

3R - 427

REPORT

10/15/2007

ConocoPhillips

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Burlington Resources,
A wholly owned subsidiary of ConocoPhillips

San Juan Business Unit
P.O. Box 4289
Farmington, NM 87402-4289
(505) 326-9700

October 15, 2007

Mr. Glenn Von Gonten
Hydrologist
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: El Paso #1A – Monitor Well Installation and Groundwater Sampling Report


Dear Mr. Von Gonten:

Attached is a copy of Burlington Resources' "Monitor Well Installation and Groundwater Sampling Report" for the El Paso #1A wellsite.

A temporary monitor well was installed at the subject wellsite. Soil and water samples were collected from this well and analyzed for TPH and BTEX constituents. None of the contaminants of concern analyzed for were above the regulatory limits set forth by either the NMOCD or the NMED. We request to plug the temporary monitor well and ask that no further action be required in regards to this incident.

If you have any questions or need additional information, please contact Gregg Wurtz at 505-326-9537.

Sincerely,



Monica D. Johnson
Sr. Environmental Scientist

Attachment: Monitor Well Installation and Groundwater Sampling Report

cc: Gregg Wurtz – ConocoPhillips Company – HSE Consultant
Facility and Correspondence Files

ENVIROTECH INC.

PRactical SOLUTIONS FOR A BETTER TOMORROW

MONITOR WELL INSTALLATION AND GROUNDWATER SAMPLING REPORT

AT:

**BURLINGTON RESOURCES
EL PASO #1A
SEC 20 TWP 29N RNG 9W
SAN JUAN COUNTY, NEW MEXICO**

30-045-2278

FOR:

**MR. GREGG WURTZ
CONOCOPHILLIPS
3401 EAST 30TH STREET
FARMINGTON, NEW MEXICO 87401**

**PROJECT No. 92115-250
SEPTEMBER 2007**

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

September 28, 2007

Project No. 92115-250

Mr. Gregg Wurtz
ConocoPhillips
3401 East 30th Street
Farmington, New Mexico 87401

Phone: (505) 326-9537
Fax: (505) 599-4005

RE: MONITOR WELL INSTALLATION AND GROUNDWATER SAMPLING REPORT

Dear Mr. Wurtz:

Enclosed please find one (1) original of the report entitled, *Monitor Well Installation and Groundwater Sampling Report*. This report details the drilling, monitor well installation, and groundwater sampling for the El Paso #1A well site in San Juan County, New Mexico.

We appreciate the opportunity to be of service. If you should have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.



Greg W. Crabtree, EIT
Environmental Engineer
gcrabtree@envirotech-inc.com

Enclosure: One (1) original

Cc: Client file 92115

**BURLINGTON RESOURCES
DRILLING AND GROUNDWATER SAMPLING REPORT
EL PASO #1A**

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 Section 4: Field Notes

INTRODUCTION

Envirotech, Inc. has completed the installation of a temporary monitor well at the El Paso #1A well site in San Juan County, New Mexico; *see Figure 1, Vicinity Map*. The drilling was completed to assess the potential for groundwater contamination at the site. Contaminated soil was excavated from the sites in late February of 2007. Envirotech was not present during this portion of the project. Two samples were collected from the excavation and analyzed by Envirotech's Laboratory for Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) via USEPA Method 8021B and Total Petroleum Hydrocarbons (TPH) via USEPA Method 8015. Results showed that all contaminants of concern analyzed, were below the most stringent NMOCD regulations. The analytical results are presented in *Section 1, Historical Analytical Results* and are also summarized in *Table 1, Summary of Analytical Results*. Water samples were not collected at the time of excavation.

DRILLING AND SOIL SAMPLING PERFORMED

On September 21, 2007 Envirotech personnel mobilized to the site to perform monitor well installation at the El Paso #1A well site. One (1) temporary monitor well was installed near the previously excavated area. A drawing of the area excavated was provided to Envirotech by Burlington and the placement of the monitor well was based on this drawing. A copy of this drawing is presented as *Figure 2*. Samples were taken every five (5) feet using a split spoon sampler. The samples were then analyzed with the use of an Organic Vapor Meter (OVM). A soil sample was also collected from the cuttings at the estimated soil water interface. A lithology log was completed on the boring and is included in *Section 2, Lithology Logs*. An updated site map with the estimated area of excavation and monitor well location was also completed and is presented as *Figure 3* in this document.

During the drilling process it appeared the soil water interface was at approximately 9.5-10 feet. The sample at this depth had the highest OVM at 15.5 ppm and was turned into the lab for analysis via USEPA Method 8015 for TPH and Method 8021B for BTEX. The sample was collected from the split spoon at a depth of 10 feet Below Ground Surface (BGS). All contaminants of concern from the analysis were below the most stringent OCD regulations of 100 ppm TPH, 10 ppm Benzene, and 50 ppm for Total BTEX. Laboratory Certificates are presented in *Section 3, Analytical Results* and summarized in *Table 1, Summary of Analytical Results*.

The aquifer in this area appears to be a perched aquifer with a shale layer acting as the aquitard. The perched aquifer is could be connected hydraulically to the aquifer associated with Largo Wash when the regional water table is high. The anticipated groundwater flow direction would therefore be to the West-Northwest following the flow of Largo wash.

GROUNDWATER SAMPLING

Envirotech returned to the site on the afternoon of September 21, 2007 to sample the well. Prior to sampling the well the water level was measured. The water level had come up to approximately seven (7) feet BGS. Three (3) well volumes were then bailed from the well using a new disposable bailer. Prior to sampling the temperature, conductivity, and pH was recorded; *see Section 4, Field Notes*. A water sample was then collected in 40-mL VOA vials and capped headspace free. The samples were placed on ice and transported to Envirotech's laboratory for

BTEX analysis. All contaminants of concern were below the drinking water standards set forth by the NMED. Benzene was present in the water sample at 1.4 ppb which is below the 10 ppb regulatory standard. Laboratory Certificates are presented in *Section 3, Analytical Results* and summarized in *Table 1, Summary of Analytical Results*.

SUMMARY AND CONCLUSIONS

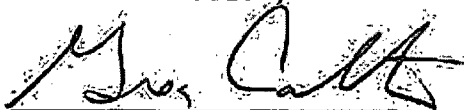
Envirotech has completed the installation of a temporary monitor well at the El Paso #1A well site. One temporary monitor well was completed to a depth of 10 feet BGS in the down gradient direction from the excavated area. Soil and water samples were collected from this well and analyzed at Envirotech's laboratory for TPH and BTEX constituents. None of the contaminants of concern analyzed for were above the regulatory limits set forth by either the NMOCD or the NMED. Envirotech recommends plugging of the temporary monitor well and a no further action determination be granted with regards to this incident.

STATEMENT OF LIMITATIONS

The undersigned has conducted this service at the above referenced site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

We appreciate the opportunity to be of service. Should you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,
ENVIROTECH, INC.

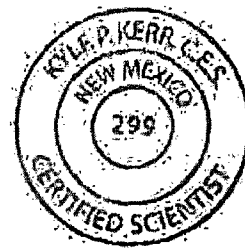


Greg Crabtree, EIT
Environmental Engineer
gcrabtree@envirotech-inc.com

Reviewed By:



Kyle P. Kerr
Chief Environmental Scientist/Manager
NMCES #299
kpkerr@envirotech-inc.com

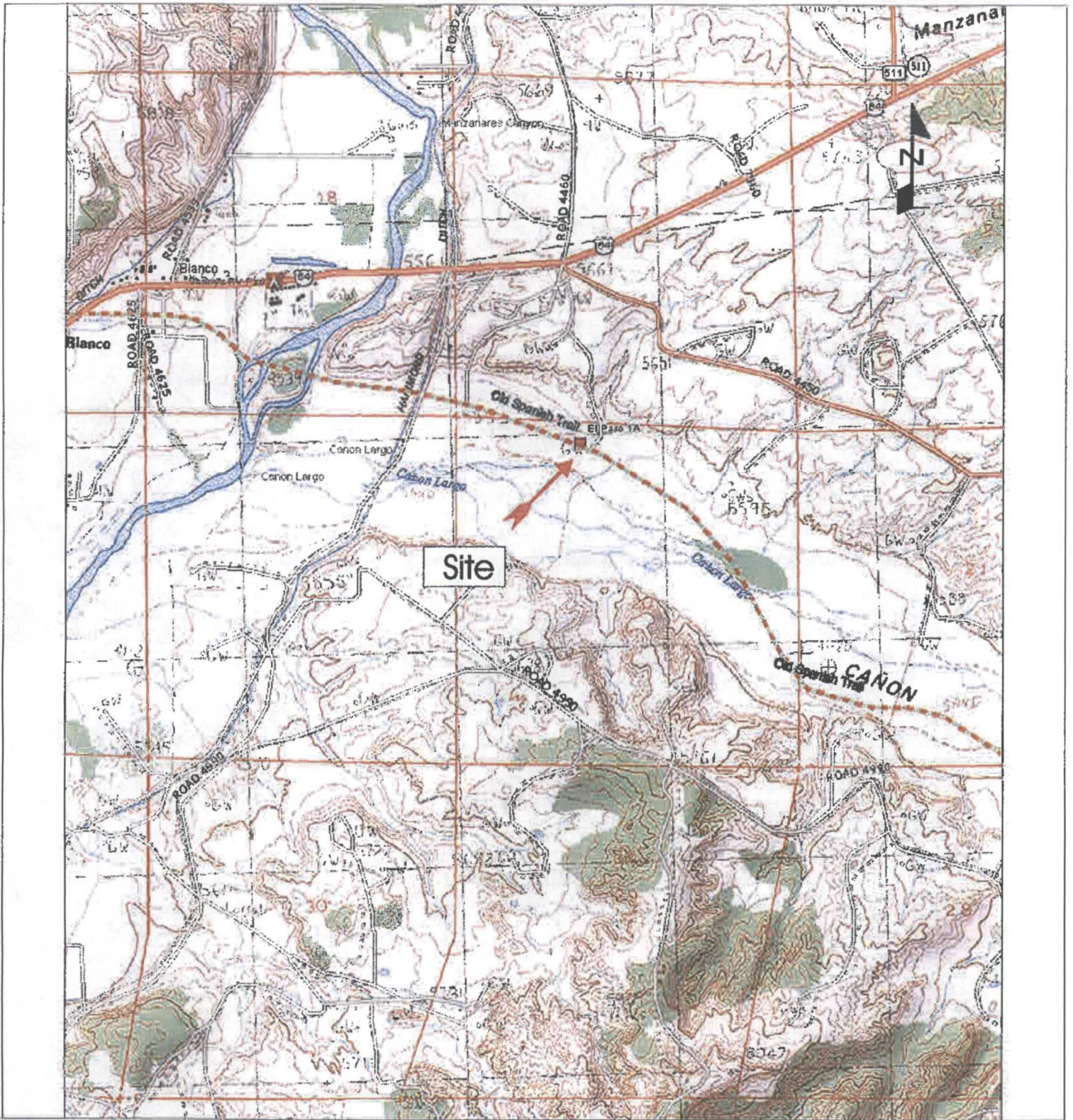


FIGURES

Figure 1, Vicinity Map

Figure 2, Burlington Site Map

Figure 3, Site Map



Source: Blanco, New Mexico 7.5 Minute U.S.G.S. Topographic Quadrangle Map
 Scale: 1:24,000 1" = 2000'

El Paso 1A
 Section 20, Township 29N, Range 09W

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
 5796 U.S. HIGHWAY 64
 FARMINGTON, NEW MEXICO 87401
 PHONE (505) 632-0615

Vicinity Map

Figure 1

PROJECT No 92115-250

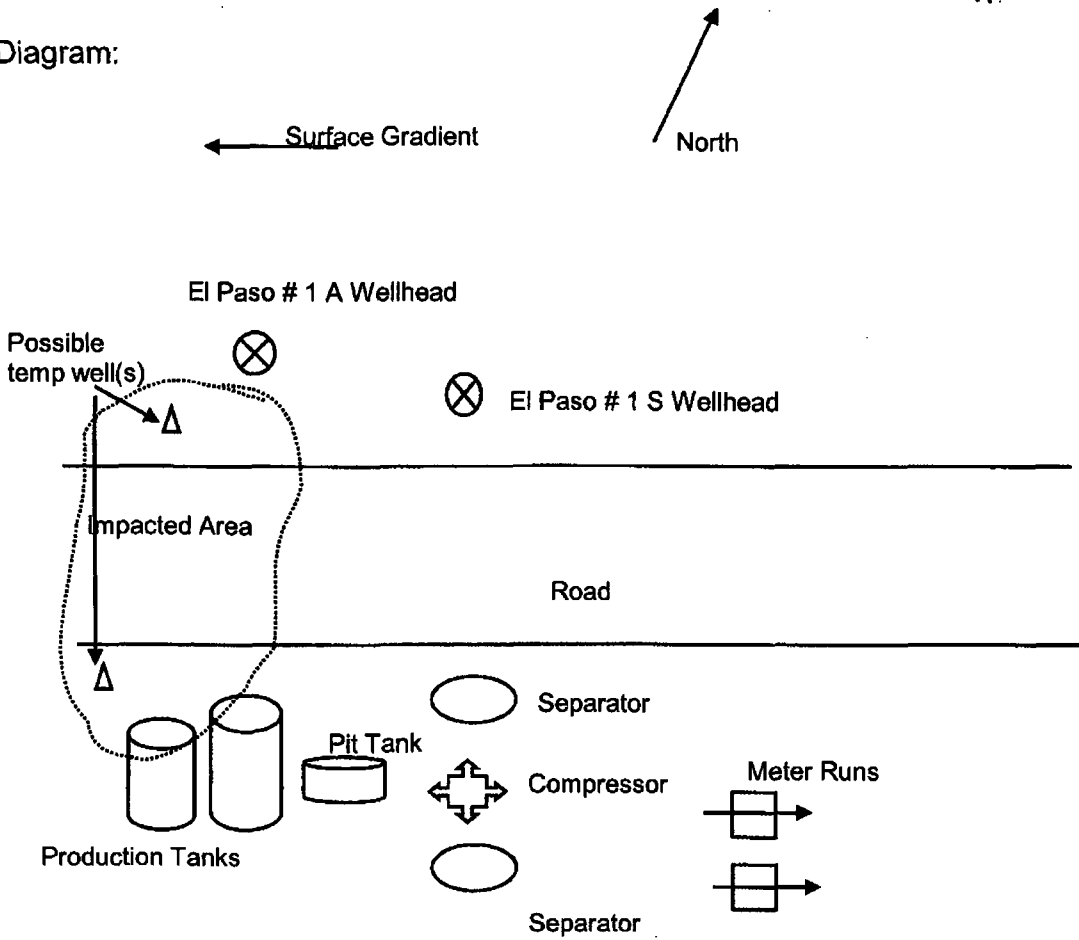
Date Drawn: 9/27/07

DRAWN BY:
 Greg Crabtree

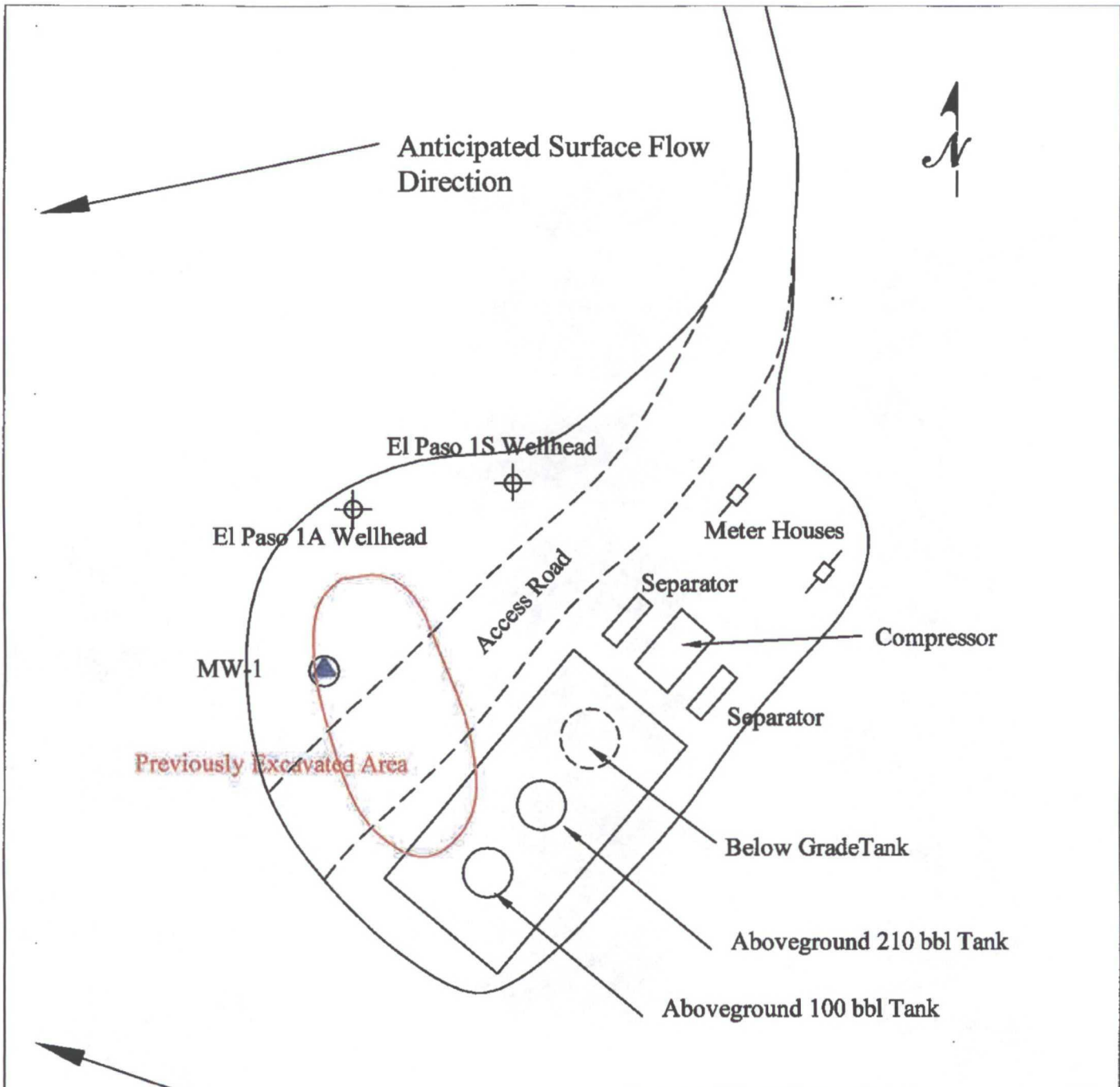
PROJECT MANAGER:
 Greg Crabtree

Burlington Resources
El Paso # 1 A
500' FNL & 1840' FWL
Sec. 20, Twn 29 N, Rng 9 W
Lease # NM 0560422
36°43.0' & 107°48.3'

Diagram:



* Please Note : Not to Scale



SITE MAP
Monitor Well Installation
 El Paso 1A
 Sec 20 Twp 29N Rng 09W
 San Juan County, New Mexico

SCALE: nts	FIGURE NO. 3	REV
PROJECT NO. 92115-250		

REVISIONS

NO.	DATE	BY	DESCRIPTION
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MAP DRWN	GWC	9/27/07	BASE DRWN	GWC	9/27/07
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ENVIRONMENTAL SCIENTISTS & ENGINEERS
ENVIROTECH
 5796 U.S. HIGHWAY 64, FARMINGTON, NM 87410 505-632-0615

TABLES

Table 1: Summary of Analytical Results

Table 1: Summary of Analytical Results

Soil Samples

Sample ID	Date	TPH (ppm)	Benzene (ppm)	Total BTEX (ppm)
NMOC D Regulations		100	10	50
SW corner @ 8'	2/27/2007	ND	ND	0.045
4-wall com @ 6'	2/27/2007	ND	ND	0.0022
10' BGS	9/21/2007	3.2	ND	0.069

Water Sample

Sample ID	Date	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)
NMOC D Regulations		10	750	750	620
MW-1	9/21/2007	ND	15.2	6	47.8

SECTION 1

Historical Analytical Results

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons


Client:	Burlington	Project #:	92115-001-2133
Sample ID:	4 - Wall Comp @ 6'	Date Reported:	02-28-07
Laboratory Number:	40210	Date Sampled:	02-27-07
Chain of Custody No:	2133	Date Received:	02-27-07
Sample Matrix:	Soil	Date Extracted:	02-27-07
Preservative:	Cool	Date Analyzed:	02-28-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

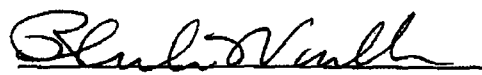
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **EI Paso 1S.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	02-28-07 QA/QC	Date Reported:	02-28-07
Laboratory Number:	40191	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-28-07
Condition:	N/A	Analysis Requested:	TPH

Cal Date	Lab Ref	Cal Ref	% Difference	Accept Range
07-11-05	1.6567E+003	1.6583E+003	0.10%	0 - 15%
07-11-05	1.8753E+003	1.8791E+003	0.20%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

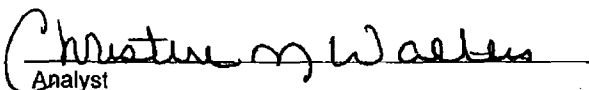
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	1.0	1.0	0.0%	0 - 30%
Diesel Range C10 - C28	4.6	4.5	2.2%	0 - 30%

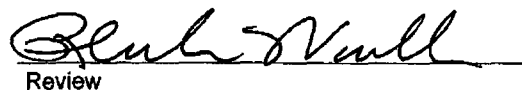
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Results	% Recovery	Accept Range
Gasoline Range C5 - C10	1.0	250	249	99.2%	75 - 125%
Diesel Range C10 - C28	4.6	250	245	96.1%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 40191, 40193 - 40194 and 40210.


Analyst


Review

ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Burlington	Project #:	92115-001-2133
Sample ID:	4 - Wall Comp @ 6'	Date Reported:	02-28-07
Laboratory Number:	40210	Date Sampled:	02-27-07
Chain of Custody:	2133	Date Received:	02-27-07
Sample Matrix:	Soil	Date Analyzed:	02-28-07
Preservative:	Cool	Date Extracted:	02-27-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	ND	1.7
Ethylbenzene	2.2	1.5
p,m-Xylene	ND	2.2
o-Xylene	ND	1.0
Total BTEX	2.2	

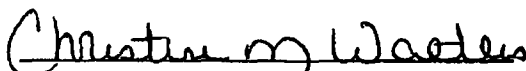
ND - Parameter not detected at the stated detection limit.

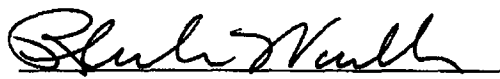
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: EI Paso 1S.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	02-28-BTEX QA/QC	Date Reported:	02-28-07
Laboratory Number:	40189	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-28-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	Cal RF	C-Cal RF	% Diff	Blank Conc	Detect Limit
			Accept Range 0 - 15%		
Benzene	2.5908E+007	2.5958E+007	0.2%	ND	0.2
Toluene	3.6223E+007	3.6296E+007	0.2%	ND	0.2
Ethylbenzene	1.9182E+007	1.9221E+007	0.2%	ND	0.2
p,m-Xylene	7.6713E+007	7.6866E+007	0.2%	ND	0.2
o-Xylene	3.2464E+007	3.2529E+007	0.2%	ND	0.1

Duplicate Conc (ug/Kg)	Sample	Duplicate	% Diff	Accept Range	Detect Limit
Benzene	29.6	28.6	3.4%	0 - 30%	1.8
Toluene	18.0	17.0	5.6%	0 - 30%	1.7
Ethylbenzene	33.4	32.4	3.0%	0 - 30%	1.5
p,m-Xylene	137	136	0.7%	0 - 30%	2.2
o-Xylene	51.4	50.4	1.9%	0 - 30%	1.0

Spike Conc (ug/Kg)	Sample	Amount Spiked	Spiked Sample	Recovery	Accept Range
Benzene	29.6	50.0	79.3	99.6%	39 - 150
Toluene	18.0	50.0	65.0	95.6%	46 - 148
Ethylbenzene	33.4	50.0	75.0	89.9%	32 - 160
p,m-Xylene	137	100	230	97.1%	46 - 148
o-Xylene	51.4	50.0	90.0	88.8%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 40189 - 40191, 40193 - 40194 and 40210.

Christine M. Wacker
Analyst

Blair K. Vail
Review

ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

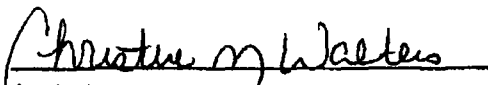
Client:	Burlington Resources	Project #:	92115-001-2123
Sample ID:	SW Corner @ 8'	Date Reported:	02-26-07
Laboratory Number:	40182	Date Sampled:	02-26-07
Chain of Custody No:	2123	Date Received:	02-26-07
Sample Matrix:	Soil	Date Extracted:	02-26-07
Preservative:	Cool	Date Analyzed:	02-26-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

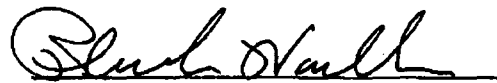
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **El Paso 1S Spill.**


Analyst


Review

ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	02-26-07 QA/QC	Date Reported:	02-26-07
Laboratory Number:	40174	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-26-07
Condition:	N/A	Analysis Requested:	TPH

	Cal Date	I-Cal RE	C-Cal RE	% Difference	Accept Range
Gasoline Range C5 - C10	07-11-05	1.3013E+003	1.3026E+003	0.10%	0 - 15%
Diesel Range C10 - C28	07-11-05	1.4456E+003	1.4485E+003	0.20%	0 - 15%

Blank Conc: (mg/L = mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

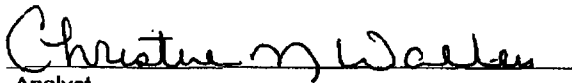
Duplicate Conc: (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	47.9	47.6	0.6%	0 - 30%
Diesel Range C10 - C28	122	121	0.6%	0 - 30%

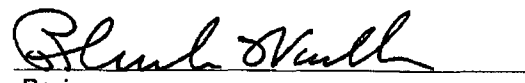
Spike Conc: (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	47.9	250	297	99.8%	75 - 125%
Diesel Range C10 - C28	122	250	372	100.0%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 40174 - 40180 and 40182


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Burlington Resources	Project #:	92115-001-2123
Sample ID:	SW Corner @ 8'	Date Reported:	02-26-07
Laboratory Number:	40182	Date Sampled:	02-26-07
Chain of Custody:	2123	Date Received:	02-26-07
Sample Matrix:	Soil	Date Analyzed:	02-26-07
Preservative:	Cool	Date Extracted:	02-26-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	6.1	1.7
Ethylbenzene	ND	1.5
p,m-Xylene	21.8	2.2
o-Xylene	17.8	1.0
Total BTEX	45.7	

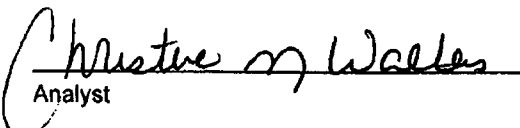
ND - Parameter not detected at the stated detection limit.


Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: El Paso 1S Spill.


Analyst


Review

ENVIROTECH LABS

Practical Solutions for a Better Tomorrow

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	02-26-BTEX QA/QC	Date Reported:	02-26-07
Laboratory Number:	40174	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-26-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	PCal RF	CCal RF	%Diff	Blank Conc	Detect Limit
--	---------	---------	-------	---------------	-----------------

Benzene	3.1113E+007	3.1178E+007	0.2%	ND	0.2
Toluene	5.0741E+007	5.0843E+007	0.2%	ND	0.2
Ethylbenzene	2.3975E+007	2.4023E+007	0.2%	ND	0.2
p,m-Xylene	1.0385E+008	1.0406E+008	0.2%	ND	0.2
o-Xylene	4.6898E+007	4.6992E+007	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
-------------------------	--------	-----------	-------	--------------	--------------

Benzene	58.4	57.4	1.7%	0 - 30%	1.8
Toluene	80.0	79.0	1.3%	0 - 30%	1.7
Ethylbenzene	90.0	89.0	1.1%	0 - 30%	1.5
p,m-Xylene	900	900	0.0%	0 - 30%	2.2
o-Xylene	130	127	2.3%	0 - 30%	1.0

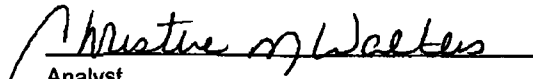
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
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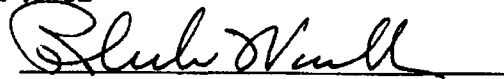
Benzene	58.4	50.0	108	99.7%	39 - 150
Toluene	80.0	50.0	120	92.3%	46 - 148
Ethylbenzene	90.0	50.0	130	92.9%	32 - 160
p,m-Xylene	900	100	990	99.0%	46 - 148
o-Xylene	130	50.0	170	94.4%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 40174 - 40178 and 40182


Analyst

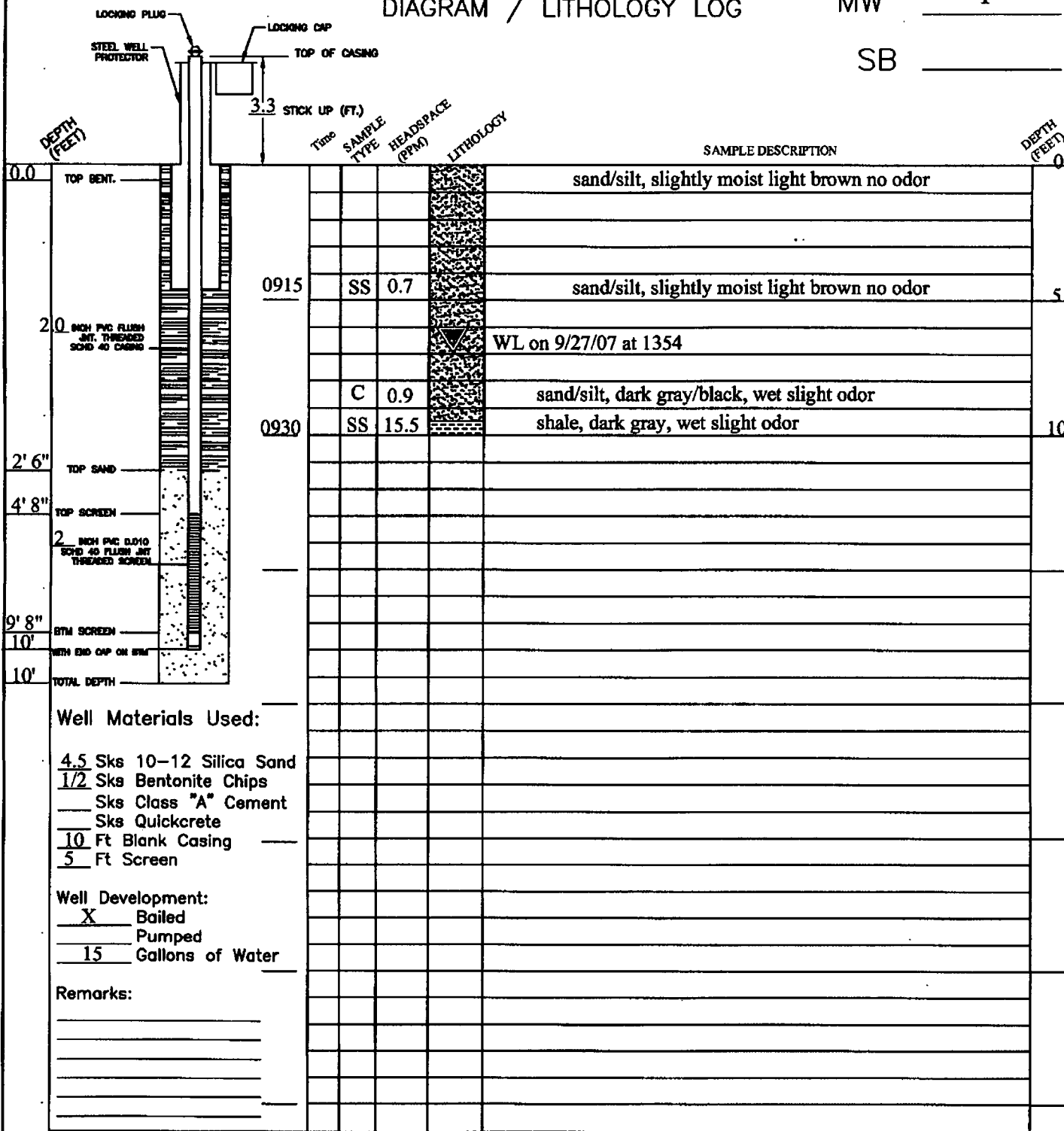

Review

SECTION 2

Lithology Log

ABOVE GRADE WELL COMPLETION
DIAGRAM / LITHOLOGY LOG

MW 1
SB _____



DRILLER: Danny Padilla BIT SIZE: 7 7/8" LOCATION: El Paso #1A
 HELPER: Robert Salazar TOTAL BORING DEPTH: 10 ELEVATION: _____
 DRILLING COMPANY: Envirotech DATE STARTED: 9/21/07 DATE COMPLETED 9/21/07
 DRILLING METHOD: HSA SAMPLER TYPE: Split Spoon/Cuttings GEOLOGIST: Greg Crabtree

Burlington Resources El Paso #1A Sec 20 Twp 29N Rng 9W		ENVIROTECH INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS 5798 U.S. HIGHWAY 64 FARMINGTON, NEW MEXICO 87401 (505) 832-0815 <small>AbvGndlog.dwg</small>		MW-1	
REVISIONS BY _____ DATE _____ BY _____ DATE _____	JOB # <u>92115-250</u>	DATE <u>9/27/07</u>	DRAWN <u>GWC</u>	PAGE <u>1</u>	OF <u>1</u>
		SCALE _____	APPROVED _____		

SECTION 3

Analytical Results

ENVIROTECH LABS

IMPRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

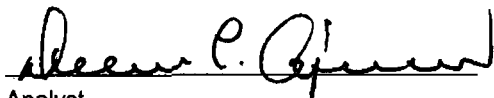
Client:	Burlington	Project #:	92115-250
Sample ID:	10' BGS	Date Reported:	09-25-07
Laboratory Number:	43139	Date Sampled:	09-21-07
Chain of Custody No:	3420	Date Received:	09-21-07
Sample Matrix:	Soil	Date Extracted:	09-24-07
Preservative:	Cool	Date Analyzed:	09-25-07
Condition:	Cool & Intact	Analysis Requested:	8015 TPH

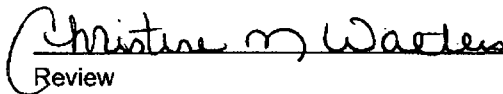
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.7	0.2
Diesel Range (C10 - C28)	2.5	0.1
Total Petroleum Hydrocarbons	3.2	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Elpaso #1A**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	09-25-07 QA/QC	Date Reported:	09-25-07
Laboratory Number:	43138	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-25-07
Condition:	N/A	Analysis Requested:	TPH

	Cal Date	Cal RE	Cal RE	% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	9.9960E+002	1.0000E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.9960E+002	1.0000E+003	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

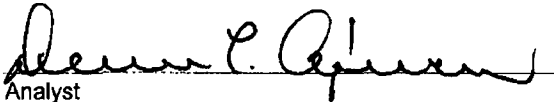
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	25.6	25.4	0.8%	0 - 30%
Diesel Range C10 - C28	8.4	8.4	0.0%	0 - 30%

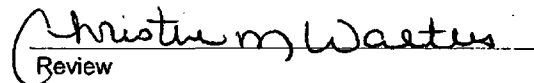
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	25.6	250	275	99.9%	75 - 125%
Diesel Range C10 - C28	8.4	250	258	99.9%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 43138 - 43139, 43141


Analyst


Review

ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Burlington	Project #:	92115-250
Sample ID:	10' BGS	Date Reported:	09-25-07
Laboratory Number:	43139	Date Sampled:	09-21-07
Chain of Custody:	3420	Date Received:	09-21-07
Sample Matrix:	Soil	Date Analyzed:	09-25-07
Preservative:	Cool	Date Extracted:	09-24-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	15.2	1.0
Ethylbenzene	6.0	1.0
p,m-Xylene	37.7	1.2
o-Xylene	10.1	0.9
Total BTEX	69.0	


ND - Parameter not detected at the stated detection limit.

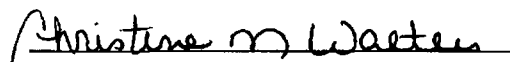
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Elpaso #1A


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	09-25-BTEX QA/QC	Date Reported:	09-25-07
Laboratory Number:	43138	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-25-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	F-Cal/RF	C-Cal/RF	%Diff	Blank Conc	Detect Limit
			Accept Range: 0 - 15%		
Benzene	1.2169E+008	1.2194E+008	0.2%	ND	0.1
Toluene	1.0804E+008	1.0825E+008	0.2%	ND	0.1
Ethylbenzene	8.5790E+007	8.5962E+007	0.2%	ND	0.1
p,m-Xylene	1.6633E+008	1.6666E+008	0.2%	ND	0.1
o-Xylene	7.9506E+007	7.9666E+007	0.2%	ND	0.1

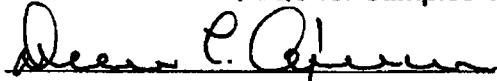
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	5.4	5.4	0.0%	0 - 30%	0.9
Toluene	303	302	0.3%	0 - 30%	1.0
Ethylbenzene	188	187	0.5%	0 - 30%	1.0
p,m-Xylene	1,330	1,320	0.8%	0 - 30%	1.2
o-Xylene	444	443	0.2%	0 - 30%	0.9

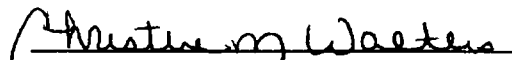
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	5.4	50.0	55.3	99.8%	39 - 150
Toluene	303	50.0	352	99.8%	46 - 148
Ethylbenzene	188	50.0	238	99.8%	32 - 160
p,m-Xylene	1,330	100	1,420	99.3%	46 - 148
o-Xylene	444	50.0	493	99.8%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photolization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 43138 - 43139


Analyst


Review

ENVIROTECH LABS

Practical Solutions for a Better Tomorrow

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Burlington	Project #:	92115-250
Sample ID:	MW - 1	Date Reported:	09-25-07
Chain of Custody:	3420	Date Sampled:	09-21-07
Laboratory Number:	43140	Date Received:	09-21-07
Sample Matrix:	Water	Date Analyzed:	09-25-07
Preservative:	Cool / HCL	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	1.4	1	0.2
Toluene	0.5	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	0.3	1	0.2
o-Xylene	ND	1	0.1

Total BTEX 2.2


ND - Parameter not detected at the stated detection limit.

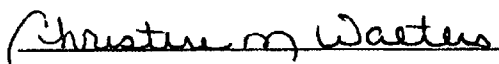
Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	97 %
	1,4-difluorobenzene	97 %
	4-bromochlorobenzene	97 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: Elpaso #1A


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	09-25-BTEX QA/QC	Date Reported:	09-25-07
Laboratory Number:	43140	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-25-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	C-Cal/RF	C-Cal/RF	%Diff	Blank Conc.	Detect. Limit
		Accept Range	0 - 15%		
Benzene	1.2157E+008	1.2194E+008	0.30%	ND	0.2
Toluene	1.0793E+008	1.0825E+008	0.30%	ND	0.2
Ethylbenzene	8.5704E+007	8.5962E+007	0.30%	ND	0.2
p,m-Xylene	1.6616E+008	1.6666E+008	0.30%	ND	0.2
o-Xylene	7.9427E+007	7.9666E+007	0.30%	ND	0.1

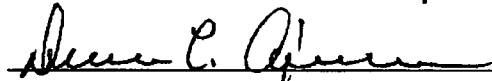
Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff	Accept Limit
Benzene	1.4	1.4	0.0%	0 - 30%
Toluene	0.5	0.5	0.0%	0 - 30%
Ethylbenzene	ND	ND	0.0%	0 - 30%
p,m-Xylene	0.3	0.3	0.0%	0 - 30%
o-Xylene	ND	ND	0.0%	0 - 30%

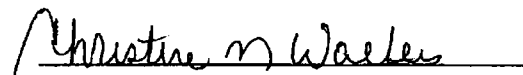
Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	1.4	50.0	51.3	99.8%	39 - 150
Toluene	0.5	50.0	50.4	99.8%	46 - 148
Ethylbenzene	ND	50.0	50.1	100.1%	32 - 160
p,m-Xylene	0.3	100	100	99.8%	46 - 148
o-Xylene	ND	50.0	50.0	100.0%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for sample 43139


Analyst


Review

CHAIN OF CUSTODY RECORD

3420

Client:		Project Name / Location:		ANALYSIS / PARAMETERS										Sample Cool	Sample Intact			
Burlington		El Paso # 1A		TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)						
Client Address:		Sampler Name:		Sample No. / Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No. / Volume of Containers	Preservative								
3401 E. 30th		G. Crabtree		10' BGS	9/21/07	0930	43139	Soil	1-4oz	Fe								
Client Phone No.:		Client No.:		MW-1	9/21/07	1430	43140	WATER	2-40mL									
326-9700		9245-250																
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		
<i>[Signature]</i>		9/21/07		1545		<i>[Signature]</i>		9/21/07		1545		<i>[Signature]</i>		9/21/07		1545		
Relinquished by: (Signature)																		
Relinquished by: (Signature)																		

ENVIROTECH INC.

5796 U.S. Highway 64 • Farmington, New Mexico 87401 • (505) 632-0615

SECTION 4

Field Notes

