylene	ND	40	41.1	103	40	41.2	103	0.262	20	69	127
o-Xylene	ND	20	20.8	104	20	20.3	102	2.10	20	84	114
Xylenes,Total	ND	60	61.9	103	60	61.5	103	0.523	20	69	127
Surr: 1,2-Dichloroethane-d4	ND	50	38.3	76.6	50	44.1	88.2	14.1	30	70	130
Surr: 4-Bromofluorobenzene	ND	50	47.8	95.6	50	47.0	94.0	1.72	30	74	125
Surr: Toluene-d8	ND	50	48.7	97.5	50	48.3	96.5	0.971	30	82	118

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

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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

Quality Control Report

Conoco Phillips

COP ElPaso1A

Analysis: Total Dissolved Solids
Method: SM2540 C

WorkOrder: 11030373
Lab Batch ID: R317179

Method Blank

RunID: WET_110316N-5745713 Units: mg/L
Analysis Date: 03/16/2011 14:30 Analyst: MM1

Analyte	Result	Rep Limit
Total Dissolved Solids (Residue,Filterable)	ND	10

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030373-01A	MW-1
11030373-02A	MW-2
11030373-03A	MW-3
11030373-04A	MW-4

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: WET_110316N-5745715 Units: mg/L
Analysis Date: 03/16/2011 14:30 Analyst: MM1

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Total Dissolved Solids (Residue,Filterabl	200.0	199.0	99.50	200.0	198.0	99.00	0.5	10	95	107

Sample Duplicate

Original Sample: 11030373-01
RunID: WET_110316N-5745719 Units: mg/L
Analysis Date: 03/16/2011 14:30 Analyst: MM1

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Total Dissolved Solids (Residue,Filterabl	14200	14030	1.06	10

Qualifiers:

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

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

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

Quality Control Report

Conoco Phillips

COP ElPaso1A

Analysis: Ion Chromatography
Method: E300.0

WorkOrder: 11030373
Lab Batch ID: R317237A

Method Blank

RunID: IC1_110317B-5746656 Units: mg/L
Analysis Date: 03/17/2011 9:52 Analyst: ESK

Analyte	Result	Rep Limit
Fluoride	ND	0.50
Sulfate	ND	0.50

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030373-01A	MW-1
11030373-02A	MW-2
11030373-03A	MW-3
11030373-04A	MW-4

Laboratory Control Sample (LCS)

RunID: IC1_110317B-5746657 Units: mg/L
Analysis Date: 03/17/2011 10:08 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Fluoride	10.00	10.43	104.3	90	110
Sulfate	10.00	10.23	102.3	90	110

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

Sample Spiked: 11030373-01
RunID: IC1_110317B-5746663 Units: mg/L
Analysis Date: 03/17/2011 15:31 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Fluoride	2.437	5	7.506	101.4	5	7.311	97.48	2.632	15	80	120

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

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

Version 2.1 - Modified February 11, 2011

ACCUTEST LABORATORIES

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

Quality Control Report

Conoco Phillips

COP ElPaso1A

Analysis: Ion Chromatography
Method: E300.0

WorkOrder: 11030373
Lab Batch ID: R317237B

Method Blank

RunID: IC1_110317B-5746656 Units: mg/L
Analysis Date: 03/17/2011 9:52 Analyst: ESK

Analyte	Result	Rep Limit
Fluoride	ND	0.50
Sulfate	ND	0.50

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030373-01A	MW-1
11030373-02A	MW-2
11030373-03A	MW-3
11030373-04A	MW-4

Laboratory Control Sample (LCS)

RunID: IC1_110317B-5746657 Units: mg/L
Analysis Date: 03/17/2011 10:08 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Fluoride	10.00	10.43	104.3	90	110
Sulfate	10.00	10.23	102.3	90	110

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

Sample Spiked: 11030373-01
RunID: IC1_110317B-5746678 Units: mg/L
Analysis Date: 03/17/2011 19:33 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Sulfate	6524	5000	12070	111.0	5000	12010	109.7	0.5253	15	80	120

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

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/22/2011 12:39:32 PM

Sample Receipt Checklist

And

Chain of Custody

ACCUTEST LABORATORIES

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

Sample Receipt Checklist

Workorder:	11030373	Received By:	NB
Date and Time Received:	3/16/2011 9:10:00 AM	Carrier name:	Fedex-Standard Overnight
Temperature:	2.0/2.0°C	Chilled by:	Water Ice

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

*VOA Preservation Checked After Sample Analysis

SPL Representative: _____ Contact Date & Time: _____

Client Name Contacted: _____

Non Conformance Issues: _____

Client Instructions: _____

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No.: 1103073 | 297388 | page 1 of 2

Client Name: Tetra Tech
Address: 6121 Indian School Rd. NE Ste. 200
City: Albuquerque State: NM Zip: 87110-3430
Phone/Fax: (505) 237-8440
Client Contact: Kelly Blanchard Email: Kelly.blanchard@tetratech.com
Project Name/No.: El Paso No. 1A
Site Name:
Site Location: Blanco, NM
Invoice To: Ph:

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

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	Number of Containers	Requested Analysis: Fluoride, Sulfate, TDS	Dissolved Mn	BTEX
MW-1	3.14.11	1630		X	W	P	1	Na	1	X		
MW-1	3.14.11	1630		X	W	P	16	Na	1		X	
MW-1	3.14.11	1630		X	W	V	40	1	3			X
MW-2	3.14.11	1700		X	W	P	1	Na	1	X		
MW-2	3.14.11	1700		X	W	P	16	Na	1		X	
MW-2	3.14.11	1700		X	W	V	40	1	3			X
MW-3	3.14.11	1625		X	W	P	1	Na	1	X		
MW-3	3.14.11	1625		X	W	P	16	Na	1		X	
MW-3	3.14.11	1625		X	W	V	40	1	3			X
MW-4	3.14.11	1645		X	W	P	1	Na	1	X	SHORT HOLDS	

Client/Consultant Remarks: Please filter & preserve metals @ lab
* Note Special detection limits for Flouride!
Laboratory remarks:
Intact? Y N
Ice? Y N
Temp:

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

Special Reporting Requirements Results: Fax Email PDF
Standard QC Level 3 QC Level 4 QC TX TRRP LA RECAP
Special Detection Limits (specify): NMWQCC standards provided to lab
PM review (initial):

	date	time	
1. Relinquished by Sampler:	3.15.11	0730	2. Received by:
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	date 3/16/11	time 0910	6. Received by Laboratory:

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

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

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

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No: 1103037 3 | 302624 | page 2 of 2

Client Name: Tetra Tech
Address: 6121 Indian School Rd NE #200
City: ABQ State: NM Zip: 87110
Phone/Fax: 505.237.8440
Client Contact: Kelly Blanchard Email: kelly.blanchard@tetratech.com
Project Name/No.: El Paso No. 1A
Site Name:
Site Location: Blanco, NM
Invoice To: Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix (W=water S=soil O=oil A=air SL=sludge E=empty X=other)	bottle (P=plastic A=amber glass G=glass V=vial X=other)	size (1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other)	pres. (1=HCl 2=HNO3 3=H2SO4 X=other)	Number of Containers	Requested Analysis: Fluoride, Sulfate, TDS	Dissolved Mn	BTEX
MW-4	3.14.11	1645		X	W	P	16	N	1		X	
MW-4	3.14.11	1645		X	W	V	40	1	3			X
duplicate	3.14.11	1635		X	W	V	40	1	3			X
trip blank	3.14.11	2200		X	W	V	40	1	2			X

Client/Consultant Remarks: Please filter & preserve Metals @ lab. *Note: special detection limits for fluoride
Laboratory remarks:
Intact? ☐ Y ☐ N
Ice? ☐ Y ☐ N
Temp:

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

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

Special Detection Limits (specify): Flouride. NMWQCC Standards Provided to lab

PM review (initial):

	date	time		
1. Relinquished by Sampler:	3.15.11	0730	2. Received by:	
3. Relinquished by:	date	time	4. Received by:	
5. Relinquished by:	date 3/16/11	time 0910	6. Received by Laboratory:	

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

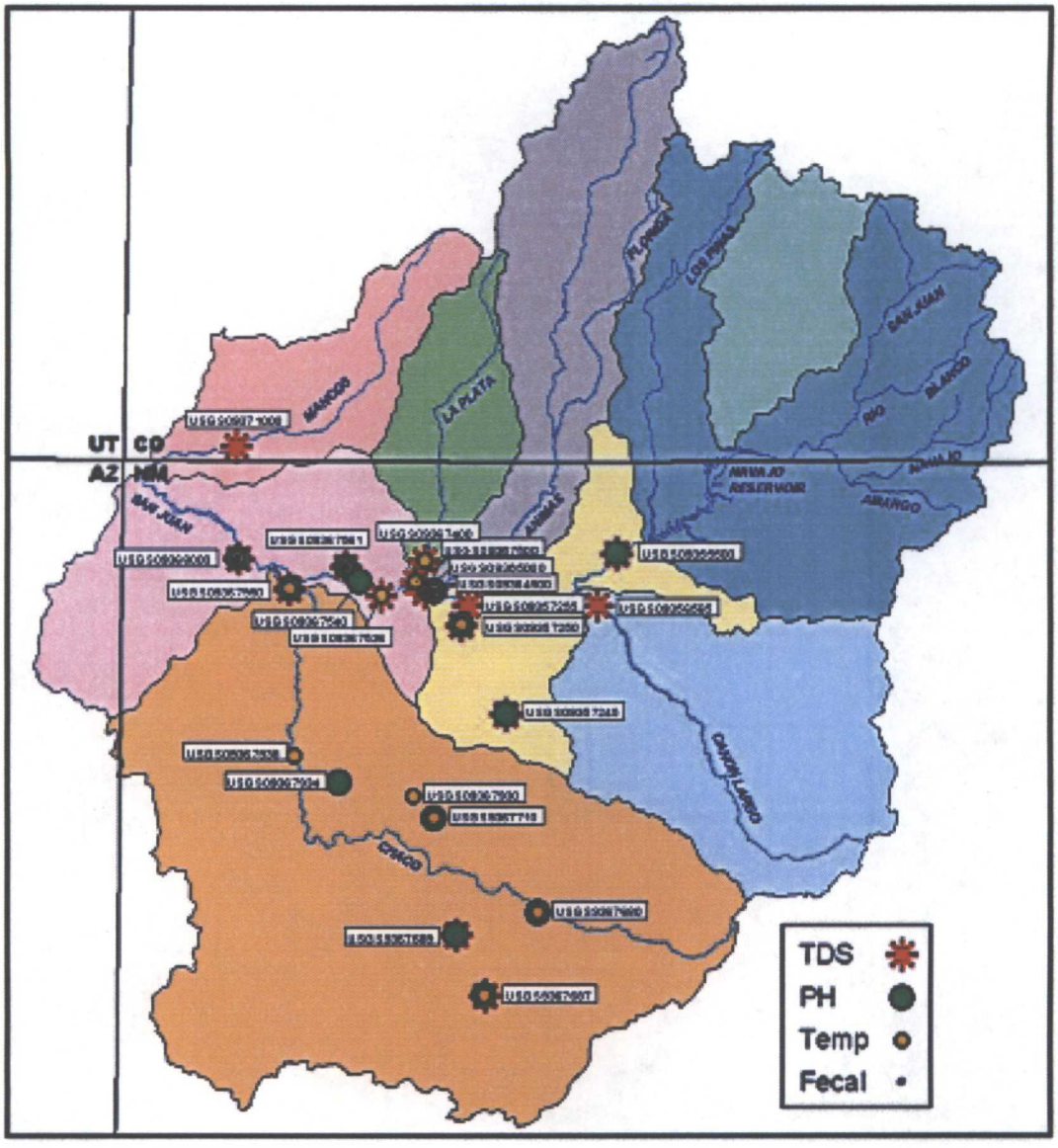
☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

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

APPENDIX C

SAN JUAN WATER COMMISSION, SAN JUAN HYDROLOGIC UNIT REGIONAL WATER PLAN, WATER SUPPLY ASSESSMENT, VOLUME III. FIGURE 1-6 (SEPTEMBER 2003)

Figure 1-6 Water Quality Standards Exceedance Locations



The exceedances for pH, temperature, fecal coliform, and turbidity are included in Appendix B. Phosphorus standards were not exceeded.

1.3.3. Total Dissolved Solids

Total Dissolved Solids (TDS) is a frequently used parameter for evaluating water quality. Municipal uses are typically limited to waters with less than 1,000 mg/l TDS. Agricultural uses are frequently limited to 800 to 1,200 mg/l depending on the ability of the soils to drain and move salts away from root zones. Crop types determine the root zone depths.

The water quality issues section of the 1994 40-Year Regional Water Plan, Planning and Development District 1 identifies salinity as a "long-term water quality issue." Much of this long-term issue is related to the salt loading (1.2 million tons per year) at Bluff, Utah.

However, there is a difference between loading and concentration. Loading has significance to downstream uses but concentration has significance to the uses within the San Juan Hydrologic Unit. Although there are instances of extremely high concentrations associated with return flows from NIIP lands in the Gallegos and Ojo Amarillo Washes (3,000 mg/l) and the Hogback area (15,000 mg/l), the principal surface water supplies – San Juan, Animas, and La Plata Rivers, have exhibited few instances of moderate to high salinity concentrations. Implementation plans to mitigate pollutants from these return flow areas should be included in the TMDL study to be completed in 2004.

A review of the water quality data identified the stations that experience TDS readings greater than 1,200 mg. Figure 1.6 shows the location of those stations.

The frequency of the TDS exceedance represents 7.5% of the TDS measurements (249 of 3,334 records).

1.3.4. Polynuclear Aromatic Hydrocarbon (PAH)

Because of the significant oil and gas industry in the San Juan Hydrologic Unit, there have been questions about the impact of PAH from these industries on the water quality of the region. The Bureau of Land Management (BLM) issued a draft Resource Management Plan and Environmental Impact Statement on oil and gas leasing. This document resulted in an on-going PAH study being conducted by the BLM Farmington Field Office. The fiscal year 2002 project proposal for this study states:

> "The sediment and water sampling program has been relatively ineffective. The Reasons for this may be attributed to the short life of PAHs, which are quickly partitioned either to sediment or biota, sediment cycling and removal, the complete absence of PAHs from the San Juan or Animas Rivers, or a combination of all these factors."

It was concluded by the study participants that monitoring of the rivers will be discontinued and their efforts focused on storm water collection and air monitoring. Therefore, it can be concluded for this regional plan that the principal water supplies for the San Juan Hydrologic Unit are not impaired by PAH.

1.3.5. Surface Water Quality Summary

The following conclusions were developed from the data evaluated for this study:

- The surface water quality throughout the San Juan Hydrologic Unit supports all uses except for fisheries according to 303(d) List for assessed streams.
- The State of New Mexico Standards for Surface Waters are exceeded primarily in the San Juan River below the confluence with the Animas River.
- TDS exceeds 1,200 mg/l at several locations but their frequency of exceedance is only 7.5 percent of the samples.
- Generally, the water quality of surface water supplies do not impair the uses in the basin and do not reduce the available water supply.