

3R - 427

**APRIL 2010
QUARTERLY
GWMR**

02/23/2011



TETRA TECH, INC.

3R427

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

February 23, 2011

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

RE: ConocoPhillips El Paso No. 1A April 2010 Quarterly Groundwater Monitoring Report
Blanco, New Mexico

Dear Mr. von Gonten:

Enclosed please find a copy of the above-referenced document as compiled by Tetra Tech, Inc., formerly Maxim Technologies, for this Blanco area site.

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

Sincerely,

Kelly E. Blanchard
Project Manager/Geologist

Enclosures (1)

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

**QUARTERLY GROUNDWATER
MONITORING REPORT
APRIL 2010 SAMPLING EVENT
CONOCOPHILLIPS COMPANY
EL PASO NO.1A
SAN JUAN COUNTY, NEW MEXICO
API # 30-045-22778**

Prepared for:



420 South Keeler Avenue
Bartlesville, OK 74004

Prepared by:



TETRA TECH, INC.

6121 Indian School Rd. NE Suite 200
Albuquerque, NM 87110
Tetra Tech Project No. 96900122.100

May 2010

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2. Groundwater Elevation Data Summary
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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 April 28, 2010 at the ConocoPhillips Company El Paso No. 1A site in San Juan County, New Mexico (Site). This sampling event represents the seventh quarter of groundwater monitoring conducted by Tetra Tech at the Site.

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 can be accessed by turning southeast on County Road 4450 and traveling approximately 300 feet before veering south. Veer south again after traveling 0.1 miles and continue 0.4 miles to the Site. The Site consists of well head El Paso No. 1S and well head El Paso No. 1A; with associated equipment and installations. The location and general features of the Site are presented as **Figures 1** and **2**, respectively. A generalized cross section of the Site 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 April 28, 2010 groundwater elevation measurements were recorded in Monitor Wells MW-1, MW-2, MW-3, and MW-4 using a dual interface probe. Groundwater elevations are detailed in **Table 2**. A groundwater elevation contour map is presented as **Figure 4**. Based on April 2010 monitoring event data, groundwater flow is southwest and consistent with historic records at this site. The San Juan River is approximately 1 mile from the site and flows west.

Groundwater sampling

Each monitor well was sampled after approximately 3 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 1.5-inch polyethylene dedicated 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 Southern Petroleum Laboratory located in Houston, Texas. The samples were

analyzed for presence of volatile organic compounds (VOC) including benzene, toluene, ethylbenzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B, ion chromatography by EPA Method E300.0, total dissolved solids (TDS) by EPA Method 2540C, and dissolved metals for manganese by EPA Method 6010B.

Total metals testing was conducted during prior events as requested by the Oil Conservation Division (OCD) in April of 2008; however, since all New Mexico Water Quality Control Commission (NMWQCC) drinking water standards pertain to dissolved metals concentrations, Tetra Tech requested and received approval from the OCD on September 8, 2009 to run dissolved metals analyses for only those metals which had exceeded the NMWQCC drinking water standards. Dissolved metals testing will continue for metals exceeding NMWQCC drinking water standards.

2.3 Groundwater Sampling Analytical Results

The December 2009 analysis of the collected groundwater samples indicates that all BTEX constituents are below NMWQCC groundwater quality standards. Groundwater laboratory analytical results are summarized in **Table 3**. A figure showing all NMWQCC standard exceedences is provided as **Figure 5**.

- **Fluoride**

The groundwater quality standard for fluoride is 1.6 milligrams per liter (mg/L). Groundwater collected from Monitor Wells MW-1, MW-2, and MW-4 were found to contain fluoride at concentrations of 2.14 mg/L; 2.18 mg/L; and 2.38 mg/L; respectively.

- **Sulfate**

The groundwater quality standard for sulfate is 600 mg/L. Groundwater collected from Monitor Wells MW-1, MW-2, MW-3 and MW-4 were found to contain sulfate at concentrations of 8,100 mg/L; 8,350 mg/L; 5,680 mg/L; and 4,820 mg/L; respectively.

- **Manganese**

The groundwater quality standard for dissolved manganese is 0.2 mg/L. Groundwater collected from Monitor Wells MW-1, MW-2, and MW-3 were found to contain manganese at concentrations of 2.37 mg/L; 0.941 mg/L; and 0.519 mg/L; respectively.

- **Total Dissolved Solids**

The groundwater quality standard for TDS is 1,000 mg/L. Groundwater collected from monitor wells MW-1, MW-2, MW-3 and MW-4 were found to contain TDS at concentrations of 10,300 mg/L; 12,300 mg/L; 6,610 mg/L; and 8,320 mg/L; respectively.

The laboratory analysis report for the April 2010 groundwater sampling event is included as **Appendix B**.

3.0 CONCLUSIONS

Tetra Tech recommends continued quarterly groundwater sampling at the Site in order to provide sufficient data for Site closure. Site closure will be requested when groundwater quality results indicate that all constituents of concern are consistently below NMWQCC groundwater quality standards or

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

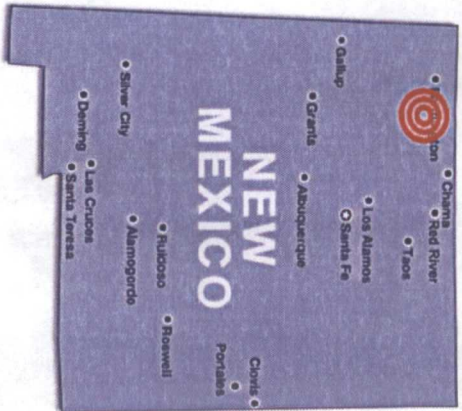
FIGURES

- 1. Site Location Map**
- 2. Site Layout Map**
- 3. Site Cross Section**
- 4. Groundwater Elevation Contour Map**
- 5. Groundwater Concentration Map**



FIGURE 1.

Site Location Map
ConocoPhillips
Company
El Paso No. 1A
San Juan County, NM



Directions from HW 64 to
ConocoPhillips
El Paso No. 1A Site Location
Approximate ConocoPhillips
El Paso No. 1A
Site location



TETRA TECH, INC.

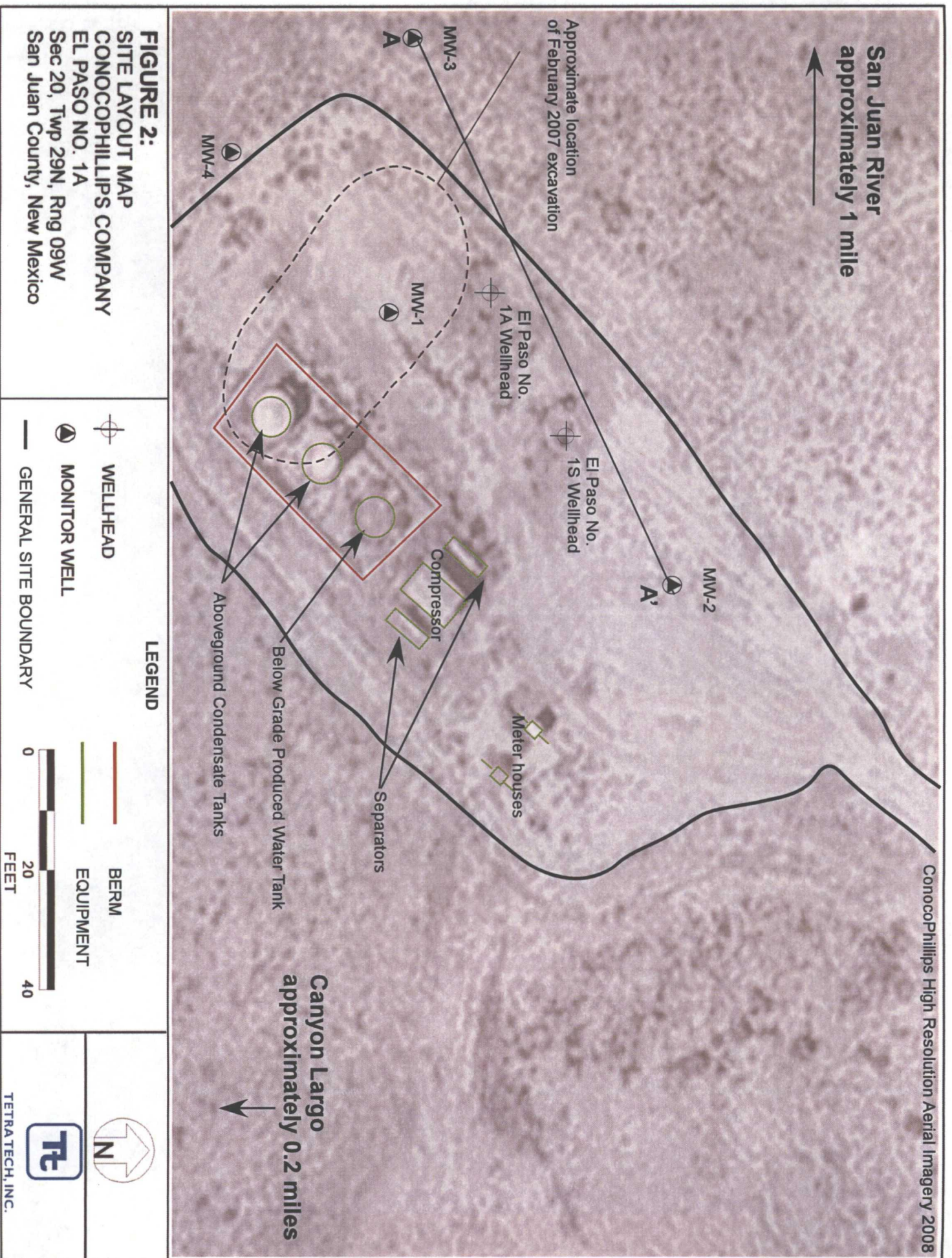


Figure 3
El Paso No. 1A - Cross-Section A-A'

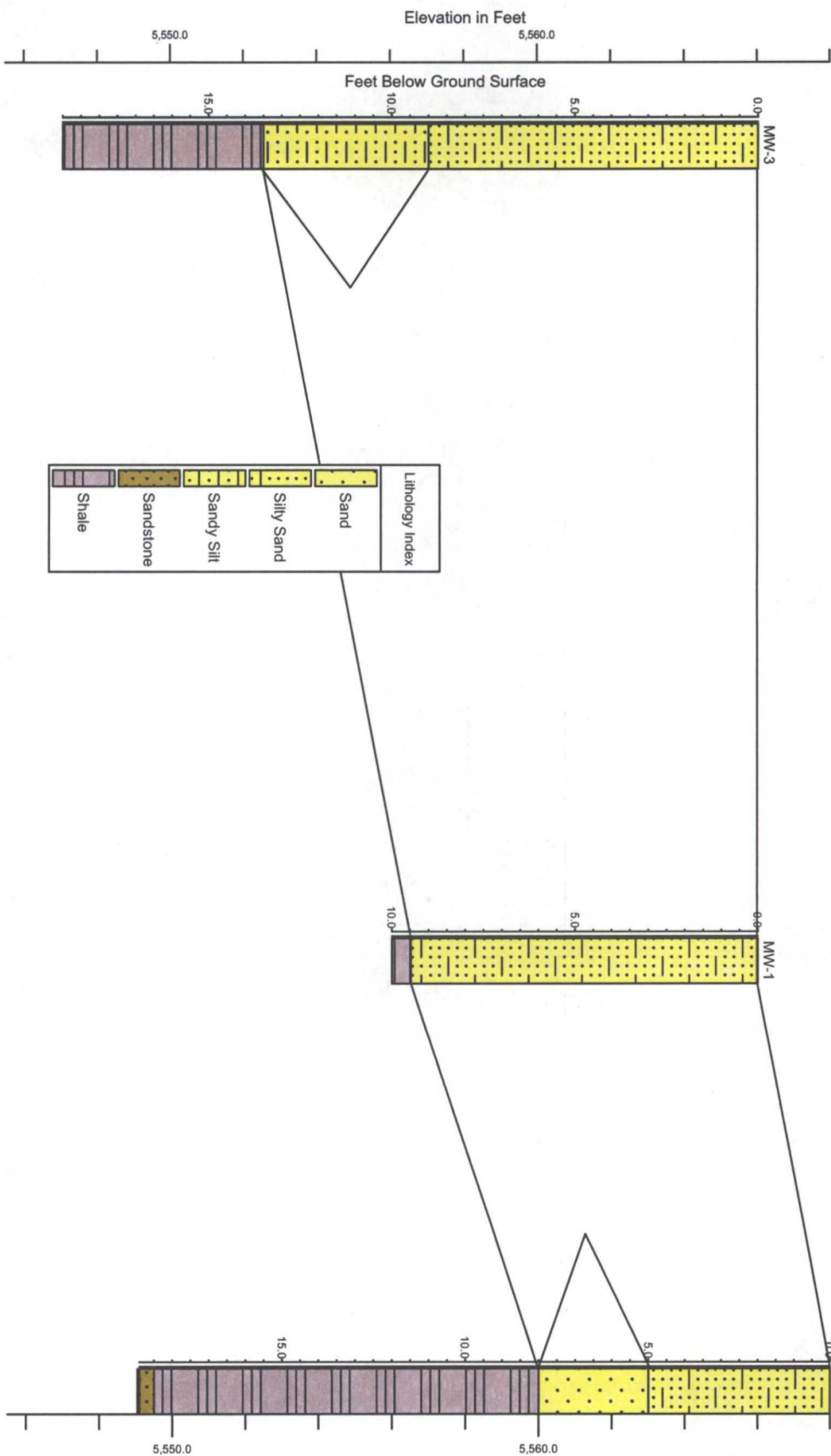
A

A'

249,502
4,067,092

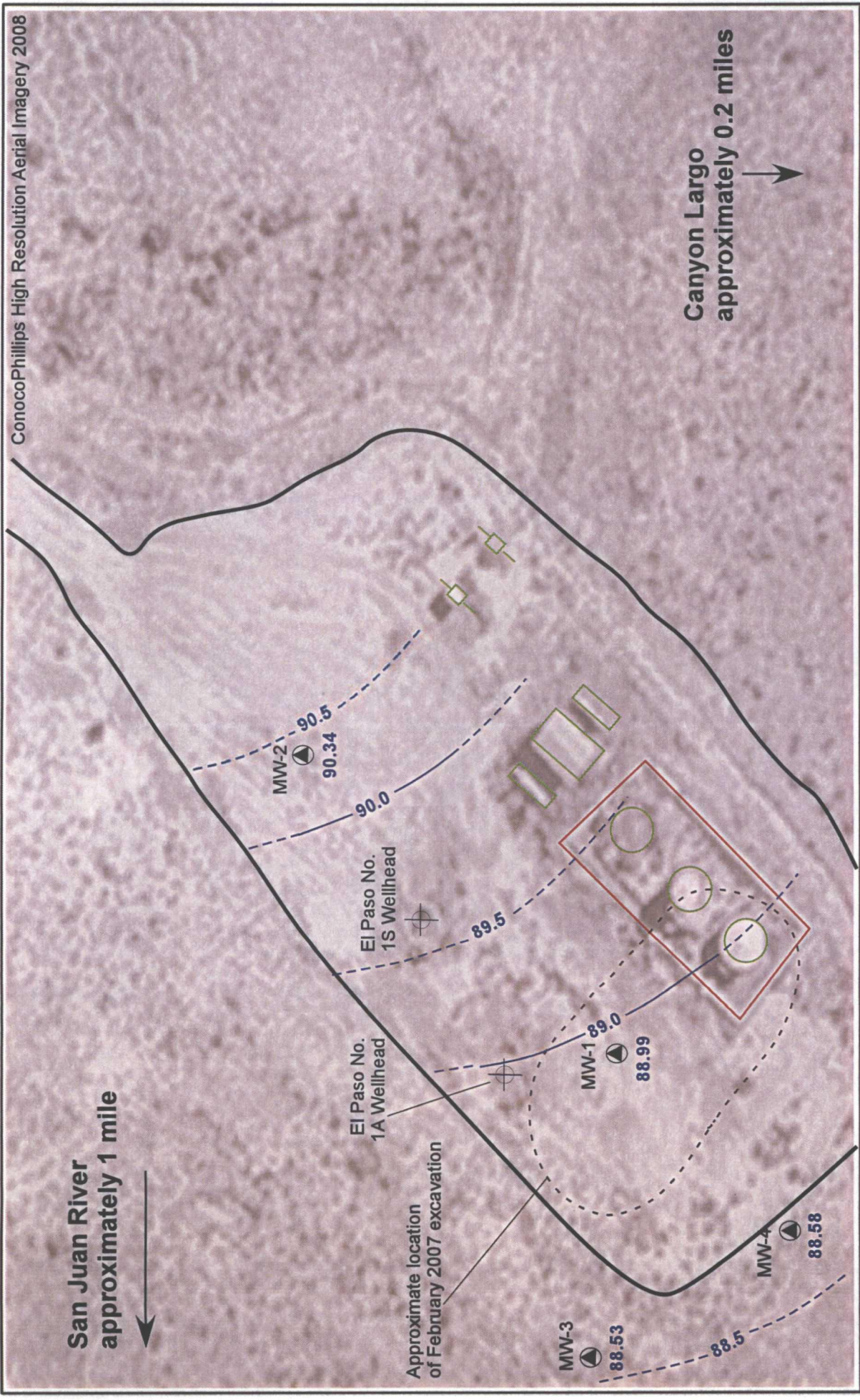
249,529
4,067,090

249,554
4,067,090



5/24/2010

Surface Distance in Feet



ConocoPhillips High Resolution Aerial Imagery 2008

<p>FIGURE 4: GROUNDWATER ELEVATION MAP 04/28/2010 CONOCOPHILLIPS COMPANY EL PASO NO. 1A Sec 20, Twp 29N, Rng 09W San Juan County, New Mexico</p>	<p>LEGEND</p> <ul style="list-style-type: none"> WELLHEAD MONITOR WELL BERM EQUIPMENT GROUNDWATER ELEVATION (FEET) GENERAL SITE BOUNDARY <p>0 20 40 FEET</p>	<p>N</p> <p>Tt</p> <p>TETRA TECH, INC.</p>
---	---	---

San Juan River
approximately 1 mile

Canyon Largo
approximately 0.2 miles

Sulfate = 8,350 mg/L
Manganese = 0.941 mg/L
TDS = 12,300 mg/L
Fluoride = 2.18 mg/L
MW-2

El Paso No.
1S Wellhead

Approximate location
of February 2007 excavation

Sulfate = 5,680 mg/L
Manganese = 0.519 mg/L
TDS = 6,610 mg/L
MW-3

El Paso No.
1A Wellhead

Sulfate = 8,100 mg/L
Manganese = 2.37 mg/L
TDS = 10,300 mg/L
Fluoride = 2.14 mg/L
MW-1

Sulfate = 4,820 mg/L
Fluoride = 2.38 mg/L
TDS = 8,320 mg/L
MW-4

FIGURE 5:
GROUNDWATER QUALITY STANDARD
EXCEEDENCES CONCENTRATION MAP
4/28/2010

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



TETRA TECH, INC.

TABLES

- 1. Site History Timeline**
- 2. Groundwater Elevation Data Summary**
- 3. Groundwater Laboratory Analytical Results Summary**

Table 1. Site History Timeline - ConocoPhillips Company El Paso 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 acquisition 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	Ground water 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.
28-Jan-09	2nd quarter groundwater sampling of MW-1 by Tetra Tech. Groundwater samples were reported missing by Southern Petroleum Laboratory. No data was received for January 2009 sampling event.
3-4-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	3rd quarter groundwater sampling conducted by Tetra Tech. 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.
18-Jun-09	2nd quarter groundwater sampling conducted by Tetra Tech to include wells MW-1, MW-2, MW-3 and MW-4.
29-Sep-09	3rd quarter 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.
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.
28-Apr-10	1st quarter 2010 groundwater sampling conducted by Tetra Tech.

Table 2. Groundwater Elevation Data Summary - ConocoPhillips Company El Paso 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	4'8"-9'8"	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
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
				4/2/2009	9.71	88.47
MW-3	21.15	3.1-18.1	98.175	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
				4/2/2009	9.74	88.54
MW-4	20.83	2.9-17.9	98.28	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

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

Tetra Tech

Table 3. Groundwater Laboratory Analytical Results Summary - ConocoPhillips Company El Paso 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
	1/30/2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	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
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
	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
MW-3	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
	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
MW-4	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
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 = Not Analyzed due to laboratory error

<0.7 = Below laboratory detection limit of 0.7 µg/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

APPENDIX A
GROUNDWATER SAMPLING FIELD FORMS



TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name El Paso 1APage 1 of 4

Project No. _____

Site Location Blanco, NMSite/Well No. MW-1Coded/
Replicate No. duplicate (1115)Date 4-28-10Weather Cloudy, 60°Time Sampling
Began _____Time Sampling
Completed 1100

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 13.58

Water-Level Elevation _____

Held _____ Depth to Water Below MP 10.53Diameter of Casing 2"

Wet _____ Water Column in Well _____

Gallons Pumped/Bailed
Prior to Sampling _____Gallons per Foot 0.16

Gallons in Well _____

Sampling Pump Intake Setting
(feet below land surface) _____Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)
1050	11.32	8.33	12479	8.109	2.95	-72.1
1052	11.32	8.38	12442	8.116	2.99	-72.0
1055	11.29	8.38	12488	8.123	3.13	-75.9
1058						

00060
28.1
29.0
30.1

Sampling Equipment Purge Pump/Bailer

Constituents Sampled

Container Description

Preservative

BTEX 3 40mL VOA's HCl _____Total Metals Dissolved Mn plastic (16 oz) none filtered @ labFluoride, Sulfate, TDS plastic (32 oz) none _____Remarks Animal hair and black sediment in well water.Sampling Personnel ICB

Well Casing Volumes

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

2 of 4

EP1A 4-28-10 Qu. sampling

MW-2

DTW = 8.32 TO = 20.7 purge vol =

Time	Temp	pH	Conductivity	TP5	DO	ORP	DO%
1125	11.32	8.10	13524	8.780	5.77	-88.6	55.0
1128	11.28	8.15	13680	8.950	5.44	-89.9	52.1
1130	11.29	8.15 8.15	13700	8.968	5.32	-91.2	51.1

Time Sampled : 1130



TETRA TECH, INC.

WATER SAMPLING FIELD FORM

Project Name El Paso 1APage 3 of 4

Project No. _____

Site Location Blanco, NMSite/Well No. MW-3Coded/
Replicate No. _____Date 4-28-10Weather cloudy, 60°Time Sampling
Began 1140Time Sampling
Completed 1155

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 21.11 Water-Level Elevation _____

Held _____ Depth to Water Below MP _____

Diameter of Casing 2"

Wet _____ Water Column in Well _____

Gallons Pumped/Bailed
Prior to Sampling _____Gallons per Foot 0.16Sampling Pump Intake Setting
(feet below land surface) _____

Gallons in Well _____

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)
1142	11.49	8.53	10624	6.966	4.64	-202.4
1144	11.48	8.63	10493	7.786	3.69	-206.3
1146	11.47	8.65	10510	7.651	3.72	-208.4

DO %
44.2
38.1
39.4Sampling Equipment Purge Pump/Bailer

Constituents Sampled

Container Description

Preservative

BTEX 3 40mL VOA's HCl _____Total Metals Dissolved Mn plastic (16oz) none filtered @ 1 µmFluoride, Sulfate, TDS plastic (32oz) none _____Remarks water is gray, sulfur odorSampling Personnel KPB

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 1APage 4 of 4

Project No. _____

Site Location Blanco, NMSite/Well No. MW-4Coded/
Replicate No. Date 4-28-10Weather cloudy, 60°Time Sampling
Began ~~1140~~ 1215Time Sampling
Completed 1235

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 20.86

Water-Level Elevation _____

Held _____ Depth to Water Below MP _____

Diameter of Casing 2"

Wet _____ Water Column in Well _____

Gallons Pumped/Bailed
Prior to Sampling _____Gallons per Foot 0.16Sampling Pump Intake Setting
(feet below land surface) _____

Gallons in Well _____

Purging Equipment Purge pump / Bailer

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity (µS/cm³)	TDS (g/L)	DO (mg/L)	ORP (mV)
1220	11.57	8.67	8840	5.454	4.28	-101.9
1223	11.90	8.65	8488	5.459	3.75	-102.8
1228	11.58	8.75	8330	5.434	3.80	-95.8

000%
38.7
34.9
36.0

Sampling Equipment Purge Pump/Bailer

Constituents Sampled

Container Description

Preservative

BTEX 3 40mL VOA's HCl _____Total Metals Dissolved Mn plastic (16 oz) none filtered @ labFluoride, Sulfate, TDS plastic (32 oz) none _____

Remarks _____

Sampling Personnel UPB

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 ANALYTICAL REPORT



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

Certificate of Analysis

May 14, 2010

Workorder: H10040613

Christine Matthews
Tetra Tech, Inc.
6121 Indian School Road NE
Suite 200
Albuquerque, NM 87110

Project: El Paso #1A
Project Number: El Paso #1A
Site: El Paso #1A / Blanco, NM (San Juan County)
PO Number: ENFOS
NELAC Cert. No.: T104704205-09-1

This Report Contains A Total Of 25 Pages

Excluding Any Attachments



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

Certificate of Analysis

May 14, 2010

Workorder: H10040613

Christine Matthews
Tetra Tech, Inc.
6121 Indian School Road NE
Suite 200
Albuquerque, NM 87110

Project: El Paso #1A
Project Number: El Paso #1A
Site: El Paso #1A / Blanco, NM (San Juan County)
PO Number: ENFOS
NELAC Cert. No.: T104704205-09-1

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

May 14, 2010

Workorder: H10040613

Christine Matthews
Tetra Tech, Inc.
6121 Indian School Road NE
Suite 200
Albuquerque, NM 87110

Project: El Paso #1A
Project Number: El Paso #1A
Site: El Paso #1A / Blanco, NM (San Juan County)
PO Number: ENFOS
NELAC Cert. No.: T104704205-09-1

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 his designee, as verified by the following signature.

Erica Cardenas, Senior Project Manager

Enclosures



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SAMPLE SUMMARY

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID	Sample ID	Matrix	COC ID	Date/Time Collected	Date/Time Received
H10040613001	MW-1	Water		4/28/2010 11:00	4/29/2010 09:15
H10040613002	MW-2	Water		4/28/2010 11:30	4/29/2010 09:15
H10040613003	MW-3	Water		4/28/2010 11:55	4/29/2010 09:15
H10040613004	MW-4	Water		4/28/2010 12:35	4/29/2010 09:15
H10040613005	Duplicate	Water		4/28/2010 11:15	4/29/2010 09:15
H10040613006	Trip Blank	Water		4/28/2010 00:00	4/29/2010 09:15



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ANALYTICAL RESULTS

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID: H10040613001

Date/Time Received: 4/29/2010 09:15 Matrix: Water

Sample ID: MW-1

Date/Time Collected: 4/28/2010 11:00

Analysis Desc: EPA 300.0

Analytical Batches:

Batch: 1281 EPA 300.0 on 05/04/2010 16:49 by CFS DF = 1.

Batch: 1281 EPA 300.0 on 05/04/2010 23:25 by CFS DF = 1000.

Parameters	Results					Batch Information		
	mg/l	Qual	Report Limit	MDL	DF	RegLmt	Prep	Analysis
Fluoride	2.14		0.500	0.0430	1			1281
Sulfate	8100		500	43.5	1000			1281

WET CHEMISTRY

Analysis Desc: SM 2540 C

Analytical Batches:

Batch: 1585 SM 2540 C on 05/03/2010 19:44 by CFS

Parameters	Results					Batch Information		
	mg/l	Qual	Report Limit	MDL	DF	RegLmt	Prep	Analysis
Residue, Filterable (TDS)	10300		100	39.4	10			1585

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B

Preparation Batches:

Batch: 1708 SW-846 3010A on 04/29/2010 20:00 by R_V

Analytical Batches:

Batch: 1384 SW-846 6010B on 05/11/2010 21:28 by EBG

Parameters	Results					Batch Information		
	mg/l	Qual	Report Limit	MDL	DF	RegLmt	Prep	Analysis
Manganese	2.37		0.00500	0.000300	1		1708	1384

VOLATILES

Analysis Desc: SW-846 8260B

SW-846 5030Analytical Batches:

Batch: 1841 SW-846 8260B on 04/30/2010 12:29 by JMC

Parameters	Results					Batch Information		
	ug/l	Qual	Report Limit	MDL	DF	RegLmt	Prep	Analysis
Benzene	ND		1.0	0.10	1			1841
Ethylbenzene	ND		1.0	0.15	1			1841
Toluene	ND		1.0	0.29	1			1841
m,p-Xylene	ND		1.0	0.18	1			1841
o-Xylene	ND		1.0	0.13	1			1841
Xylenes, Total	ND		1.0	0.13	1			1841
4-Bromofluorobenzene (S)	101 %		74-125		1			1841



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ANALYTICAL RESULTS

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID: H10040613001

Date/Time Received: 4/29/2010 09:15 Matrix: Water

Sample ID: MW-1

Date/Time Collected: 4/28/2010 11:00

Parameters	Results			MDL	DF	RegLmt	Batch Information	
	Qual	Report Limit					Prep	Analysis
1,2-Dichloroethane-d4 (S)	99 %	70-130			1			1841
Toluene-d8 (S)	101 %	82-118			1			1841



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ANALYTICAL RESULTS

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID: H10040613002

Date/Time Received: 4/29/2010 09:15 Matrix: Water

Sample ID: MW-2

Date/Time Collected: 4/28/2010 11:30

Analysis Desc: EPA 300.0

Analytical Batches:

Batch: 1281 EPA 300.0 on 05/04/2010 17:08 by CFS DF = 1.

Batch: 1281 EPA 300.0 on 05/04/2010 23:44 by CFS DF = 1000.

Parameters	Results					RegLmt	Batch Information	
	mg/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Fluoride	2.18	I	0.500	0.0430	1			1281
Sulfate	8350		500	43.5	1000			1281

WET CHEMISTRY

Analysis Desc: SM 2540 C

Analytical Batches:

Batch: 1585 SM 2540 C on 05/03/2010 19:44 by CFS

Parameters	Results					RegLmt	Batch Information	
	mg/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Residue, Filterable (TDS)	12300		100	39.4	10			1585

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B

Preparation Batches:

Batch: 1708 SW-846 3010A on 04/29/2010 20:00 by R_V

Analytical Batches:

Batch: 1384 SW-846 6010B on 05/11/2010 21:34 by EBG

Parameters	Results					RegLmt	Batch Information	
	mg/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Manganese	0.941		0.00500	0.000300	1		1708	1384

VOLATILES

Analysis Desc: SW-846 8260B

SW-846 5030Analytical Batches:

Batch: 1841 SW-846 8260B on 04/30/2010 12:57 by JMC

Parameters	Results					RegLmt	Batch Information	
	ug/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Benzene	ND		1.0	0.10	1			1841
Ethylbenzene	ND		1.0	0.15	1			1841
Toluene	ND		1.0	0.29	1			1841
m,p-Xylene	ND		1.0	0.18	1			1841
o-Xylene	ND		1.0	0.13	1			1841
Xylenes, Total	ND		1.0	0.13	1			1841
4-Bromofluorobenzene (S)	94.1 %		74-125		1			1841

Report ID: H10040613_6124

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ANALYTICAL RESULTS

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID: H10040613002

Date/Time Received: 4/29/2010 09:15 Matrix: Water

Sample ID: MW-2

Date/Time Collected: 4/28/2010 11:30

Parameters	Results		Report Limit	MDL	DF	RegLmt	Batch Information	
	Qual						Prep	Analysis
1,2-Dichloroethane-d4 (S)	103 %		70-130		1			1841
Toluene-d8 (S)	99.5 %		82-118		1			1841



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ANALYTICAL RESULTS

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID: H10040613003

Date/Time Received: 4/29/2010 09:15 Matrix: Water

Sample ID: MW-3

Date/Time Collected: 4/28/2010 11:55

Analysis Desc: EPA 300.0

Analytical Batches:

Batch: 1281 EPA 300.0 on 05/04/2010 17:27 by CFS DF = 1.

Batch: 1281 EPA 300.0 on 05/05/2010 00:03 by CFS DF = 1000.

Parameters	Results					RegLmt	Batch Information	
	mg/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Fluoride	1.53	I	0.500	0.0430	1			1281
Sulfate	5680		500	43.5	1000			1281

WET CHEMISTRY

Analysis Desc: SM 2540 C

Analytical Batches:

Batch: 1585 SM 2540 C on 05/03/2010 19:44 by CFS

Parameters	Results					RegLmt	Batch Information	
	mg/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Residue, Filterable (TDS)	6610		40.0	15.8	4			1585

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B

Preparation Batches:

Batch: 1708 SW-846 3010A on 04/29/2010 20:00 by R_V

Analytical Batches:

Batch: 1384 SW-846 6010B on 05/11/2010 21:40 by EBG

Parameters	Results					RegLmt	Batch Information	
	mg/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Manganese	0.519		0.00500	0.000300	1		1708	1384

VOLATILES

Analysis Desc: SW-846 8260B

SW-846 5030 Analytical Batches:

Batch: 1841 SW-846 8260B on 04/30/2010 13:24 by JMC

Parameters	Results					RegLmt	Batch Information	
	ug/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Benzene	2.0		1.0	0.10	1			1841
Ethylbenzene	15		1.0	0.15	1			1841
Toluene	ND		1.0	0.29	1			1841
m,p-Xylene	110		1.0	0.18	1			1841
o-Xylene	14		1.0	0.13	1			1841
Xylenes, Total	124		1.0	0.13	1			1841
4-Bromofluorobenzene (S)	99.2 %		74-125		1			1841

Report ID: H10040613_6124

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ANALYTICAL RESULTS

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID: **H10040613003**

Date/Time Received: 4/29/2010 09:15 Matrix: Water

Sample ID: **MW-3**

Date/Time Collected: 4/28/2010 11:55

Parameters	Results	Qual	Report Limit	MDL	DF	RegLmt	Batch Information	
							Prep	Analysis
1,2-Dichloroethane-d4 (S)	97.7 %		70-130		1			1841
Toluene-d8 (S)	99 %		82-118		1			1841



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ANALYTICAL RESULTS

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID: H10040613004

Date/Time Received: 4/29/2010 09:15 Matrix: Water

Sample ID: MW-4

Date/Time Collected: 4/28/2010 12:35

Analysis Desc: EPA 300.0

Analytical Batches:

Batch: 1281 EPA 300.0 on 05/04/2010 17:46 by CFS DF = 1.

Batch: 1281 EPA 300.0 on 05/05/2010 00:21 by CFS DF = 1000.

Parameters	Results					RegLmt	Batch Information	
	mg/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Fluoride	2.35		0.500	0.0430	1			1281
Sulfate	4820		500	43.5	1000			1281

WET CHEMISTRY

Analysis Desc: SM 2540 C

Analytical Batches:

Batch: 1585 SM 2540 C on 05/03/2010 19:44 by CFS

Parameters	Results					RegLmt	Batch Information	
	mg/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Residue, Filterable (TDS)	8320		50.0	19.7	5			1585

ICP DISSOLVED METALS

Analysis Desc: SW-846 6010B

Preparation Batches:

Batch: 1708 SW-846 3010A on 04/29/2010 20:00 by R. V

Analytical Batches:

Batch: 1384 SW-846 6010B on 05/11/2010 21:46 by EBG

Parameters	Results					RegLmt	Batch Information	
	mg/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Manganese	0.198		0.00500	0.000300	1		1708	1384

VOLATILES

Analysis Desc: SW-846 8260B

SW-846 5030Analytical Batches:

Batch: 1841 SW-846 8260B on 04/30/2010 13:52 by JMC

Parameters	Results					RegLmt	Batch Information	
	ug/l	Qual	Report Limit	MDL	DF		Prep	Analysis
Benzene	ND		1.0	0.10	1			1841
Ethylbenzene	ND		1.0	0.15	1			1841
Toluene	ND		1.0	0.29	1			1841
m,p-Xylene	ND		1.0	0.18	1			1841
o-Xylene	ND		1.0	0.13	1			1841
Xylenes, Total	ND		1.0	0.13	1			1841
4-Bromofluorobenzene (S)	92.8 %		74-125		1			1841



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ANALYTICAL RESULTS

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID: H10040613004

Date/Time Received: 4/29/2010 09:15 Matrix: Water

Sample ID: MW-4

Date/Time Collected: 4/28/2010 12:35

Parameters	Results	Qual	Report Limit	MDL	DF	RegLmt	Batch Information	
							Prep	Analysis
1,2-Dichloroethane-d4 (S)	99.1 %		70-130		1			1841
Toluene-d8 (S)	101 %		82-118		1			1841



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ANALYTICAL RESULTS

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID: H10040613005

Date/Time Received: 4/29/2010 09:15 Matrix: Water

Sample ID: Duplicate

Date/Time Collected: 4/28/2010 11:15

VOLATILES

Analysis Desc: SW-846 8260B

Analytical Batches:

Batch: 1845 SW-846 8260B on 05/01/2010 01:16 by JMC

Parameters	Results				Batch Information			
	ug/l	Qual	Report Limit	MDL	DF	RegLmt	Prep	Analysis
Benzene	ND		1.0	0.10	1			1845
Ethylbenzene	ND		1.0	0.15	1			1845
Toluene	ND		1.0	0.29	1			1845
m,p-Xylene	ND		1.0	0.18	1			1845
o-Xylene	ND		1.0	0.13	1			1845
Xylenes, Total	ND		1.0	0.13	1			1845
4-Bromofluorobenzene (S)	95.5 %		74-125		1			1845
1,2-Dichloroethane-d4 (S)	99.5 %		70-130		1			1845
Toluene-d8 (S)	102 %		82-118		1			1845



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ANALYTICAL RESULTS

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID: H10040613006

Date/Time Received: 4/29/2010 09:15 Matrix: Water

Sample ID: Trip Blank

Date/Time Collected: 4/28/2010 00:00

VOLATILES

Analysis Desc: SW-846 8260B

SW-846 5030 Analytical Batches:

Batch: 1845 SW-846 8260B on 05/01/2010 00:48 by JMC

Parameters	Results				DF	RegLmt	Batch Information	
	ug/l	Qual	Report Limit	MDL			Prep	Analysis
Benzene	ND		1.0	0.10	1			1845
Ethylbenzene	ND		1.0	0.15	1			1845
Toluene	ND		1.0	0.29	1			1845
m,p-Xylene	ND		1.0	0.18	1			1845
o-Xylene	ND		1.0	0.13	1			1845
Xylenes, Total	ND		1.0	0.13	1			1845
4-Bromofluorobenzene (S)	95.3 %		74-125		1			1845
1,2-Dichloroethane-d4 (S)	103 %		70-130		1			1845
Toluene-d8 (S)	98.6 %		82-118		1			1845



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QUALITY CONTROL DATA

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

QC Batch: DIGM/1708 Analysis Method: SW-846 6010B
QC Batch Method: SW-846 3010A Preparation: 04/29/2010 20:00 by R_V
Associated Lab Samples: H10040613001 H10040613002 H10040613003 H10040613004

METHOD BLANK: 42177

Analysis Date/Time Analyst: 05/11/2010 19:28 EBG

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

LABORATORY CONTROL SAMPLE: 42178

Analysis Date/Time Analyst: 05/11/2010 19:34 EBG

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Manganese	mg/l	0.10	0.1064	106	80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 42179 42180 Original: H10040590003

MS Analysis Date/Time Analyst: 05/11/2010 19:46 EBG

MSD Analysis Date/Time Analyst: 05/11/2010 19:52 EBG

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Manganese	mg/l	0.0178	0.10	0.1234	0.119	106	101	75-125	3.6	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: H10040613 : El Paso #1A

Project Number: El Paso #1A

QC Batch: MSV/1840 Analysis Method: SW-846 8260B
QC Batch Method: SW-846 5030 Preparation: 04/30/2010 00:00 by JMC
Associated Lab Samples: H10040574001 H10040574002 H10040595002 H10040613001 H10040613002 H10040613003
H10040613004

METHOD BLANK: 42658

Analysis Date/Time Analyst: 04/30/2010 09:45 JMC

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)	%	96.4		74-125
1,2-Dichloroethane-d4 (S)	%	99.4		70-130
Toluene-d8 (S)	%	100		82-118

LABORATORY CONTROL SAMPLE: 42659

Analysis Date/Time Analyst: 04/30/2010 09:18 JMC

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Benzene	ug/l	20	20.3	102	74-123
Ethylbenzene	ug/l	20	20.6	103	72-127
Toluene	ug/l	20	20.9	104	74-126
m,p-Xylene	ug/l	40	43.4	108	71-129
o-Xylene	ug/l	20	22.0	110	74-130
Xylenes, Total	ug/l	60	65.34	109	71-130
4-Bromofluorobenzene (S)	%			99.4	74-125
1,2-Dichloroethane-d4 (S)	%			91.2	70-130
Toluene-d8 (S)	%			99.6	82-118

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 42660

42661

Original: H10040574002

MS Analysis Date/Time Analyst: 04/30/2010 10:40 JMC

MSD Analysis Date/Time Analyst: 04/30/2010 11:07 JMC

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Benzene	ug/l	ND	20	21.3	21.2	107	106	70-124	0.7	20
Ethylbenzene	ug/l	ND	20	18.6	17.7	93.1	88.3	35-175	5.3	20
Toluene	ug/l	3.2	20	22.5	22.0	96.2	93.7	70-131	2.2	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: H10040613 : El Paso #1A

Project Number: El Paso #1A

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 42660 42661 Original: H10040574002

MS Analysis Date/Time Analyst: 04/30/2010 10:40 JMC

MSD Analysis Date/Time Analyst: 04/30/2010 11:07 JMC

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
m,p-Xylene	ug/l	0.93	40	37.8	35.6	92.1	86.6	35-175	6.0	20
o-Xylene	ug/l	ND	20	18.8	18.4	93.9	92.0	35-175	2.0	20
Xylenes, Total	ug/l	ND	60	56.56	53.98	94.3	90.0	35-175	4.7	20
4-Bromofluorobenzene (S)	%	94.6				98.4	96.6	74-125		30
1,2-Dichloroethane-d4 (S)	%	97				99.5	97.6	70-130		30
Toluene-d8 (S)	%	98				95.2	97.1	82-118		30

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: H10040613 : El Paso #1A

Project Number: El Paso #1A

QC Batch: MSV/1844 Analysis Method: SW-846 8260B
QC Batch Method: SW-846 5030 Preparation: 04/30/2010 00:00 by JMC
Associated Lab Samples: H10040574002 H10040613006 H10040616001

METHOD BLANK: 42704

Analysis Date/Time Analyst: 04/30/2010 23:53 JMC

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)	%	95.9		74-125
1,2-Dichloroethane-d4 (S)	%	94.7		70-130
Toluene-d8 (S)	%	101		82-118

LABORATORY CONTROL SAMPLE: 42705

Analysis Date/Time Analyst: 04/30/2010 23:26 JMC

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Benzene	ug/l	20	20.1	101	74-123
Ethylbenzene	ug/l	20	20.3	101	72-127
Toluene	ug/l	20	20.6	103	74-126
m,p-Xylene	ug/l	40	42.4	106	71-129
o-Xylene	ug/l	20	22.1	111	74-130
Xylenes, Total	ug/l	60	64.59	108	71-130
4-Bromofluorobenzene (S)	%			101	74-125
1,2-Dichloroethane-d4 (S)	%			97.3	70-130
Toluene-d8 (S)	%			97.8	82-118

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 42706 42707 Original: H10040613005

MS Analysis Date/Time Analyst: 05/01/2010 01:43 JMC

MSD Analysis Date/Time Analyst: 05/01/2010 02:11 JMC

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Benzene	ug/l	ND	20	19.0	20.1	95.2	101	70-124	5.6	20
Ethylbenzene	ug/l	ND	20	17.7	18.9	88.3	94.6	35-175	7.0	20
Toluene	ug/l	ND	20	18.7	19.6	93.4	97.8	70-131	4.6	20
m,p-Xylene	ug/l	ND	40	36.2	39.6	90.5	98.9	35-175	8.8	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: H10040613 : El Paso #1A

Project Number: El Paso #1A

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 42706 42707 Original: H10040613005

MS Analysis Date/Time Analyst: 05/01/2010 01:43 JMC

MSD Analysis Date/Time Analyst: 05/01/2010 02:11 JMC

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
o-Xylene	ug/l	ND	20	19.2	20.3	95.8	101	35-175	5.6	20
Xylenes, Total	ug/l	ND	60	55.39	59.82	92.3	99.7	35-175	7.7	20
4-Bromofluorobenzene (S)	%	95.5				100	98.8	74-125		30
1,2-Dichloroethane-d4 (S)	%	99.5				97.8	96.8	70-130		30
Toluene-d8 (S)	%	102				96.9	95.9	82-118		30

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: H10040613 : El Paso #1A

Project Number: El Paso #1A

QC Batch: WETS/1585

Analysis Method: SM 2540 C

QC Batch Method: SM 2540 C

Associated Lab Samples: H10040613001 H10040613002 H10040613003 H10040613004 H10040630001

METHOD BLANK: 42865

Analysis Date/Time Analyst: 05/03/2010 19:44 CFS

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

LABORATORY CONTROL SAMPLE & LCSD: 42866 42868

LCS Analysis Date/Time Analyst: 05/03/2010 19:44 CFS

LCSD Analysis Date/Time 05/03/2010 19:44 CFS

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD
Residue, Filterable (TDS)	mg/l	200	202.0	201.0	101	100	95-107	0.5	10

SAMPLE DUPLICATE: 42867

Original: H10040613001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	DF
WET CHEMISTRY						10
Residue, Filterable (TDS)	mg/l	10300	10300	0.2	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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QUALITY CONTROL DATA

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

QC Batch: IC/1281

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Associated Lab Samples: H10040613001 H10040613002 H10040613003 H10040613004 H10050054001

METHOD BLANK: 43247

Analysis Date/Time Analyst: 05/04/2010 09:41 CFS

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

LABORATORY CONTROL SAMPLE & LCSD: 43248 43249

LCS Analysis Date/Time Analyst: 05/04/2010 10:00 CFS

LCSD Analysis Date/Time 05/04/2010 21:51 CFS

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD
Sulfate	mg/l	10	10.73	10.67	107	107	85-115	0.5	20
Fluoride	mg/l	10	10.99	10.81	110	108	85-115	1.7	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 43250 43251 Original: H10050054001

MS Analysis Date/Time Analyst: 05/04/2010 19:20 CFS

MSD Analysis Date/Time Analyst: 05/04/2010 19:39 CFS

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
Sulfate	mg/l	ND	10	10.44	9.526	104	95.3	80-120	9.1	20
Fluoride	mg/l	ND	10	10.62	9.769	106	97.7	80-120	8.3	20

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



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Legend

(S) - Indicates analyte is a surrogate

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



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: H10040613 : El Paso #1A

Project Number: El Paso #1A

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
H10040613001	MW-1	SW-846 3010A	DIGM/1708	SW-846 6010B	ICP/1384
H10040613002	MW-2	SW-846 3010A	DIGM/1708	SW-846 6010B	ICP/1384
H10040613003	MW-3	SW-846 3010A	DIGM/1708	SW-846 6010B	ICP/1384
H10040613004	MW-4	SW-846 3010A	DIGM/1708	SW-846 6010B	ICP/1384
H10040613001	MW-1	SW-846 5030	MSV/1840	SW-846 8260B	MSV/1841
H10040613002	MW-2	SW-846 5030	MSV/1840	SW-846 8260B	MSV/1841
H10040613003	MW-3	SW-846 5030	MSV/1840	SW-846 8260B	MSV/1841
H10040613004	MW-4	SW-846 5030	MSV/1840	SW-846 8260B	MSV/1841
H10040613006	Trip Blank	SW-846 5030	MSV/1844	SW-846 8260B	MSV/1845
H10040613005	Duplicate	SW-846 8260B	MSV/1845		
H10040613001	MW-1	SM 2540 C	WETS/1585		
H10040613002	MW-2	SM 2540 C	WETS/1585		
H10040613003	MW-3	SM 2540 C	WETS/1585		
H10040613004	MW-4	SM 2540 C	WETS/1585		
H10040613001	MW-1	EPA 300.0	IC/1281		
H10040613002	MW-2	EPA 300.0	IC/1281		
H10040613003	MW-3	EPA 300.0	IC/1281		
H10040613004	MW-4	EPA 300.0	IC/1281		



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Sample Receipt Checklist

WorkOrder:	H10040613	Received By	LOG
Date and Time	04/29/2010 09:15	Carrier Name:	FEDEXS
Temperature:	2.5°C	Chilled By:	Water Ice

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

*VOA Preservation Checked After Sample Analysis

SPL Representative:
Client Name Contacted:
Client Instructions:

Contact Date & Time:



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SPL, Inc.
Analysis Request & Chain of Custody Record

H10040613

210500

Client Name: <u>Tetra Tech for ConocoPhillips</u>		City: <u>Albuquerque</u> State: <u>NM</u> Zip: <u>87110</u>									
Address: <u>6121 Indian Street Rd. 200</u>		Phone/Fax: <u>505-237-8440 / 505-237-8656</u>									
Client Contact: <u>Kelly Blonchard</u> Email: <u>kelly.blonchard@tetra-tech.com</u>		Project Name/No.: <u>E1 Paso #1A Qc Sampling</u>									
Site Name: <u>E1 Paso #1A</u>		Site Location: <u>Blanco, NM (San Juan County)</u>									
Invoice To: <u>ConocoPhillips</u>		Ph: _____									
SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	Requested Analysis		
MU-1	4-28-10	11:15		X	W	PG	40oz	1	5	X	BTX 8260B
Duplicate	4-28-10	11:15		X	W	PG	40oz	1	3	X	Dissolved Mn
MU-2	4-28-10	11:36		X	W	PG	40oz	1	5	X	Fl, S-O ₄ , TDS
MU-3	4-28-10	11:55		X	W	PG	40oz	1	5	X	
MU-4	4-28-10	12:35		X	W	PG	40oz	1	5	X	
bag blank					W	G	40	1	2	X	
JUST											
Client/Consultant Remarks: <u>Fluoride Detection limit not met</u>											
Laboratory remarks: _____											
Special Reporting Requirements: Results: Fax <input type="checkbox"/> Email <input type="checkbox"/> PDF <input type="checkbox"/> Special Detection Limits (specify):											
Standard QC <input checked="" type="checkbox"/> Level 3 QC <input type="checkbox"/> Level 4 QC <input type="checkbox"/> TX TRP <input type="checkbox"/> LA RECAP <input type="checkbox"/>											
1. Relinquished by Sampler: <u>Kelly Blonchard</u> date: <u>4-28-10</u> time: <u>1300</u>											
3. Relinquished by: _____ date: _____ time: _____											
5. Relinquished by: _____ date: <u>4/29/10</u> time: <u>9:15</u>											
2. Received by: _____ date: _____ time: _____											
4. Received by: _____ date: _____ time: _____											
6. Received by Laboratory: <u>[Signature]</u>											
Intact? <input checked="" type="checkbox"/> Temp: <u>25</u> PM review (initial): <u>BYN</u>											

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