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REPORTS

DATE:

Jan. 2009

Basin Environmental Service Technologies, LLC

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REMEDIATION SUMMARY

AND

Environmental Bureau Oil Conservation Division

JAN 28 2009

SOIL CLOSURE REQUEST

PLAINS MARKETING, L.P. (231735) Monument Barber 10-Inch Sour Lea County, New Mexico Plains SRS # 2000-10655 UNIT M (SW/SW), Section 32, Township 19 South, Range 37 East NMOCD Reference # 1RP-03/38

Prepared For:

Plains Marketing, L.P. 333 Clay Street Suite 1600 Houston, Texas 77002

Prepared By: Basin Environmental Service Technologies, LLC

January 2009

Curt D. Stanley Project Manager

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Figure 1 – Site Location Map Figure 2 – Site Map Figure 3 – Sample Location Map

TABLES

Table 1 - Recent Concentrations of BTEX and TPH in Soil

APPENDICES

Appendix A - Laboratory Reports Appendix B - Photographs Appendix C - Release Notification and Corrective Action (Form C-141)

INTRODUCTION AND BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Plains Marketing, L.P. (Plains), has prepared this Remediation Summary and Soil Closure Request for the release site known as Monument Barber 10-Inch Sour (SRS # 2000-10655). The site is located in Unit Letter "M" (SW ¼ SW ¼), Section 32, Township 19 South, Range 37 East, approximately two (2) miles south of Monument in Lea County, New Mexico. The property is owned by Barbara Darnell. The site, formerly the responsibility of Enron Oil Trading and Transportation (EOTT) is now the responsibility of Plains. A Site Location and Site Map are provided as Figure 1 and Figure 2, respectively. The Release Notification and Corrective Action is provided as Appendix C.

Documentation previously submitted to the New Mexico Oil Conservation Division (NMOCD) is summarized below. Please reference previously submitted documentation for soil boring and monitor well logs, tables and laboratory reports and other details prior to May 2006.

On August 7, 2000, a crude oil release from a ten (10) inch diameter pipeline was discovered on the subject property. The release occurred following the installation of a new section of pipeline and the release flowed north to south from the release point into a previously excavated area. A surface stain measuring approximately hundred (100) feet in length and eight (8) feet in width was observed. The volume of the release was approximately 1,600 barrels and 1,300 barrels was recovered during initial response activities, resulting in a net loss of approximately 300 barrels of crude oil. The area adjacent to the release is dominated by oil and gas production facilities and other historical non-EOTT related crude oil releases have been documented in the immediate vicinity of the Monument Barber 10-Inch release site.

Following the release, EOTT conducted initial response and site assessment activities as required by the NMOCD's *Guidelines for Remediation of Leaks, Spills and Releases*, (NMOCD, 1993).

Following the completion of initial response activities, including the repair of the pipeline and the removal of crude oil from the previously excavated area, a backhoe was utilized to excavate crude oil saturated soil and begin the horizontal delineation of impact of the site. A trench approximately 276 feet in length and twenty-one (21) feet in width was extended along and below the pipeline to the south of the release point. The main excavation, in the vicinity of the release point, measured approximately 72 feet in width and 35 feet in length and ten (10) feet in depth. A trench, measuring approximately twenty-seven (27) feet in length was extended to the west and perpendicular to the main excavation. Following the initial excavation activities, visual and olfactory evidence indicated impacted soil was present beyond the depth of the initial excavations and additional subsurface investigation would be required. The saturated soil excavated during the initial excavation activities was transported to an offsite NMOCD approved disposal facility. A limited quantity of impacted soil was stockpiled to the west of the initial excavation.

On August 8, 2000, a previous contactor began a subsurface soil investigation to delineate the vertical and horizontal extent of impact at the release site. A total of thirty-four (34) soil borings were advanced adjacent to the release point to a maximum depth of 35 feet bgs. Soil samples

were collected at five (5) foot drilling intervals and a portion of each soil sample was field screened using a Photo Ionization Detector (PID). Based on the results of the field screening, selected soil samples were submitted to the laboratory for analysis. Laboratory submitted soil samples were analyzed for total petroleum hydrocarbons (TPH) using EPA SW 846-8015 modified. Selected soil samples exhibiting PID readings in excess of 100 ppm were analyzed for benzene, toluene, ethyl-benzene and xylene (BTEX) constituents using EPA SW 826-8021b, as well as TPH. Based on the field screening and laboratory analytical results, hydrocarbon impacted soil in excess of the NMOCD regulatory standard was determined to exist to a depth of eight (8) to ten (10) feet bgs in an area immediately adjacent to the release point.

Of the thirty-four (34) soil borings advanced at the site, two (2) soil borings were completed as recovery wells (RW-1 and RW-2) and four (4) soil borings were completed as monitor wells (MW-1 through MW-4).

In May 2006, a previous contractor submitted a *Soil Remediation Work Plan* to the NMOCD Santa Fe Office; this Work Plan was designed to address the remaining soil issues at the site. On February 19, 2008, the NMOCD Santa Fe Office approved the Soil Remediation Work Plan.

NMOCD SITE CLASSIFICATION

A search of the New Mexico Office of the State Engineer (NMOSE) database indicates the average depth to groundwater is approximately thirty (30) feet below ground surface (bgs) in the section. The depth to groundwater at the Monument Barber 10-Inch Sour release site results in a score of twenty (20) being assigned to the site based on the New Mexico Oil Conservation Division (NMOCD) depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

There is no surface water body located within 1,000 feet of the site. Based on the NMOCD ranking system zero (0) points will be assigned to the site as a result of the criteria.

The NMOCD guidelines indicate the idle Monument Barber 10-Inch Sour release site has a ranking score of greater than 19. Based on this score, the soil remediation levels for a site with a ranking score of greater than 19 points are as follows:

- Benzene 10 mg/Kg (ppm)
- BTEX 50 mg/Kg (ppm)
- TPH 100 mg/Kg (ppm)

SUMMARY OF RECENT FIELD ACTIVITIES

On June 25, 2008, Basin commenced the excavation activities outlined in the *Soil Remediation Work Plan*. The release site was excavated to a depth of approximately sixteen (16) feet bgs, with the exception of the most southern area of the excavation which was excavated to a depth of

approximately twelve (12) feet bgs. Impacted soil was stockpiled adjacent to the excavation pending final disposition.

On July 7, 2008, four (4) delineation soil samples (East Wall-1, West Wall-1, East Wall-2 and West Wall-2) were collected and submitted to the laboratory to evaluate the status of the excavation. The analytical results indicated soil samples East Wall-1, West Wall-1 and East Wall-2 exhibited TPH concentrations below the laboratory method detection limit of 15 mg/Kg. Soil sample West Wall-2 exhibited a TPH concentration of 6,333 mg/Kg, this soil was excavated and added to the excavation stockpiles. Recent concentrations of benzene, BTEX and TPH are summarized in Table 1. Laboratory analytical reports are provided as Appendix A.

On July 31, 2008, a soil sample (Stockpile A) was collected from the onsite stockpile to evaluate the status of the stockpile and the potential use of the stockpile as backfill material. The analytical results indicated the TPH concentration of the composite stockpile soil sample was 4,558 mg/Kg. Based on the analytical results this soil stockpile was transported to an NMOCD approved land farm.

On August 8, 2008, two (2) soil samples (Stockpile 1-A and Stockpile 2-A) were collected from the onsite stockpiles to evaluate the status of the stockpile and the potential use of the stockpile as backfill material. The analytical results indicated the TPH concentration of the composite stockpile soil samples were 2,162 mg/Kg and 3,738 mg/Kg in soil samples Stockpile 1-A and Stockpile 2-A, respectively. Based on the analytical results this soil stockpile was transported to an NMOCD approved land farm.

On August 11, 2008, twelve (12) confirmation soil samples (NSW-1@14', NSW-2@14', ESW-1@14', ESW-2@14', ESW-3@14', ESW-3@14', WSW-2@14', WSW-1@14' SCSW-1@14' and SCSW-2@14') were collected from the excavation sidewalls. The laboratory analytical results indicated benzene, BTEX and TPH concentrations were below the appropriate MDL in all twelve (12) confirmation sidewall soil samples, with the exception of soil sample ESW-1@14' which exhibited a TPH concentration of 17.2 mg/Kg.

On August 14, 2008, three (3) confirmation sidewall soil samples (ESW-5@10', WSW-5@10', and SSW-1@10') and one (1) confirmation floor soil sample (Floor-1) were collected from the southern end of the excavation. The analytical results indicated benzene concentrations were below the appropriate MDL in each of the four (4) soil samples. BTEX concentrations were below the MDL in soil samples WSW-5@10', SSW-1@10' and Floor-1 and 0.0117 mg/Kg in soil sample ESW-5@10'. The TPH concentration ranged from below the MDL of 17.4 mg/Kg in soil sample SSW-1@10' to 98.7 mg/Kg in soil sample WSW-5@10'. Based on the analytical results of the four (4) soil samples, the southernmost extent of the excavation was delineated.

On August 25, 2008, five (5) confirmation floor soil samples (Floor-2@16', Floor-3@16', Floor-4@16', Floor-5@16' and Floor-6@16') were collected from the excavation floor. The laboratory analytical results indicated all five (5) confirmation soil samples exhibited benzene and BTEX constituent concentrations below the appropriate laboratory MDL. TPH concentrations ranged from below the laboratory MDL in soil sample Floor-2@16' to 35.5 mg/Kg in soil sample Floor-5@16'.

The laboratory analytical results indicated all sidewall and excavation floor confirmation soil samples were below the NMOCD regulatory standard for benzene (10 mg/Kg), BTEX (50 mg/Kg) and TPH (100 mg/Kg). Based on the analytical results of the confirmation soil samples, a risk-based closure utilizing a poly liner was not required at the release site. Approximately 10,526 cubic yards of excavated soil was transported to the C & C Land farm (NMOCD Permit NM-01-0012) located in Monument, New Mexico. Non-impacted native soil was purchased from a local landowner to backfill the excavation. Following the backfill activities, the site was contoured to fit the surrounding topography. On October 8, 2008, the remediation site was seeded with vegetation suitable to the landowner.

SOIL CLOSURE REQUEST

Based on the analytical results of confirmation soil samples collected from the floor and sidewalls of the excavation, Basin recommends Plains provide the NMOCD Santa Fe Office a copy of this Remediation Summary and Soil Closure Request and request the NMOCD grant soil closure to the Monument Barber 10-Inch Sour release site.

LIMITATIONS

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Basin Environmental Service Technologies, LLC has prepared this Remediation Summary and Soil Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Service Technologies, LLC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Service Technologies, LLC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Service Technologies, LLC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Service Technologies, LLC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Plains Marketing, L.P. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC and/or Plains Marketing, L.P.

DISTRIBUTION:

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Copy 1:	Edward Hansen New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505
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Copy 3:	Jeff Dann Plains Marketing, L.P. 333 Clay Street, Suite 1600 Houston, Texas 77002 jpdann@paalp.com
Copy 4:	Jason Henry Plains Marketing, L.P. 2530 State Highway 214 Denver City, Texas 79702 jhenry@paalp.com
Copy 5:	Curt Stanley Basin Environmental Consulting P.O. Box 381 Lovington, New Mexico 88260 cdstanley@basin-consulting.com

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Figures

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Tables

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TABLE 1

CONCENTRATIONS OF BENZENE, BTEX & TPH IN SOIL MONUMENT BARBER 10" SOUR MONUMENT, NEW MEXICO NMOCD REFERENCE 1R-0338

All measurments recorded in mg/Kg.

					Meth	hods: EPA S	W 846-8021E	3, 5030			EPA SV	N 846-8015M	
SAMPLE	SAMPLE	SAMPLE	SOIL			ЕТНҮС-	-d,E		ì	GRO	DRO	ORO	TOTAL TPH
DATE	LOCATION	(has)	STATUS	BENZENE	(malka)	BENZENE	XYLENE	o-XYLENE	BTEX	C ₆ -C ₁₂	C ₁₂ -C ₂₈	C ₂₈ -C ₃₅	င်းငိုး
		(eBn)		(64/6)	(By/Bill)	(mg/Kg)	(mg/Kg)	(By Bill)	ไล้มก็แป	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
80/20/20	East Wall-1	14'	In-Situ	1	,	,		•	-	<15.0	<15.0	<15.0	<15.0
07/07/08	West Wall -1	14'	In-Situ	'		'			•	<15.0	<15.0	<15.0	<15.0
07/07/08	East Wall-2	14'	In-Situ	'		,		, '		<15.0	<15.0	<15.0	<15.0
07/07/08	West Wall -2	14	Excavated		•	,				1410	4470	453	6,333
1. S.	and the second second					Sala B. S. Carlor	"" " have been		Real Frank Comerce		A CALL AND A	S PORTS	
07/31/08	Stockpile A		Transported	•	•				1	633	3390	535	4,558
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08/08/08	Stockpile 1-A		Transported			,	•	1		405	1500	257	2,162
08/08/08	Stockpile 2-A		Transported	•				1		768	2540	430	3,738
				14. 7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	State of the state of the state		State State	13. 14 14 18 18 18 18 18 18 18 18 18 18 18 18 18		S. C. S. Sec.	States of the	Start Sping St.	The Content of the
08/11/08	NSW-1 @ 14'	14'	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.2	<17.2	<17.2	<17.2
08/11/08	NSW-2 @ 14'	14'	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.5	<16.5	<16.5	<16.5
08/11/08	ESW-1 @ 14'	14'	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.3	17.2	<16.3	17.2
08/11/08	ESW-2 @ 14'	14'	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<15.7	<15.7	<15.7	<15.7
08/11/08	ESW-3 @ 14'	14'	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<15.5	<15.5	<15.5	<15.5
08/11/08	ESW-4 @ 14'	14'	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.6	<17.6	<17.6	<17.6
08/11/08	WSW-4 @ 14'	14'	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	<16.2	<16.2	<16.2
08/11/08	WSW-3 @ 14'	14'	In-Situ	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<18.2	<18.2	<18.2	<18.2
08/11/08	WSW-2 @ 14'	14'	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.3	<17.3	<17.3	<17.3
08/11/08	WSW-1 @ 14'	14'	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	<16.2	<16.2	<16.2
08/11/08	SCSW-1 @ 14'	14'	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	<16.4	<16.4	<16.4
08/11/08	SCSW-2 @ 14'	14'	In-Situ	<0.0056	<0.0112	<0.0056	<0.0112	<0.0056	<0.0112	<16.8	<16.8	<16.8	<16.8
A. C. S. S. S. S.	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	State State		1. 1. S.	1. N. C. S. S.		1999 - Barris	1	82 C. S. S.	State State	
08/14/08	ESW-5 @ 10'	10'	In-Situ	<0.0011	<0.0022	0.0018	0.0076	0.0023	0.0117	<16.7	95.9	<16.7	95.9
08/14/08	WSW-5 @ 10	10'	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	98.7	<16.6	98.7
08/14/08	SSW-1 @ 10'	10'	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0011	<0.0023	<17.4	<17.4	<17.4	<17.4
	THE REPORT OF	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Carlos & States	1. Stor William	1 2 2 2 2 2 2	A State of the sta		S. S. Street &	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Sec. Burger	is substant a	LA TENES	A S. W. S. L. Walker
08/14/08	Floor-1	12'	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.5	30.1	<16.5	30.1
14 C 14 A			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	19 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -		and the second second	and the second			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	1.2024.52	1 - 2 - 1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 -	Section of the
08/25/08	Floor-2@16'	16'	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<15.0	<15.0	<15.0	<15.0
08/25/08	Floor-3@16'	16'	In-Situ	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<15.0	30.6	<15.0	30.6
08/25/08	Floor-4@16'	16'	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.0	17.2	<15.0	17.2
08/25/08	Floor-5@16'	16'	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<15.0	35.5	<15.0	35.5
08/25/08	Floor-6@16'	16'	In-Situ	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<15.0	22.7	<15.0	22.7
				5 . 8. 2 × 2 × 4 × 5				100 100 100 100 100 100 100 100 100 100	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		1. 2. 4 4	States and	
ŇM	OCD REGULATO	RY STANC	DARD	10					50				100
BOLD indic	ates concentration	PACARONIC	NMOCD redu	latory stand	ards								

Appendices

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Appendix A Laboratory Reports

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Analytical Report 307395

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PLAINS ALL AMERICAN EH&S

Project Manager: Camille Reynolds

Monument Barber 10" Sour 2000-10655

10-JUL-08

E NVIRONMENTAL

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

North Carolina certification numbers: Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta



10-JUL-08



Project Manager: **Camille Reynolds PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **307395 Monument Barber 10'' Sour** Project Address: Lea County, NM

Camille Reynolds:

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We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 307395. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 307395 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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Sample Cross Reference 307395

PLAINS ALL AMERICAN EH&S, Midland, TX

Monument Barber 10" Sour

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East Wall - 1	S	Jul-07-08 15:00		307395-001
West Wall - 1	S	Jul-07-08 15:05		307395-002
East Wall - 2	S	Jul-07-08 15:10		307395-003
West Wall - 2	S	Jul-07-08 15:15		307395-004

ě Certificate of Analysis Summary 307395



Contact: Camille Reynolds Project Location: Lea County, NM

PLAINS ALL AMERICAN EH&S, Midland, TX Project Name: Monument Barber 10" Sour

Date Received in Lab: Tue Jul-08-08 08:25 am Report Date: 10-JUL-08

Jert Poration. Lea County, 1111									-		
								Froject Man	ager: r	ent barron, 11	
	Lab Id:	307395-0	10	307395-00	7	307395-00	3	307395-0	94		
A and of a constant	Field Id:	East Wall		Wcst Wall -	1	East Wall -	-2	West Wall	-2		
naisanhay sistinuv	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Jul-07-08 1	5:00	Jul-07-08 15	:05	Jul-07-08 15	:10	Jul-07-08 1:	5:15		
Percent Moisture	Extracted:										
	Analyzed:	Jul-09-08 0	9:50	Jul-09-08 09	:50	90-60-lnf	050	Jul-09-08 0	50		
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		14.8	1.00	11.7	1.00	11.8	1.00	13.5	1.00		
TPH hv SW8015 Mod	Extracted:	Jul-08-08 1	1:30	Jul-08-08 11	:30	Jul-08-08 11	1:30	Jul-08-08 1	:30		
	Analyzed:	Jul-08-08 2	3:46	Jul-09-08 00	:14	Jul-09-08 0(:44	Jul-09-08 0	:]4		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		QN	15.0	ND	15.0	QN	15.0	1410	15.0		
C12-C28 Diesel Range Hydrocarbons		DN	15.0	Ŋ	15.0	ND	15.0	4470	15.0		
C28-C35 Oil Range Hydrocarbons		QN	15.0	ŊŊ	15.0	QN	15.0	453	15.0		
Total TPH		QN		QN		ND		6333			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this manufaciest report rescent the back highermut of XENCO Laboratories. XENCO Laboratories assentses to responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi Since 1990

Odessa Laboratory Director Brent Barron

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- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

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9701 Harry Hines Blvd, Dallas, TX 75220 (214) 902 0300 (214) 351-9139
5332 Blackberry Drive, Suite 104, San Antonio, TX 78238 (210) 509-3334 (210) 509-3335
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5757 NW 158th St, Miami Lakes, FL 33014 (305) 823-8500 (305) 823-8555
6017 Financial Dr., Norcross, GA 30071 (770) 449-8800 (770) 449-5477

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Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

/ork Order #: 307395			Project II	D: 2000-1065	55	
Lab Batch #: 727500	Sample: 307395-001 / S ^r	MP Bat	.ch: 1 Matri	ix: Soil		
Units: mg/kg		SU/	RROGATE RF	ECOVERY S	STUDY	
TPH by SV	V8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Anal	lytes			[D]		1
I-Chlorooctanc		87.1	100	87	70-135	[
o-Tcrphcnyl		44.1	50.0	88	70-135	
Lab Batch #: 727500	Sample: 307395-001 S /	MS Bat	tch: 1 Matri	ix: Soil		
Units: mg/kg	-	SU	RROGATE RF	ECOVERY /	STUDY	
TPH by SW	V8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	·	91.9	100	92	70-135	r
o-Terphenyl		46.4	50.0	93	70-135	[
Lah Batch #: 727500	Sample: 307395-001 SE	MSD Ba	tch· 1 Matr	iv: Soil	L	
Units: mg/kg	Samples	SU	RROGATE RI	ECOVERY	STUDY	
TPH by SW	V8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Anai	lytes	/	I′	וטן	<u> </u>	L
1-Chlorooctane		90.7	100	91	70-135	Ļ
o-Terphenyl	<u> </u>	50.3	50.0	101	70-135	L
Lab Batch #: 727500	Sample: 307395-002 / S	MP Bat	tch: 1 Matri	ix: Soil		
Units: mg/kg		SU	RROGATE RF	ECOVERY f	STUDY	
TPH by SW Ana	V8015 Mod lvtes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	<u> </u>	85.8	100	86	70-135	l
o-Terphenyl		44.0	50.0	88	70-135	1
Lab Batch #: 727500	Sample: 307395-003 / S	MP Bat	tch: 1 Matr	ix: Soil	L	
Units: mg/kg		SU	RROGATE RF	ECOVERY	STUDY_	
TPH by SW	V8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Anal	lytes	/	L'	[D]	<u> </u>	1
1-Chlorooctane	·	87.7	100	88	70-135	Ī
o-Terphenyl		44.2	50.0	88	70-135	1

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

Work Order #: 307395		Project II	D: 2000-1065	55	
Lab Batch #: 727500 Sample: 307395-004 / S	MP Ba	tch: Matri	ix: Soil		
Units: mg/kg	SU	RROGATE RI	ECOVERY	STUDY	
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane	103	100	103	70-135	
o-Terphenyl	46.5	50.0	93	70-135	
Lab Batch #: 727500 Sample: 511782-1-BKS	/BKS Ba	tch: 1 Matri	ix: Solid		
Units: mg/kg	SU	RROGATE RI	ECOVERY	STUDY	
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.1	100	95	70-135	
o-Terphenyl	49.4	50.0	99	70-135	
Lab Batch #: 727500 Sample: 511782-1-BLK	/BLK Ba	tch: ¹ Matri	ix: Solid		
Units: mg/kg	SU	RROGATE RI	ECOVERY	STUDY	_,
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	89.4	100	89	70-135	
o-Tcrphenyl	45.3	50.0	91	70-135	
Lab Batch #: 727500 Sample: 511782-1-BSD	/ BSD Ba	tch: 1 Matri	ix: Solid	l	
Units: mg/kg	SU	RROGATE RI	ECOVERY	STUDY	<u> </u>
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.8	100	93	70-135	
o-Terphenyl	46.8	50.0	94	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis *** Poor recoveries due to dilution Surrogate Recovery [D] = 100 * A / B





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Project Name: Monument Barber 10" Sour

Work Order #: 307395 Lab Batch ID: 727500 Analyst: ASA

Date Prepared: 07/08/2008

Batch #: 1

Sample: 511782-1-BKS

Project ID: 2000-10655 Date Analyzed: 07/08/2008 Matrix: Solid

Units: mg/kg		BLAN	K /BLANK S	PIKE / B	LANK S	PIKE DUPL	ICATE I	RECOVE	RY STUD	Y	
TPH by SW8015 Mod	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	Blk. Spk Dup.	RPD	Control Limits	Control Limits	Flag
	[A]		Result	%К		Duplicate	%R	%	%К	%RPD	
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
C6-C12 Gasoline Range Hydrocarbons	DN	1 000	882	88	1000	866	87	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	QN	1000	877	88	1000	856	86	2	70-135	35	

Relative Percent Difference RPD = 200*[(D-F)/(D+F)] Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes

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Project ID: 2000-10655

Matrix: Soil

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Batch #:

QC- Sample ID: 307395-001 S Date Prepared: 07/08/2008

Date Analyzed: 07/09/2008 Lab Batch ID: 727500 Work Order #: 307395

Analyst: ASA

Reporting Units: mg/kg		W	ATRIX SPIKI	ZAMAT	RIX SPI	KE DUPLICA'	FE REC	OVERY :	TUDY		
TPH by SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Kesult [A]	Added [B]		8% [D]	Added [E]	Result [F]	[G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1000	830	83	1000	834	83	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	266	80	1000	812	81	-	70-135	35	

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Page 9 of 12



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Sample Duplicate Recovery



Project Name: Monument Barber 10" Sour

Work Order #: 307395

Lab Batch #: 727517	Project ID: 2000-10655	
Date Analyzed: 07/09/2008	Date Prepared: 07/09/2008 Analyst: MOV	
QC- Sample ID: 307395-001 D	Batch #: 1 Matrix: Soil	
Reporting Units: %	SAMPLE / SAMPLE DUPLICATE RECOVERY	,
Percent Moisture	Parent SampleSampleControlResultDuplicateRPDLimitsFlag[A]Result%RPD	
Analyte	[B]	
Percent Moisture	14.8 16.5 11 20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

IAT blebnst2 × 🗍 NPDES and 57 , AM , 165 🖛 () TAT HRUS Chiorides E 300 PER Paint Files A93 HA9 Project Name: Monument Barber 10" Sour .M.F.O.N TRRP Phane: 432-563-1500 Fax: 432-563-1713 CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST ເວຍ × 0928 X318 * PO #: PAA - C. J. Bryant Project Loc: Les County, NM X Standard Project #: 2000-10655 es on es co co co ho no sec 2321923184 **06'10¥ * 1944: 112,1002 1X 1944: 1X 1002 1X 1944: 1X 1002 1X Report Format: XL 900 95109 -Mathy Seil იე = and Quisting Aller (Aparts) held (HAG) and 12800 West I-20 East Odessa, Texus 79765 '0's4 HO^eN ¹OS²H (505) 386-1429 (Z X VOA) TOH ¹ONH 80) × × × noO to .8 Into D41910-L D4 Fex No: e-mail 1505 beigme2 omit 7/7/2008 Basin Environmental Service Technologies, LLC ensC under Bulba diga Definition Lovington, NM 88260 Company Address: 2800 Plains Hwy (575),441-2244 H Curt Stanley East Wall - 1 FIELD CODE 201395 Sampler Signature: Project Manager: Company Name

Telephone No: City/State/Zip:

(lab use only) ORDER #: () z' z z z z

Laboratory Comments: Laboratory Comments: Sampa contrainers Interd? VOCA free of Headpace? Laborator contrainer(s) Laborator contrainer(s) Laborator contrainer(s) Laborator contrainer(s) Laborator contrainer(s) Cutatory seals on contrainer(s) Cutatory se

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Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

Client	Basin Env. Phins
Date/ Time:	7808 8:25
Lab ID #	307 395
Initials	<u> </u>

Sample Receipt Checklist

		_		Client Initia
#1	Temperature of container/ cooler?	Yes	No	0°C
#2	Shipping container in good condition?	Yes	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present (PA)
#4	Custody Seals intact on sample bottles/ container?	Yes/	No	Not Present
#5	Chain of Custody present?	Yas	No	
#6	Sample instructions complete of Chain of Custody?	Kes	No	
#7	Chain of Custody signed when relinquished/ received?	Kes	No	
#8	Chain of Custody agrees with sample label(s)?	L Co	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	Yes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	Kes	No	
#11	Containers supplied by ELOT?	(es	No	
#12	Samples in proper container/ bottle?	(es	No	See Below
#13	Samples properly preserved?	Yes	No	See Below
#14	Sample bottles intact?	Ye	No	
#15	Preservations documented on Chain of Custody?	Yes	No	
#16	Containers documented on Chain of Custody?	Yes	No	
#17	Sufficient sample amount for indicated test(s)?	Yeş	No	See Below
#18	All samples received within sufficient hold time?	(es)	No	See Below
#19	Subcontract of sample(s)?	Yes	No	Not Applicable
#20	VOC samples have zero headspace?	Yes,	Na	Not Applicable

Variance Documentation

Date/ Time:

Contact

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Regarding:

Corrective Action Taken:

Check all that Apply:

See attached e-mail/ fax

Contacted by:

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

Analytical Report 309364

for

PLAINS ALL AMERICAN EH&S

Project Manager: Camille Reynolds

Monument Barber 10" Sour 2000-10655

11-AUG-08

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

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11-AUG-08



Project Manager: **Camille Reynolds PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: 309364 Monument Barber 10" Sour Project Address: Lea County, NW

Camille Reynolds:

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We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 309364. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 309364 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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Sample Cross Reference 309364

PLAINS ALL AMERICAN EH&S, Midland, TX

Monument Barber 10" Sour

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile A	S	Jul-31-08 10:45		309364-001



Project Name: Monument Barber 10" Sour

Contact: Camille Reynolds

Project Id: 2000-10655

Date Received in Lab: Tue Aug-05-08 11:32 am Report Date: 11-AUG-08

Project Location: Lea County, NW			Keport Date: 11-AUG-US
			Project Manager: Brent Barron, II
	Lab Id:	309364-001	
A sector Descreted	Field Id:	Stockpile A	
Anarysis Kequesieu	Depth:		
	Matrix:	SOIL	
	Sampled:	Jul-31-08 10:45	
Percent Moisture	Extracted:		
	Analyzed:	Aug-06-08 08:30	
	Units/RL:	% RL	
Percent Moisture		10.1	
TPH hv SW8015 Mod	Extracted:	Aug-07-08 10:30	
	Analyzed:	Aug-07-08 21:36	
	Units/RL:	mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons		633 16.7	
C12-C28 Diesel Range Hydrocarbons		3390 16.7	
C28-C35 Oil Range Hydrocarbons		535 16.7	
Total TPH		4558	

This analytical report, and the entire dua package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed through this analytical report retracts the bits lyaghement of XENCO Laboratories. XENCO Laboratories assumes to responsibility and makes no warranty to the tend use of the data hereby presented. Our liability is limited to the amount invoited for this work order unless otherwise agreed to it mitting.

Odessa Laboratory Director Brent Barron

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Page 4 of 12



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- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- **F** RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- * Outside XENCO'S scope of NELAC Accreditation

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### Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

'ork Order #: 309364			Project II	<b>D:</b> 2000-1065	55	
Lab Batch #: 730465	Sample: 309358-00	IS/MS Bat	ch: 1 Matr	ix: Soil		
Units: mg/kg		SU	RROGATE R	ECOVERY	STUDY	
TPH by SW	8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analy	tes			[D]		
I-Chlorooctane		70.9	100	71	70-135	
o-Terphenyl		43.4	50.0	87	70-135	
Lab Batch #: 730465	Sample: 309358-00	1 SD / MSD Bat	tch: 1 Matr	ix: Soil		
Units: mg/kg		SU	RROGATE R	ECOVERY	STUDY	
TPH by SW Analy	8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctanc		73.9	100	74	70-135	
o-Terpheny]		45.1	50.0	90	70-135	
Lab Batch #: 730465	Sample: 309364-00	1 / SMP Bat	ch: 1 Matr	ix: Soil	•	
Units: mg/kg	SU	RROGATE R	ECOVERY	STUDY		
TPH by SW	8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
		95.1		1~1	70.126	
o-Ternhenyl		85.1 50.6	50.0	101	70-135	
		50.0	50.0	101	70-133	
Lab Batch #: 730465	Sample: 513538-1-1	BKS/BKS Bat	tch: 1 Matr	ix: Solid		
Units: mg/kg		SU	SURROGATE RECOVERY STUDY			
TPH by SW Analy	8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	•	77.6	100	78	70-135	
o-Terpheny]		44.9	50.0	90	70-135	L
Lab Batch #: 730465	Sample: 513538-1-	BLK / BLK Bat	tch: 1 Matr	ix: Solid		
Units: mg/kg		SU	RROGATE R	ECOVERY	STUDY	
TPH by SW	8015 Mod	Amount Found [A]	True Amount {B}	Recovery %R	Control Limits %R	Flags
Analy	vtes			[D]		
1-Chlorooctane		76.3	100	76	70-135	
o-Terphenyl		44.5	50.0	89	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



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### Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

Work Order #: 309364

ork Order #: 309364 Lab Batch #: 730465 Sample: 513538 Units: mg/kg	B-1-BSD / BSD Ba	Project I tch: ¹ Mat RROGATE R	D: 2000-1065 rix: Solid ECOVERY S	STUDY	
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.1	100	76	70-135	
o-Terphenyl	46.0	50.0	92	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis *** Poor recoveries due to dilution Surrogate Recovery [D] = 100 * A / B All results are based on MDL and validated for QC purposes.

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**BS / BSD Recoveries** 



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Project Name: Monument Barber 10" Sour

Project ID: 2000-10655

Date Analyzed: 08/07/2008

Matrix: Solid

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY** Date Prepared: 08/07/2008 Blank Sample: 513538-1-BKS Work Order #: 309364 Lab Batch ID: 730465 Units: mg/kg Analyst: IRO

Batch #: 1

Flag Limits %RPD Control 35 35 Control Limits %R 70-135 70-135 RPD % 2 Blk. Spk Dup. 6G 83 82 Spike Duplicate Result [F] Blank 822 826 Spike Added 1000 1000 Ξ Blank Spike %R [D] 84 84 Blank Spike Result [C] 838 840 Spike Added 1000 1000 B Sample Result Z Ð Q TPH by SW8015 Mod C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons Analytes

Relative Percent Difference RPD = 200*([D-F)/(D+F)] Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes


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Form 3 - MS/ MSD Recoveries



Project Name: Monument Barber 10" Sour

Work Order #: 309364

Date Analyzed: 08/08/2008 Lab Batch ID: 730465

1 IRO Analyst: Batch #: QC- Sample ID: 309358-001 S

Matrix: Soil

Project ID: 2000-10655

Date Analyzed: 08/08/2008	ate Prepared:	08/07/2(	008	Ana	lyst: I	RO					
Reporting Units: mg/kg		M	ATRIX SPIKI	E / MATI	IIX SPH	KE DUPLICAT	FE RECC	VERY S	TUDY		$\square$
TDU h., CW/9015 Med	Parent		Spiked Sample	Spiked		Duplicate	Spiked		Control	Control	
nnthi ctag a c án li j i	Sample	Spike	Result	Sample	Spike	Spiked Sample	Dup.	RPD	Limits	Limits	Flag
	Result	Added		%R	Added	Result [F]	%R	%	%R	%RPD	
Analytes	[ <b>Y</b> ]	[B]		ā	[E]		[6]				
C6-C12 Gasoline Range Hydrocarbons	ΟN	1110	838	75	1110	871	78	4	70-135	35	
C12-C28 Dicsel Range Hydrocarbons	38.1	1110	838	72	1110	874	75	4	70-135	35	

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Page 9 of 12



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## Sample Duplicate Recovery



## Project Name: Monument Barber 10" Sour

Work Order #: 309364

Lab Batch #: 730076			Project I	<b>D:</b> 2000-106	555
Date Analyzed: 08/06/2008	Date Prepared: 08/0	6/2008	Analy	st: MOV	
QC- Sample ID: 309344-003 D	Batch #: 1		Matri	x: Soil	
Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[ <b>B</b> ]			
Percent Moisture	15.3	18.3	18	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

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## Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 13800 West 1:40 East Odessa, Taxas 79765

t Barbar 10" Sour	5	NM	Bryant	J 🗌 TRRP 🗍 NPDES		elyze For.				Veidore Parto de la constance Parto de la constance Na constance Na constance PAN PAN Parto de E 300 Chiordes E 300 Chioref E 300 Chiordes E 300 Chiordes E 300 Chiordes E 300 Ch							mmenta: materia: Conv adsoración Conv		istrometral Silverrad Literation 20 N Literation 20 N	on Receiption O. F. C.
t Name: Monumen	oject #: 2000-1065	et Loc: Lea County	PO #: PAA - C. J.	rmat: X Standar		An	10.9		•	전 11 전 1000 전 12 000 전 12 1000 T							Laboratory Con Sample Contain VOCa Free of Hi	<ul> <li>Labels on contail</li> <li>Custody seals of</li> </ul>	e Seinpie Hend De	Temperature Up
Project	đ	Proje		aport Fo	{				89	TPH. 4161 (8015M) 001: NPLINANPORTS Stands Office GW = CRUMMARCH S= Scalabold	oil X			-		+		- 	Ē	ц,
ł		1	1	œ	ШQ				ž	Control ( Spoked ) Control ( Spoked ) Control ( Spoked ) Control ( Spoked )								Date	Date	Dete 0 /rr / 0
PAGE 01 OF 01	Sarvice Technologies, LLC			Fax No: (505) 396-1426	Jr. Jr. Castanley@basinenv	0 5 7 010	· · ····		Prevervation 6.4 of Conta	find Depth fright Depth Date Sompled Date Sompled Time Sampled Time Sampled Time Sampled Toth Sampled Toth Sampled Toth Sampled Toth Sampled Toth Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Sampled Samp	7/31/2008 1045							Time Received by:	I USA Received by	Time Received by ELOT:
Project Manager Curt Stenley	Company Name Basin Environmental S	Company Address: 2800 Plains Hwy	City/State/Zip: Levington, NM 58250	Telephone No: (575) 441-2244	Sampler Signature: C. A. I. H.	h	(Auo	.0.2/1	2# 304364	FIELD CODE	Staataila A						Instructions: BILL TO PLAINS	T-J.		hed by: Date

## Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Ctient:	Basin Enviromental
Date/ Time:	8/5/08 11:32
Lab ID # :	209364
Initials:	56

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## Sample Receipt Checklist

				Client Init	ials
#1	Temperature of container/ cooler?	(6)	No	2.5 °C	
#2	Shipping container in good condition?	Tes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	7
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	-
#9	Container label(s) legible and intact?	(Ye)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(es)	No		
#11	Containers supplied by ELOT?		No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Cress	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	Tes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	des	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	
#18 #19 #20	All samples received within sufficient hold time? Subcontract of sample(s)? VQC samples have zero headspace?	Yes Yes	No No No	Not Applicable	

## Variance Documentation

Contact:	 Contacted by:	Date/ Time:
Regarding:	 ·	
Corrective Action Taken:		
Check all that Apply:	See attached e-mail/ fax Client understands and would like to pro Cooling process had begun shortly after	ceed with analysis sampling event

## Analytical Report 309767

for

## PLAINS ALL AMERICAN EH&S

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**Project Manager: JIMMY BRYANT** 

Monument Barber 10" Sour

2000-10655

18-AUG-08





12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

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18-AUG-08



Project Manager: JIMMY BRYANT PLAINS ALL AMERICAN EH&S 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: 309767 Monument Barber 10" Sour Project Address: Lea County, NM

## JIMMY BRYANT:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 309767. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 309767 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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## Sample Cross Reference 309767

## PLAINS ALL AMERICAN EH&S, Midland, TX

Monument Barber 10" Sour

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile 1-A	S	Aug-08-08 15:00		309767-001
Stockpile 2-A	S	Aug-08-08 15:10		309767-002





Project Id: 2000-10655 Contact: JIMMY BRYANT Project Location: Lea County, NM

Date Received in Lab: Mon Aug-11-08 08:20 am Report Date: 18-AUG-08

						Project Manage	r: Brent Barron,	, П	
	Lab Id:	309767-001		309767-002	-				
America Docusedad	Field Id:	Stockpile 1-A		Stockpile 2	4				
naicanhau ciclinuv	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	Aug-08-08 15:(	00	Aug-08-08 15	01				
Percent Moisture	Extracted:								
	Analyzed:	Aug-11-0817:	00	Aug-11-08 17	00				
	Units/RL:	%	RL	%	RL				
Percent Moisture		7.54		7.34					
TPH hy SW8015 Mod	Extracted:	Aug-13-08 16:	20	Aug-13-08 16	20				
	Analyzed:	Aug-15-08 20:	04	Aug-15-08 20	32				
	Units/RL:	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons	-	405	16.2	768	16.2				
C12-C28 Diesel Range Hydrocarbons		1500	16.2	2540	16.2				
C28-C35 Oil Range Hydrocarbons		257	16.2	430	16.2		-		
rotai TPH		2162		3738					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expersed throughout this analytical report research the hist Judgment of XENCO Laboratories. XENCO Laboratories assumes to responsibility and maken no warmany to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Odessa Laboratory Director Brent Barron



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- **F** RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- * Outside XENCO'S scope of NELAC Accreditation

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	Phone	Fax
1381 Meadowglen Lane Suite L Houston, Tx 77082-2647	(281) 589-0692	(281) 589-0695
9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, Suite 104, San Antonio, TX 78238	. (210) 509-3334	(210) 509-3335
2505 N. Falkenburg Rd., Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
5017 Financial Dr., Norcross, GA 30071	(770) 449-8800	(770) 449-5477

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## Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

Work Order #: 309767		Project I	<b>D:</b> 2000-1065	5	
Lab Batch #: 731327 Sample: 309767-001	/ SMP Bat	ch: 1 Matr	ix: Soil		
Units: mg/kg	SUF	RROGATE RI	ECOVERY S	STUDY	
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		- <u></u>			
I-Chlorooctanc	90.8	100	91	70-135	
0- Ferphenyl	46.9	50.0	94	70-135	· · · · · · · · · · · · · · · · · · ·
Lab Batch #: 731327 Sample: 309767-002	/ SMP Bate	ch: l Matr	ix: Soil		
Units: mg/kg	SUF	RROGATE RI	ECOVERY S	STUDY	
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	116	100	116	70-135	
o-Tcrphcnyl	56.3	50.0	113	70-135	
Lab Batch #: 731327 Sample: 309801-003	S/MS Bat	eh· 1 Matr	ix: Soil		
Units: mg/kg	SUF	ROGATE RI	ECOVERY S	STUDY	
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	4.48	50.0	9	70-135	**
Lab Batch #: 731327 Sample: 309801-003	SD / MSD Bat	ch: 1 Matr	ix: Soil		
Units: mg/kg	SUF	ROGATE R	ECOVERY S	STUDY	
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	J J				
I I-URIOFOOCIARC	113	100	113	70-135	
o-Terphenyl	113 54.0	100	113	70-135	
o-Terphenyl	113 54,0	100 50.0	113 108	70-135	
o-Terphenyl Lab Batch #: 731327 Sample: 514038-1-Bi	113 54.0 KS / BKS Bate	100 50.0 ch: 1 Matr	113 108 ix: Solid	70-135 70-135	
o-Terphenyl Lab Batch #: 731327 Sample: 514038-1-Bl Units: mg/kg	113 54.0 KS / BKS Bate SUF	100 50.0- ch: 1 Matr RROGATE RI	113 108 ix: Solid ECOVERY S	70-135 70-135	
o-Terphenyl Lab Batch #: 731327 Sample: 514038-1-Bl Units: mg/kg TPH by SW8015 Mod	113       54.0       KS / BKS     Bate       SUF       Amount       Found       [A]	100 50.0 ch: 1 Matr RROGATE RJ True Amount [B]	113 108 ix: Solid ECOVERY S Recovery %R [D]	70-135 70-135 STUDY Control Limits %R	Flags
o-Terphenyl Lab Batch #: 731327 Units: mg/kg TPH by SW8015 Mod Analytes 1-Chlorooctane	113       54.0       KS / BKS     Bate       SUF       Amount       Found       [A]	100 50.0 ch: 1 Matr RROGATE RI True Amount [B]	113 108 ix: Solid ECOVERY S Recovery %R [D]	70-135 70-135 5TUDY Control Limits %R 70-135	Flags

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



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## Form 2 - Surrogate Recoveries



## Project Name: Monument Barber 10" Sour

Work Order #: 309767 Lab Batch #: 731327 Sample: 514038-1-BLK /	BLK Ba	Project II tch: 1 Matri	<b>):</b> 2000-1065 ix: Solid	55	
Units: mg/kg	SU	<b>RROGATE RF</b>	<b>ECOVERY</b> 5	STUDY	······································
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	102	100	102	70.135	ł
n-Cerphenyl	61.8	50.0	102	70-135	t'
Lab Batch #: 731327 Sample: 514038-1-BSD / Units: mg/kg	BSD Bat	tch: 1 Matri RROGATE RI	ix: Solid	STUDY	
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	111	100	111	70-135	
o-Terphenyl	53.4	50.0	107	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.



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Project Name: Monument Barber 10" Sour

**BS / BSD Recoveries** 



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		Sample: 514038-1-BKS	
Work Order #: 309767	Analyst: IRO	Lab Batch ID: 731327	Traiter Mo/ko

**Date Prepared:** 08/13/2008

Batch #: 1

Project ID: 2000-10655 Date Analyzed: 08/15/2008 Matrix: Solid

Units: mg/kg		BLAN	K /BLANK S	PIKE / B	LANK S	PIKE DUPL	ICATE F	RECOVE	RY STUD	Y	
TPH by SW8015 Mod	Blank Sample Result	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Dunlicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	<u>.</u>	[ <b>B</b> ]	[C]	a	[E]	Result [F]	5	2			
C6-C12 Gasoline Range Hydrocarbons	QN	1000	884	88	1000	881	88	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	DN	1000	869	87	1 000	902	06	4	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F) Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries Л I

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**Project Name: Monument Barber 10" Sour** 

Lab Batch ID: 731327 Work Order # 309767

Date Analyzed: 08/16/2008 ~~/~~~ Inite rtino Don

IRO Analyst: Date Prepared: 08/13/2008

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Batch #:

QC- Sample ID: 309801-003 S

Project ID: 2000-10655 Matrix: Soil

Keporting Units: mgkg		Ŵ	ATRIX SPIKE	TAM / 3	ALX SPIF	<b>TE DUPLICAT</b>	re reco	<b>VERY S</b>	TUDY		
TPH by SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Kesuit [A]	Added [B]		<b>B</b> ]	Added [E]	Result [F]	%R [G]	%	%К	%RPD	
C6-C12 Gasoline Range Hydrocarbons	QN	1060	216	87	1060	948	68	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	22.3	0901	1040	96	1060	942	87	10	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*[(C-F)/(C+F)]

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Page 9 of 12



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## Sample Duplicate Recovery



Project Name: Monument Barber 10" Sour

Work Order # 309767

Lab Batch #: Date Analyzed:	730669 08/11/2008	Date Pre	<b>pared:</b> 08/1	1/2008	Project I Analy	D: 2000-100 st: MOV	555
Reporting Units:	%	D	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
	Percent Moisture Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture			48.5	49.2	1	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. Ø 6 0 Ø 9

## Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

TAT brednad2 × × ୵୵୵୵୵୵୵ୖୢ ୠ୕ୠୠୠୠୠୖୄୡୢ Dedes a and) TAT HEUR **** 22 189 192 Chlorides E 300 1207 1438-1 Miled AQ P-1-HVd Project Name: Monument Barber 10" Sour 10.8.01 Phone: 432-663-1800 Fax: 432-663-1713 🗍 текр Η 101 8 2 2 C Temperature Upon Receipt Labor frony Commants: Sampla Containers Intract? VCC3 Free of Headspoor? Leabea on container(s) Custody seals on contrainer(s) Custody seals on conter(s) BTEX 8021B/6030 or GTEX 8260 settient Rep. å PO #: PAA - C. J. Bryant Sample Hand Delivere Dy Semplevictient F Project Lec: Les County, NM Project #: 2000-10665 X Standard Nethick All to bo will ge with the bull by Counter? 030/483/8W6 * (CI' 904 Ó Report Formet: 5001 X1 1Hda 8001 XT Time Line T (MSLOS) 1'818 HAL 85108 Sol Soil Unter K wol Date all o a P cstanley@basinenv.com (Appedg ) mag (1149) 64004 12600 Wost I-20 East Odessa, Texas 79765 '0'5'чн Contine L I of Co HOPN **'05'**Н на (лоч x s) нико⁷ 2.0 Fi ез (505) 396-1429 ж tel 6. of Con ANNO RATCHON D64010-1 CH Bulley Shulhume Fax No: e-mail: 1610 1500 es emit é PAGE 01 OF 8/8/2008 8/8/2008 Received by. ecerved by Basin Environmental Service Technologies, LLC teO Pater Time F unden Buipt Ē underg Buruuriße Lovington, NM 88250 and a (1 + DE Company Address: 2800 Plains Hwy (575) 441-2244 Curt Stanley Stockpile 1-A Stockpile 2-A FIELD CODE て ORDER# 30976 Sempler Signature: Project Manager: Company Name City/State/Zip: Telephone No: ecial Instructions: rinquished by (Ano ean dai) a bartation 0 (Appo een ger) # (Fy

## Environmental Lab of Texas

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Variance/ Corrective Action Report- Sample Log-In

Client:	Plains
Date/ Time:	8/11/08 8:20
Lab ID #	309767
Initiais:	<u>Ja</u>

## Sample Receipt Checklist

				Client in	litials
#1	Temperature of container/ cooler?	(Lines)	No	4, 0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	(Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?		No	Not Present	
#5	Chain of Custody present?	Ves	No		
#6	Sample instructions complete of Chain of Custody?	Tes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes,	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	(Ve)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Ces	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	( Ces	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)? To 8) ind	1905	No	(Not Applicable	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

## Variance Documentation

Contact:

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Contacted by: 

Regarding:

Corrective Action Taken:

Check all that Apply:

See attached e-mail/ fax

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

Date/ Time:

## Analytical Report 309862

for

## PLAINS ALL AMERICAN EH&S

**Project Manager: Camille Reynolds** 

Monument Barber 10" Sour

2000-10655

18-AUG-08



12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta



18-AUG-08

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Project Manager: **Camille Reynolds PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: 309862 Monument Barber 10" Sour Project Address: Lea County, NM

## **Camille Reynolds:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 309862. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 309862 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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## Sample Cross Reference 309862

## PLAINS ALL AMERICAN EH&S, Midland, TX

Monument Barber 10" Sour

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NSW-1 @ 14'	S	Aug-11-08 10:05		309862-001
NSW-2 @ 14'	S	Aug-11-08 10:10		309862-002
ESW-1 @ 14'	S	Aug-11-08 10:15		309862-003
ESW-2 @ 14'	S	Aug-11-08 10:20		309862-004
ESW-3 @ 14'	S	Aug-11-08 10:25		309862-005
ESW-4 @ 14'	S	Aug-11-08 10:30		309862-006
WSW-4 @ 14'	S	Aug-11-08 10:35		309862-007
WSW-3 @ 14'	S	Aug-11-08 10:40		309862-008
WSW-2 @ 14'	S	Aug-11-08 10:45		309862-009
WSW-1 @ 14'	S	Aug-11-08 10:50		309862-010
SCSW-1 @ 14'	S	Aug-11-08 10:55		309862-011
SCSW-2 @ 14'	S	Aug-11-08 11:00		309862-012

## Evenerated a contract of Analysis Summary 309862 ē



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Contact: Camille Reynolds

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Monument Barber 10" Sour

Date Received in Lab: Mon Aug-11-08 05:05 pm Report Date: 18-AUG-08

Project Location: Lea County, NM					keport Date: 1	8-AUG-08	
					Project Manager: F	srent Barron, II	
	Lab Id:	309862-001	309862-002	309862-003	309862-004	309862-005	309862-006
Auction Documentary	Field Id:	NSW-1 @ 14'	NSW-2 @ 14'	ESW-1 @ 14'	ESW-2 @ 14'	ESW-3 @ 14'	ESW-4 @ 14'
Analysis Kequesieu	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Aug-11-08 10:05	Aug-11-08 10:10	Aug-11-08 10:15	Aug-11-08 10:20	Aug-11-08 10:25	Aug-11-08 10:30
RTFY hv FPA 80218	Extracted:	Aug-13-08 15:35	Aug-13-08 15:35	Aug-13-08 15:35	Aug-13-08 15:35	Aug-13-08 15:35	Aug-13-08 15:35
	Analyzed:	Aug-14-08 10:01	Aug-14-08 10:24	Aug-14-08 10:48	Aug-14-08 11:12	Aug-14-08 11:36	Aug-14-08 12:00
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0012
Toluene		ND 0.0023	ND 0.0022	ND 0.0022	ND 0.0021	ND 0.0021	ND 0.0023
Ethylbenzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0012
m,p-Xylenes		ND 0.0023	ND 0.0022	ND 0.0022	ND 0.0021	ND 0.0021	ND 0.0023
o-Xylene		ND 0.0011	1100:0 DN	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0012
Total Xylenes		ND	QN	ND	DN	ND	ND
Total BTEX		DN	QN	ŊŊ	DN	DN	ND
Percent Moisture	Extracted:						
	Analyzed:	Aug-13-08 08:35	Aug-13-08 08:35	Aug-13-08 08:35	Aug-13-08 08:35	Aug-13-08 08:35	Aug-13-08 08:35
	Units/RL:	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		12.9	9.14	7.76	4.26	3.31	14.7
TPH By SW8015 Mod	Extracted:	Aug-13-08 10:00	Aug-13-08 10:00	Aug-13-08 10:00	Aug-13-08 10:00	Aug-13-08 10:00	Aug-13-08 10:00
	Analyzed:	Aug-14-08 16:42	Aug-14-08 14:58	Aug-14-08 15:24	Aug-14-08 16:16	Aug-14-08 17:08	Aug-14-08 17:33
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		ND 17.2	ND 16.5	ND 16.3	ND 15.7	ND 15.5	ND 17.6
C12-C28 Diesel Range Hydrocarbons		ND 17.2	ND 16.5	17.2 16.3	ND 15.7	ND 15.5	ND 17.6
C28-C35 Oil Range Hydrocarbons		ND 17.2	ND 16.5	ND 16.3	ND 15.7	ND 15.5	ND 17.6
Total TPH		DN	ND	17.2	DN	ND	DN

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report research the backgudgment of XENCO Laboratories. XEXCO Laboratories assumes to responsibility and makes no warrany to the end use of the data hereby presented. Our liability is limited to the amount involved for this work order unless otherwise agreed to it writing.

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Since 1990

Odessa Laboratory Director Brent Barron

# Image: Control of Analysis Summary 309862

ENVRONMENTALE ENVRONMENTALE LAG TOO-10655

Contact: Camille Reynolds

PLAINS ALL AMERICAN EH&S, Midland, TX Project Name: Meanweit Barber 10th Source

Project Name: Monument Barber 10" Sour

Date Received in Lab: Mon Aug-11-08 05:05 pm Report Date: 18-AUG-08

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Project Location: Lea County, NM					Report Date: 1	8-AUG-08	
					Project Manager: 1	srent Barron, Il	
	Lab Id:	309862-007	309862-008	309862-009	309862-010	309862-011	309862-012
Lastronic December 1	Field Id:	WSW-4 @ 14'	WSW-3 @ 14'	WSW-2 @ 14'	WSW-I @ 14'	SCSW-1 @ 14'	SCSW-2 @ 14'
naisanhan sistinuv	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Aug-11-08 10:35	Aug-11-08 10:40	Aug-11-08 10:45	Aug-11-08 10:50	Aug-11-08 10:55	Aug-11-08 11:00
RTFY by FPA 8071R	Extracted:	Aug-13-08 15:35	Aug-13-08 15:35	Aug-13-08 15:35	Aug-13-08 15:35	Aug-13-08 15:35	Aug-13-08 15:35
	Analyzed:	Aug-14-08 12:24	Aug-14-08 12:48	Aug-14-08 13:12	Aug-14-08 13:36	Aug-14-08 14:48	Aug-14-08 15:12
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.0011	ND 0.0012	ND 0.0012	1100'0 CN	ND 0.0011	ND 0.0056
Toluene		ND 0.0022	ND 0.0024	ND 0.0023	ND 0.0022	ND 0.0022	ND 0.0112
Ethylbenzene		ND 0.0011	ND 0.0012	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0056
m,p-Xylenes		ND 0.0022	ND 0.0024	ND 0.0023	ND 0.0022	ND 0.0022	ND 0.0112
o-Xylene		ND 0.0011	ND 0.0012	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0056
Total Xylenes		DN	ND	QN	QN	DN	ND
Total BTEX		ND	DN	DN	DN	ND	DN
Percent Moisture	Extracted:						
	Analyzed:	Aug-13-08 08:35	Aug-13-08 08:35	Aug-13-08 08.35	Aug-13-08 08:35	Aug-13-08 08:35	Aug-13-08 08:35
	Units/RL:	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		7.15	17.6	13.1	61.7	8.3	10.8
TPH RV SW8015 Mod	Extracted:	Aug-13-08 10:00	Aug-13-08 10:00	Aug-13-08 10:00	Aug-13-08 10:00	Aug-13-08 10:00	Aug-13-08 10:00
	Analyzed:	Aug-14-08 17:58	Aug-14-08 18:23	Aug-14-08 18:48	Aug-14-08 19:13	Aug-16-08 05:19	Aug-14-08 20:03
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		ND 16.2	ND 18.2	ND 17.3	ND 16.2	ND 16.4	ND 16.8
C12-C28 Diesel Range Hydrocarbons		ND 16.2	ND 18.2	ND 17.3	ND 16.2	ND 16.4	ND 16.8
C28-C35 Oil Range Hydrocarbons		ND 16.2	ND 18.2	ND 17.3	ND 16.2	ND 16.4	ND 16.8
Total TPH		QN	DN	DN	QN	DN	QN

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. In turpriserations and results appressed hroughout this analytical report represent to best superent of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warrany to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Odessa Laboratory Director Brent Barron

Page 5 of 19



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- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- * Outside XENCO'S scope of NELAC Accreditation

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332 Blackberry Drive, Suite 104, San Antonio, TX 78238	(210) 509-3334	(210) 509-3335
505 N. Falkenburg Rd., Tampa, FL 33619	(813) 620-2000	(813) 620-2033
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017 Financial Dr., Norcross, GA 30071	(770) 449-8800	(770) 449-5477

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## Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

Vork Order #: 309862		Project II	): 2000-1065	55	
Lab Batch #: 731042 Sample: 309	9862-001 / SMP Bat	tch: ¹ Matri	x: Soil		
Units: mg/kg	SU	RROGATE RE	COVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes				L	<u> </u>
I,4-Difluorobenzene	0.0337	0.0300	112	80-120	ļ
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	L
Lab Batch #: 731042 Sample: 309	9862-002 / SMP Ba	tch:   Matri	x: Soil		
Units: mg/kg	SU	RROGATE RE	COVERY S	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0346	0.0300	115	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	
Lab Batch #: 731042 Sample: 309		tch: 1 Matri	ix: Soil	<u> </u>	h
Units: mg/kg	SU	RROGATE RE	COVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4-Difluorobenzene	0.0338	0.0300	113	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	
Lak Brick # 731042 Sample: 309	Ba	· - 1 Matri	Soil		
Lad Batch #: 131042 Sample: 307	/802-004 / Sivir Dai	Ch: I Main	X: SUI		
Units: mg/kg		RRUGAIL RE			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0339	0.0300	113	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	
Lab Batch #: 731042 Sample: 309	9862-005 / SMP Ba	tch: ¹ Matri	ix: Soil	L	
Units: mg/kg	SU	RROGATE RE	COVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	0.0337	0.0300		<u>00 120</u>	
4. Drowedworschenzene	0.0337	0.0300	04	00-120	
4-Broinonuorobenzene	0.0265	0.0300	94	80-120	1

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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## Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

/ork Order #: 309862			Project ID	): 2000-1065	,5	
Lab Batch #: 731042 Sa	mple: 309862-006 / SMP	Bat	.ch: 1 Matriy	x: Soil		
Units: mg/kg		SUF	<b>RROGATE RE</b>	COVERY S	JTUDY	
BTEX by EPA 802	21B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		!	1	101	۱	í
1,4-Difluorobenzene		0.0342	0.0300	114	80-120	·
4-Bromofluorobenzene		0.0294	0.0300	98	80-120	
Lab Batch #: 731042 Sa	mple: 309862-007 / SMP	Bat	ich: 1 Matri	x: Soil		
Units: mg/kg		SUI	RROGATE RE	COVERY S	JTUDY	
BTEX by EPA 802 Analytes	:1 <b>B</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0336	0.0300	112	80-120	í
4-Bromofluorobenzene		0.0281	0.0300	94	80-120	ı
Lab Batch #: 731042 Sa	mple: 309862-008 / SMP	Bat	tch: 1 Matri	x: Soil		
Units: mg/kg		SUI	RROGATE RE	COVERY S	STUDY	
BTEX by EPA 802	21B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Allalytes		0.0242	0.0300		00 120	I
4-Bromofluorobenzene		0.0343	0.0300	97	80-120	ſ <b></b>
· · · · · · · · · · · · · · · · · · ·	· 300862.000 / SMP	Be	I Matri	- Soil	<u> </u>	
Lab Batch #: /31042 5a	mple: 303802-009 / 3001		ch: I Mann	X: SOIL		
Units: mg/kg	<b>_</b>		ROGATE KE	COVERT 5	TUDY	r
BTEX by EPA 802 Analytes	2 <b>1B</b>	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4-Difluorohenzene		0.0341	0.0300	114	80-120	(
4-Bromofluorobenzene		0.0295	0.0300	98	80-120	í
Lab Batch #: 731042 Sa	ample: 309862-010 / SMP	Bat	tch: ¹ Matri	ix: Soil	<u></u>	
Units: mg/kg	- Г	SU	<b>RROGATE RF</b>	COVERY 5	STUDY	
BTEX by EPA 802 Analytes	21B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0338	0.0300	113	80-120	(
4-Bromofluorobenzene		0.0278	0.0300	93	80-120	í
	1	······································	t	1	· /	·

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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## Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

/ork Order #: 309862		Project II	<b>):</b> 2000-1065	55	
Lab Batch #: 731042 Sample: 309862-011 / SM	P Bat	.ch: 1 Matri	x: Soil		
Units: mg/kg	SUI	RROGATE RE	LCOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	1'	1'	ן ועו	1	1
1,4-Difluorobenzene	0.0350	0.0300	117	80-120	1
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	I
Lab Batch #: 731042 Sample: 309862-012 / SN	1P Bat	tch: 1 Matri	ix: Soil		
Units: mg/kg	SU	RROGATE RF	ECOVERY 5	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene	0.0353	0.0300	118	80-120	r
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	
Lab Batab #. 731042 Sample: 309887-001 S / /	MC Ba	tabe 1 Matri	لیسی Soil	<u> </u>	
Units: mg/kg	SU'	RROGATE RF	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorohenzone	0.0290	0.0300		80-120	
4-Bromofluorobenzene	0.0290	0.0300		80-120	r
			· 0.:		
Lab Batch #: 731042 Sample: עם ווטט-זאַנעט אינעט אי	MSD Bat	ch: Matri	x: Soll		
Units: mg/kg	<u></u> SUI	RROGATE RE	COVERY 5	JTUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	[
Lab Batch #: 731042 Sample: 513876-1-BKS /	BKS Ba	tch:   Matri	ix: Solid	L	
Units: mg/kg	SU	RROGATE RF	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	0.0278	0.0300	03	<u>e0.120</u>	<b> </b>
4 Bromofluorohenzene	0.0270	0.0300	90	80-120	t
	0.0207	0.0300	<u> </u>		<u> </u>

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B All results are based on MDL and validated for QC purposes.

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## Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

ork Order #: 309862		Project I	<b>D:</b> 2000-1065	55	
Lab Batch #:731042Sample: 51	3876-1-BLK / BLK Bat	ich: 1 Matr	ix: Solid		
Units: mg/kg	SU!	RROGATE R	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	!		ן וען	L/	l
1,4-Difluorobenzene	0.0346	0.0300	115	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	L
Lab Batch #: 731042 Sample: 51	13876-1-BSD / BSD Bat	tch: 1 Matr	ix: Solid	_	
Units: mg/kg	SU	RROGATE R	ECOVERY S	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	(
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	[
Lab Batch #: 731050 Sample: 30	09862-001 / SMP Ba	tch: 1 Matr	rix: Soil	L	
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount (B)	Recovery %R [D]	Control Limits %R	Flags
Anaiytes		100		70.125	
I-Chlorooctane	/9.4	100	79	70-135	<b> </b>
o-Terphenyi	45.4	50.0	91	70-155	
Lab Batch #: 731050 Sample: 30	)9862-002 / SMP Bat	ich: 1 Matr	ix: Soil		
Units: mg/kg		RROGATE RJ	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
L Chloroostano	75.0	100	75	70-135	├───
lo-Terohenvi	42.4	50.0	85	70-135	l
I - L Data H. 731050 Sample: 3(	 00862_003 / SMP Ba	Mate	Soil	<u> </u>	<u> </u>
Units: mg/kg	SU	RROGATE R	ECOVERY !	STUDY	<u></u>
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]	!	
1-Chlorooctanc	75.0	100	75	70-135	
	······	·		<u> </u>	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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## Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

<b>Vork Order #:</b> 309862		Project II	<b>D:</b> 2000-1065	55	
Lab Batch #: 731050 Sample: 309862-004 / SN	AP Ba	tch: 1 Matri	ix: Soil		
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	_
TPH By SW8015 Mod	Amount Found [A]	True Amount {B]	Recovery %R [D]	Control Limits %R	Flags
Analytes	70.1	100	70	70 125	
o-Terphenyl	44.5	50.0	89	70-135	
	(D D		. Sail		
Lab Batch #: 731050 Sample: 309862-005 / SM Units: mg/kg	Ba Ba	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.6	100	76	70-135	
o-Tcrphcnyl	42.4	50.0	85	70-135	
Lab Batch #: 731050 Sample: 309862-006 / SN	AP Ba	tch:   Matri	ix: Soil	l	L
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	78.0	100	78	70-135	
o-Terphenyl	43.9	50.0	88	70-135	
Lab Batch #: 731050 Sample: 309862-007 / SN	/IP Ba	tch: 1 Matr	ix: Soil	<b>.</b>	
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.6	100	80	70-135	
o-Terphenyl	44.5	50.0	89	70-135	
Lab Batch #: 731050 Sample: 309862-008 / SN	/P Ba	tch: 1 Matr	ix: Soil		L
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	1	1	1	1	
1-Chlorooctane	75.5	100	76	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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## Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

<b>Vork Order #:</b> 309862		Project II	<b>D:</b> 2000-1065	55	
Lab Batch #: 731050 Sample: 309862-009 /	SMP Bat	tch: 1 Matri	ix: Soil		
Units: mg/kg	SUI	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes					
1-Chlorooctanc	78.3	100	78	70-135	
o-Terphenyl	44.1	50.0	88	70-135	
Lab Batch #: 731050 Sample: 309862-010 /	SMP Bat	ich: i Matri	ix: Soil		
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes		100	01	70.125	
o Terphonyd	81.3	50.0	01	70-135	
	45.4	50.0	91	70-135	
Lab Batch #: 731050 Sample: 309862-011 /	SMP Bat	tch: 1 Matri	ix: Soil		
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	79.9	100	80	70-135	
o-Terphenyl	44.5	50.0	89	70-135	
Lab Batch #: 731050 Sample: 309862-012 /	/ SMP Bat	ich: ¹ Matri	ix: Soil	L	
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane	76.8	100	77	70-135	
	/0.0				
o-Terphenyl	43.7	50.0	87	70-135	
o-Terphenył Lab Batch #: 731050 Samole: 513879-1-BK	43.7 (S / BKS Bat	50.0	87 ix: Solid	70-135	
o-Terphenył Lab Batch #: 731050 Sample: 513879-1-BK Units: mg/kg	43.7 (S / BKS Bat	50.0 tch: 1 Matri RROGATE RI	87 ix: Solid ECOVERY S	70-135	
o-Terphenył Lab Batch #: 731050 Sample: 513879-1-BK Units: mg/kg TPH By SW8015 Mod	43.7 (S / BKS Bat SU Amount Found [A]	50.0 tch: 1 Matri RROGATE RJ True Amount [B]	87 ix: Solid ECOVERY S Recovery %R [D]	70-135 STUDY Control Limits %R	Flags
o-Terphenyl Lab Batch #: 731050 Units: mg/kg TPH By SW8015 Mod Analytes L-Chloroectane	43.7 (S / BKS Bat SU: Amount Found [A]	50.0 tch: 1 Matr RROGATE RI True Amount [B]	87 ix: Solid ECOVERY S Recovery %R [D]	70-135 STUDY Control Limits %R	Flags

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

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**C**)

Surrogate Recovery [D] = 100 * A / B



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## Form 2 - Surrogate Recoveries



## Project Name: Monument Barber 10" Sour

<b>Vork Order #:</b> 309862 Lab Batch #: 731050 Sample: 5138	79-1-BLK / BLK <b>Ba</b>	Project II	<b>D:</b> 2000-1065 rix: Solid	55	
Units: mg/kg	SU'	RROGATE R	ECOVERY !	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		1			L
1-Chlorooctane	85.1	100	85	70-135	1
o-Terphenyl	49.5	50.0	99	70-135	1
Lab Batch #: 731050 Sample: 5138'	79-1-BSD / BSD Bat	tch: 1 Matr	ix: Solid	<u> </u>	
Units: mg/kg	SU!	RROGATE R	ECOVERY S	STUDY	·
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
L-Chlorooctane	85.6	100	86	70.135	
	63.0		107	70-135	<b></b>
o-lerphenyl	53.5	50.0	107 '	70-135	1

** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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**BS / BSD Recoveries** 



Project Name: Monument Barber 10" Sour

Date Prepared: 08/13/2008

Batch #: 1

Sample: 513876-1-BKS

Lab Batch ID: 731042

Work Order #: 309862

Analyst: ASA

Project ID: 2000-10655 Date Analyzed: 08/14/2008

Matrix: Solid

Units: mg/kg		BLANK	(BLANK S	PIKE / B	LANK S	PIKE DUPL	ICATE F	RECOVE	RY STUD	Y	
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	_	[ <b>B</b> ]	[C]	[ <b>q</b> ]	[E]	Result [F]	[6]				
Benzene	ŊŊ	0.1000	0.1123	112	0.1	0.0986	66	13	70-130	35	
Toluene	Q	0.1000	0.1093	109	0.1	0.0963	96	13	70-130	35	
Ethylbenzenc	QN	0.1000	0.1174	117	0.1	0.1028	103	13	71-129	35	
m,p-Xylenes	QN	0.2000	0.2404	120	0.2	0.2107	105	13	70-135	35	
o-Xylenc	0.0011	0.1000	0.1107	111	0.1	0.0976	98	13	71-133	35	
Analyst: IRO	Da	te Prepare	<b>d:</b> 08/13/200	8			Date An	alyzed: 0	8/14/2008		

Analyst: IKU		IRAT	ie rrepare	007/CT/00 :0:	0				initere of	00.071-100		
ab Batch ID: 731050	Sample: 513879-1-B	KS	Batch	1 #: 1				_	Matrix: S	olid		
Units: mg/kg			BLAN	K /BLANK S	PIKE / B	LANK S	PIKE DUPL	ICATE I	RECOVE	RY STUD'	λ	
TPH By SW80	15 Mod	Blank Sample Result	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Dunlicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[4.]	[ <b>B</b> ]	[C]	[a]	[E]	Result [F]	[6]				
C6-C12 Gasoline Range Hydroci	arbons	QN	1000	801	80	0001	809	81	1	70-135	35	
C12-C28 Diesel Range Hydrocar	bons	QN	1000	812	81	1000	819	82	1	70-135	35	

Relative Percent Difference RPD = 200*[(C-F)/(C+F)] Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

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**Project Name: Monument Barber 10" Sour** 



Work Order # 309862

Lab Batch ID: 731042 Date Analyzed: 08/14/2008

 QC- Sample ID:
 309887-001 S
 Batch #:
 1
 Matrix:
 Soil

 Date Prepared:
 08/13/2008
 Analyst:
 ASA

Project ID: 2000-10655

Reporting Units: mg/kg		W	VTRIX SPIKE	/ MATH	AIX SPIK	E DUPLICAT	re reco	VERY S	TUDY		
BTEX by EPA 8021B	Parent	1.0	Spiked Sample	Spiked	6-11-2	Duplicate	Spiked	uau	Control 1 inite	Control Limits	Elan
	Result	spike		Sample %R	spike	spiked sample Result [F]	vup. %R	кги %	Suns %R	%RPD	
Analytes	[ <b>A</b> ]	<b>B</b>		[ <b>0</b> ]	[E]		[6]				
Benzene	DN	0.1130	0.0719	64	0.1130	0.0673	60	6	70-130	35	x
Toluene	ND	0.1130	0.0713	63	0.1130	0.0671	59	7	70-130	35	x
Ethylbenzene	ND	0.1130	0.0749	66	0.1130	0.0711	63	5	71-129	35	×
m,p-Xylencs	ND	0.2260	0.1555	69	0.2260	0.1481	66	4	70-135	35	x
o-Xylene	ND	0.1130	0.0679	60	0.1130	0.0656	58	3	71-133	35	×

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*(C-F)/(C+F)/ ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quanitation Limit

Matrix Spike Duplicate Percent Recovery  $[G] = 100^{*}(F-A)/E$ 



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## Sample Duplicate Recovery



## Project Name: Monument Barber 10" Sour

Work Order # 309862

Lab Batch #: Date Analyzed:	730815 08/13/2008 200862 001 D	Date Prepare	<b>d:</b> 08/1	3/2008	Project I Analy	D: 2000-100 st: MOV	555
Reporting Units:	%	SA	MPLE	SAMPLE	DUPLIC	ATE REC	<b>OVERY</b>
	Percent Moisture Analyte	Pare	nt Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture			12.9	12.7	2	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

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## Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 1200 West L20 East Odessa, Teass 79765 Fax: 432-653-1713

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## Environmental Lab of Texas

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## Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

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Date/ Time:



## Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	0.0 .0
#2	Shipping container in good condition?	(Tes)	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	res	No	Not Present
#5	Chain of Custody present?	Yes	No	
#6	Sample instructions complete of Chain of Custody?	(es)	No	
#7	Chain of Custody signed when relinquished/ received?	Tes	No	
#8	Chain of Custody agrees with sample labet(s)?	¢¢¢	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	Tes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	(is)	No	
#11	Containers supplied by ELOT?	(es	No	
#12	Samples in proper container/ bottle?	Yes	No	See Below
#13	Samples properly preserved?	(es)	No	See Below
#14	Sample bottles intact?	Key .	No	
#15	Preservations documented on Chain of Custody?	Ves	No	
#16	Containers documented on Chain of Custody?	(as	No	
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below
#18	All samples received within sufficient hold time?	Yes	No	See Below
#19	Subcontract of sample(s)?	Yes	No	Not Applicable >
#20	VOC samples have zero headspace?	es	No	Not Applicable

### Variance Documentation

Contact:

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 Regarding:

Corrective Action Taken:

_____

Check all that Apply:

See attached e-mail/ fax

Contacted by:

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

## **Analytical Report 310167**

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## PLAINS ALL AMERICAN EH&S

**Project Manager: Camille Reynolds** 

Monument Barber 10" Sour 2000-10655

18-AUG-08





E84880

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

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18-AUG-08

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Project Manager: **Camille Reynolds PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: 310167 Monument Barber 10" Sour Project Address: Lea County, NM

### **Camille Reynolds:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 310167. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 310167 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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### Sample Cross Reference 310167

### PLAINS ALL AMERICAN EH&S, Midland, TX

Monument Barber 10" Sour

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
ESW-5 @ 10'	S	Aug-14-08 13:00		310167-001
WSW-5 @ 10'	S	Aug-14-08 13:10		310167-002
SSW-1 @ 10'	S	Aug-14-08 13:05		310167-003





Project Name: Monument Barber 10" Sour

Contact: Camille Reynolds

Project Id: 2000-10655

Date Received in Lab: Thu Aug-14-08 04:45 pm

Report Date: 18-AUG-08

Project Location: Lea County, NM					Keport Date:	18-AUG-08	
					<b>Project Manager:</b>	Brent Barron, II	
	Lab Id:	310167-001	310167-002	310167-003			
Analysis Domostad	Field Id:	ESW-5 @ 10'	WSW-5 @ 10'	SSW-1 @ 10'			
naicanhay sistimut	Depth:						
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	Aug-14-08 13:00	Aug-14-08 13:10	Aug-14-08 13:05			
BTFX hv FPA 8021B	Extracted:	Aug-15-08 15:30	Aug-15-08 15:30	Aug-15-08 15:30			
	Analyzed:	Aug-16-08 00:28	Aug-16-08 00:53	Aug-16-08 01:16			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		ND 0.0011	1100.0 UN	ND 0.0012			
Tolucne		ND 0.0022	ND 0.0022	ND 0.0023			
Ethylbenzene		0.0018 0.0011	1100.0 UN	ND 0.0012			
m,p-Xylenes		0.0076 0.0022	ND 0.0022	ND 0.0023			
o-Xylene		0.0023 0.0011	1100.0 GN	ND 0.0012			
Total Xylcnes		0.0099	DN	DN			
Total BTEX		0.0117	ND	QN			
Percent Moisture	Extracted:						
	Analyzed:	Aug-15-08 17:00	Aug-15-08 17:00	Aug-15-08 17:00			
	Units/RL:	% RL	% RL	% RL			
Percent Moisture		10.1	9.61	14			
TPH By SW8015 Mod	Extracted:	Aug-15-08 16:45	Aug-15-08 16:45	Aug-15-08 16:45			
	Analyzed:	Aug-16-08 21:27	Aug-16-08 21:53	Aug-16-08 22:45			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		ND 16.7	ND 16.6	ND 17.4			
C12-C28 Diesel Range Hydrocarbons		95.9 16.7	98.7 16.6	ND 17.4			
C28-C35 Oil Range Hydrocarbons		ND 16.7	ND 16.6	ND 17.4			
Total TPH		95.9	98.7	DN			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best, addigment of XENCO Laborancies. XEXCO Laborancies assumes to responsibility and makes no warranzy to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi Since 1990

Odessa Laboratory Director Brent Barron

Page 4 of 14



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- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

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9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, Suite 104, San Antonio, TX 78238	(210) 509-3334	(210) 509-3335
2505 N. Falkenburg Rd., Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
5017 Financial Dr., Norcross, GA 30071	(770) 449-8800	(770) 449-5477

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### Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

Batch: 1 M SURROGATE True Amount	atrix: Soil RECOVERY \$	STUDY	
SURROGATE True Amount	RECOVERY	STUDY	
True Amount			
וסן	Recovery %R	Control Limits %R	Flags
	[J]		1
0.0300	97	80-120	1
0.0300	106	80-120	1
Batch: ] M:	atrix: Soil		
SURRUGATE	RECOVERTS	STUDY	
True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
0.0300	97	80-120	(
0.0300	107	80-120	
Batch: 1 M	atrix: Soil	L	
SURROGATE	RECOVERY S	STUDY	
True Amount [B]	Recovery %R	Control Limits %R	Flags
	[11]		i
0.0300	116	80-120	<u> </u>
0.0300	127	80-120	**
Batch: 1 Mr	atrix: Soil		_
SURROGATE	RECOVERY S	STUDY	
True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
0 0300		80-120	. <u> </u>
0.0300	101	80-120	
		L	
SURROGATE	RECOVERY {	STUDY	
True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
			I
I 0.0300	1 113 ,	4 80-120	•
	0.0300           Batch:         1         Ma           SURROGATE         True           Amount         [B]           0.0300         0.0300           Batch:         1         Ma           0.0300         0.0300           Batch:         1         Ma           SURROGATE         True           Amount         [B]           0.0300         0.0300           Batch:         1         Ma           SURROGATE         True           Amount         [B]           0.0300         0.0300           Batch:         1         Ma           SURROGATE         True           Amount         [B]           0.0300         0.0300           Batch:         1         Ma           SURROGATE         True           Amount         [B]	0.00000.0000Batch:1Matrix:SoilSURROGATE RECOVERY STrue Amount [B]Recovery %R [D]0.0300970.0300107Batch:1Matrix:SURROGATE RECOVERY STrue Amount [B]Recovery %R [D]0.03001160.03001160.03001160.0300127Batch:1Matrix:SURROGATE RECOVERY STrue Amount [B]Recovery %R [D]0.03001160.03001160.03001160.0300118SURROGATE RECOVERY STrue (B]Recovery %R [D]0.03001180.0300101Batch:1Matrix:SURROGATE RECOVERY[B]%R %R [D]	Normal         Normal           0.0300         106         80-120           Batch:         1         Matrix:         Soil           SURROGATE         RECOVERY         STUDY           True         Recovery         Control           Amount         Recovery         %R           [B]         %R         [D]           0.0300         97         80-120           0.0300         97         80-120           0.0300         107         80-120           0.0300         107         80-120           Batch:         1         Matrix:         Soil           SURROGATE         RECOVERY         STUDY           True         Recovery         Control           Amount         Recovery         %R           [B]         %R         %R           [D]         0.0300         116         80-120           Batch:         1         Matrix:         Soil           SURROGATE         RECOVERY         Study           [B]         %R         [D]           0.0300         116         80-120           Batch:         1         Matrix:         Soil

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogatc Recovery [D] = 100 * A / B

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All results are based on MDL and validated for QC purposes.

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### Form 2 - Surrogate Recoveries



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Project Name: Monument Barber 10" Sour

/ork Order #: 310167		Project I	<b>D:</b> 2000-1065	55	
Lab Batch #: 731303 Sample: 514022	2-1-BKS / BKS Bat	tch: ¹ Matr	ix: Solid		
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes	0.0001	0.0000		00.100	
1,4-Difluorobenzene	0.0284	0.0300	95	80-120 80-120	
			· . Salid	00.20	
Lab Batch #: 731303 Sample: 314022 Units: mg/kg	SU	RROGATE R	ECOVERY S	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0350	0.0300	117	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	
Lab Batch #: 731303 Sample: 514022	2-1-BSD / BSD Bat	tch: 1 Matr	ix: Solid		
Units: mg/kg	SU	RROGATE R	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	
Lab Batch #: 731290 Sample: 310167	7-001 / SMP Bat	tch: 1 Matr	ix: Soil		
Units: mg/kg	SU	RROGATE R	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.6	100	86	70-135	
o-Terphenyl	48.2	50.0	96	70-135	
Lab Batch #: 731290 Sample: 310167	7-002 / SMP Bat	tch: l Matr	ix: Soil	······	•
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	
	A	Ттие		Control	
TPH By SW8015 Mod	Amount Found [A]	Amount [B]	Recovery %R [D]	Limits %R	Flags
TPH By SW8015 Mod Analytes 1-Chlorooctanc	Found [A]	Amount [B]	Recovery %R [D] 81	Limits %R 70-135	Flags

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

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Surrogate Recovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.

	`[ <b>@</b> @]
ALC: NO.	
LCOOL	atorics
STREET, STORE	2012年1月1日日。 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012年1月1日 2012 2012 2012 2012 2012 2012 2012 20

### Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

/ork Order #: 310167			Project II	): 2000-1065	55	
Lab Batch #: 731290	Sample: 310167-003 / SM	IP Bat	tch: 1 Matri	x: Soil		
Units: mg/kg	·····	SU!	RROGATE RE	COVERY S	STUDY	
TPH By SW8(	015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Апагую	25	<u> '</u>	<u> </u>	1~1		L
1-Chlorooctanc		79.0	100	79	70-135	L
o-Terphenyl		44.2	50.0	88	70-135	L
Lab Batch #: 731290	Sample: 310167-003 S / N	AS Bat	tch: 1 Matri	ix: Soil		
Units: mg/kg		SU	<b>RROGATE RF</b>	COVERY S	STUDY	
TPH By SW80	015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
- 1-Chlorooctane		78.4	100	78	70-135	i
o-Terphenyl		47.6	50.0	95	70-135	[
Lab Batch #: 731290	Sample: 310167-003 SD /	/ MSD Ba	tch: ¹ Matri	ix: Soil	·	
Units: mg/kg		SU	RROGATE RF	COVERY S	STUDY	
TPH By SW8	015 Mod	Amount	True	<b></b>	Control	
Analyte	es	Found [A]	Amount [B]	Recovery %R [D]	Limits %R	Flags
I-Chlorooctane		81.0	100	81	70-135	[
o-Terphenyl		48.3	50.0	97	70-135	[
Lab Batch #: 731290	Sample: 514017-1-BKS /	BKS Ba	tch: ¹ Matri	ix: Solid	<u> </u>	
Units: mg/kg	-	SU	<b>RROGATE RF</b>	COVERY S	STUDY	·
TPH By SW8(	015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		80.4	100	80	70-135	1
o-Tcrphcnyl		46.7	50.0	93	70-135	í
Lab Batch #: 731290	Sample: 514017-1-BLK /	BLK Ba	tch: ¹ Matri	ix: Solid	<b></b>	
Units: mg/kg	<b>-</b> !	SU	RROGATE RF	COVERY S	STUDY	
TPH By SW80	J15 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analyte	28	<u> </u>				l
1-Chlorooctanc		82.7	100	83	70-135	<b> </b>
o-Terphenyl	,	46.4	50.0	93	70-135	í

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

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Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



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### Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

Work	Order	#:	310167

ork Order #: Lab Batch #: Units:	310167 731290 mg/kg	Sample: 514017-1-BSD / 1	BSD Ba	Project II tch: ¹ Matri RROGATE RE	D: 2000-1065 x: Solid ECOVERY S	55 STUDY	
	TPH By SW80 Analytes	15 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctanc			79.5	100	80	70-135	
o-Terphenyl			46.2	50.0	92	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis *** Poor recoveries due to dilution Surrogate Recovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.



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**BS / BSD Recoveries** 



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Project Name: Monument Barber 10" Sour

Work Order #: 310167 Lab Batch ID: 731303 Analyst: ASA

Sample: 514022-1-BKS

Date Prepared: 08/15/2008 Batch #: 1

Date Analyzed: 08/15/2008 Matrix: Solid

Project ID: 2000-10655

Units: mg/kg		BLANK	( /BLANK S	PIKE / B	LANK S	PIKE DUPL	ICATE I	RECOVE	RY STUD	Y	
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Dunlicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	E	[ <b>B</b> ]	[c]	ē	[E]	Result [F]	[0]	2			
Benzene	QN	0.1000	0.1124	112	0.1	0.0997	100	12	70-130	35	
Toluene	QN	0.1000	0.1126	113	0.1	0.0991	66	13	70-130	35	
Ethylbenzene	QN .	0.1000	0.1200	120	0.1	0.1084	108	10	71-129	35	
m,p-Xylenes	QN	0.2000	0.2508	125	0.2	0.2234	112	12	70-135	35	
o-Xylene	QN	0.1000	0.1153	115	0.1	0.1020	102	12	71-133	35	
Analyst: IRO	Dai	te Prepare	<b>d:</b> 08/15/200	8			Date An	alyzed: 0	8/16/2008		

Sample: 514017-1-BKS Lab Batch ID: 731290

Batch #: 1

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY** Matrix: Solid

Units: mg/kg		BLAN	K /BLANK S	PIKE / B	LANK S	PIKE DUPL	ICATE I	RECOVE	CRY STUD	Y	
TPH By SW8015 Mod	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	Blk. Spk Dup.	RPD	Control Limits	Control Limits	Flag
	[ <b>A</b> ]		Result	%R		Duplicate	%R	%	%R	%RPD	
Analytes		[ <b>B</b> ]		<u>a</u>	E	Result [F]	[0]				
26-C12 Gasoline Range Hydrocarbons	QN	1000	844	84	1 000	835	84	1	20-135	35	
C12-C28 Diesel Range Hydrocarbons	UN	1000	851	85	1000	830	84	-	70-135	35	

Relative Percent Difference RPD = 200*((C-F)/(C+F)) Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

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**Project Name: Monument Barber 10" Sour** 



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Work Order # 310167

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Lab Batch ID: 731303

Date Analyzed: 08/16/2008 Reporting Units: mg/kg

-Batch #: QC- Sample ID: 310166-001 S

Matrix: Soil

Project ID: 2000-10655

Analyst: ASA Date Prepared: 08/15/2008

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result {C]	Spiked Sample %R [D]	Spike Added {E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	QN	0.1062	0.0828	78	0.1062	0.0873	82	5	70-130	35	
Toluene	QN	0.1062	0.0810	76	0.1062	0.0844	79	4	70-130	35	
Ethylbenzene	QN	0.1062	0.0855	8	0.1062	0.0905	85	5	71-129	35	
m,p-Xylenes	QN	0.2124	0.1768	83	0.2124	0.1863	88	. 9	70-135	35	
o-Xylene	ND	0.1062	0.0781	74	0.1062	0.0832	78	5	71-133	35	
Lab Batch ID: 731290 Date Analyzed: 08/17/2008	)C- Sample ID: Date Prepared:	310167- 08/15/2(	003 S 008	Bat Ant	ch #: ilyst: I	1 Matrix RO	: Soil				

731290	08/17/2008
Lab Batch ID:	Date Analyzed:

MATBIX SPIRE / MATBIX SPIRE DUPI ICATE BECOVERV STUDY

Reporting Units: mg/kg		W/	<b>VTRIX SPIKE</b>	/ MATE	IIX SPIE	<b>CE DUPLICA</b>	re reco	VERY S	TUDY		
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Kesult [A]	Added [B]	<u>[]</u>	8% [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	QN	1160	915	79	1160	096	83	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	QN	1160	906	78	1160	954	82	5	70-135	35	

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested. I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*(C-F)/(C+F)

Matrix Spike Duplicate Percent Recovery  $[G] = 100^{*}(F-A)/E$ 

Page 11 of 14



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### Sample Duplicate Recovery



### Project Name: Monument Barber 10" Sour

Work Order # 310167

Lab Batch #: 731187	<b>Project ID:</b> 2000-10655	
Date Analyzed: 08/15/2008	Date Prepared: 08/15/2008 Analyst: JLG	
QC- Sample ID: 310167-001 D	Batch #: 1 Matrix: Soil	
Reporting Units: %	SAMPLE / SAMPLE DUPLICATE RECOVER	Y
Percent Moisture	Parent Sample Result [A]Sample DuplicateControl Limits[A]Result (B)%RPD	
Analyte		
Percent Moisture	10.1 9.53 6 20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

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## Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND AMAL YSIS REQUEST 12800 West 1-20 East Odesse, Taxas 79785 Fax: 432-563-1713

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PAGE 01 OF	gies, LLC								Date Sampled	8/14/2008	8/14/2008	B/14/2008								teceived by	Received by:	agived by ELD
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Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

Basin Env. Philas Client: 8.14.08 16:45 Date/ Time. 310167 Lab ID # : OIL Initials:

### Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	Yes	No	5.5 °C
#2	Shipping container in good condition?	Yes	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	(res)	No	Not Present
#5	Chain of Custody present?	(es)	No	
#6	Sample instructions complete of Chain of Custody?	es	No	
#7	Chain of Custody signed when relinquished/ received?	(es)	No	
#8	Chain of Custody agrees with sample label(s)?	(es)	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	Yes/	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	(Tes)	No	
#11	Containers supplied by ELOT?	(es)	No	
#12	Samples in proper container/ bottle?	(es)	No	See Below
#13	Samples properly preserved?	Ves	No	See Below
#14	Sample bottles intact?	(res)	No	
#15	Preservations documented on Chain of Custody?	(es)	No	
#16	Containers documented on Chain of Custody?	(es)	No	
#17	Sufficient sample amount for indicated test(s)?	(es)	No	See Below
#18	All samples received within sufficient hold time?	(es)	No	See Below
#19	Subcontract of sample(s)?	Yes	No	Not Applicable
#20	VOC samples have zero headspace?	Yes	No	Not Applicable

Variance Documentation

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Date/ Time:

Contacted by:

Contact:

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Regarding:

Corrective Action Taken:

Check all that Apply:

See attached e-mail/ fax Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

### **Analytical Report 310163**

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### PLAINS ALL AMERICAN EH&S

**Project Manager: Camille Reynolds** 

Monument Barber 10" Sour 2000-10655

18-AUG-08





E84880

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America Midland - Corpus Christi - Atlanta Page 1 of 13



18-AUG-08



Project Manager: **Camille Reynolds PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **310163 Monument Barber 10'' Sour** Project Address: Lea County, NM

### **Camille Reynolds:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 310163. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 310163 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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Sample Cross Reference 310163

PLAINS ALL AMERICAN EH&S, Midland, TX

Monument Barber 10" Sour

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor-1	S	Aug-14-08 13:15		310163-001



CUCO construited Project 1d: 2000-10655

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Contact: Camille Reynolds

ertificate of Analysis Summary 31016 PLAINS ALL AMERICAN EH&S, Midland, TX Project Name: Monument Barber 10" Sour

Date Received in Lab: Thu Aug-14-08 04:45 pm Report Date: 18-AUG-08

Project Location: Lea County, NM			Report Date: 18-AUG-08 Proised Manager: Brent Barron II	
	Lab Id:	310163-001		
Analysis Pranostad	Field Id:	Floor-1		
nation by the decimate	Depth:			
	Matrix:	SOIL		
	Sampled:	Aug-14-08 13:15		
RTFY hv FPA 8071R	Extracted:	Aug-15-08 15:30		
	Analyzed:	Aug-15-08 23:40		
	Units/RL:	mg/kg RL		
Benzenc		1100.0 UN		
Toluene		ND 0.0022		
Ethylbenzene		ND 0.0011		
m,p-Xylenes		ND 0.0022		
o-Xylene	-	1100.0 UN		
Total Xylenes		DN		
Total BTEX		DN		
Percent Moisture	Extracted:			
	Analyzed:	Aug-15-08 17:00		
	Units/RL:	% RL		
Percent Moisture		8.82		
TPH RV SW8015 Mod	Extracted:	Aug-15-08 16:45		
	Analyzed:	Aug-16-08 19:43		
	Units/RL:	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 16.5		
C12-C28 Diesel Range Hydrocarbons		30.1 16.5		
C28-C35 Oil Range Hydrocarbons		ND 16.5		
Total TPH		30.1		
	-			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expensed formagional this analytical report represents the base judgement of XEWCD taboratories XENCD Laboratories astress to responsibility and these no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

Brent Barron Odessa Laboratory Director



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- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

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9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, Suite 104, San Antonio, TX 78238	(210) 509-3334	(210) 509-3335
2505 N. Falkenburg Rd., Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
6017 Financial Dr., Norcross, GA 30071	(770) 449-8800	(770) 449-5477

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### Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

/ork Order #: 310163		Project II	): 2000-1065	55	
Lab Batch #: /31303 Sample: 3100-001 / 38 Units: mg/kg	1P Bai	RROGATE RF	x: Son ECOVERY {	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes	0.0350	0.0300		00.120	<b></b>
1,4-Difluorobenzene	0.0350	0.0300		80-120	t
4-Bromonuorodenzene	0.0295	0.0500	90	80-120	<u> </u>
Lab Batch #: 731303 Sample: 310166-001 S / )	MS Bat	tch: 1 Matri	x: Soil		
Units: mg/kg	SU	RROGATE RE	COVERY S	STUDY	T
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I,4-Difluorobenzene	0.0292	0.0300	97	80-120	ſ
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	[
Lab Batch #: 731303 Sample: 310166-001 SD	/ MSD Bat	tch: 1 Matri	ix: Soil	·	
Units: mg/kg	SU	RROGATE RF	COVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	!	<u>                                     </u>	וטן		Ĺ
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	<b>I</b>
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	L
Lab Batch #: 731303 Sample: 514022-1-BKS /	BKS Bat	tch: 1 Matri	x: Solid		
Units: mg/kg	SU	RROGATE RF	COVERY S	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene	0.0284	0.0300	95	80-120	ľ
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	[
Lab Batch #: 731303 Sample: 514022-1-BLK	BLK Bat	tch: 1 Matri	ix: Solid	L	<u></u>
Units: mg/kg	SU	RROGATE RF	COVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		1	[ [D]	t j	
Analytes	0.0350	0.0300	[ <b>D</b> ] 117	80-120	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B All results are based on MDL and validated for QC purposes.

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### Form 2 - Surrogate Recoveries



Project Name: Monument Barber 10" Sour

vork Order #: 310163		Project I	<b>D:</b> 2000-1065	<i>i</i> 5	
Lab Batch #: 731303 Sample: 51402	.2-1-BSD / BSD Bat	tch: 1 Matr	ix: Solid		
Units: mg/kg	SUI	RROGATE RI	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes					L
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	I
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	L
Lab Batch #: 731290 Sample: 31016		tch: 1 Matr	ix: Soil		
Units: mg/kg	SUI	RROGATE RI	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.4	100	81	70-135	ſ
o-Terphenyl	45.3	50.0	91	70-135	í
Lab Batch #: 731290 Sample: 31016	07-003 S / MS Bat	tch: 1 Matr	ix: Soil		
Units: mg/kg	SU	RROGATE RJ	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	78.4	100	78	70-135	r
o-Terphenyl	47.6	50.0	95	70-135	
Lab Ratch #. 731290 Sample: 31016	I	toh: 1 Matr	نىيىيە ئەر Soil	<u> </u>	
Units: mg/kg	SU!	RROGATE R	ECOVERY (	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	81.0	100	81	70-135	
o-Terphenyl	48.3	50.0	97	70-135	
Lab Batch #: 731290 Sample: 51401		toht 1 Matr	نیست. منه Solid	i	
Units: mg/kg	SU!	RROGATE R	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		1	[D]	1 ,	ł
· · · · · · · · · · · · · · · · · · ·	I	·			
I-Chlorooctanc	80.4	100	80	70-135	۱ 

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.



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### Form 2 - Surrogate Recoveries



### Project Name: Monument Barber 10" Sour

Vork Order #: 310163 Lab Batch #: 731290 Sample: 5140	17-1-BLK / BLK Ba	Project I tch: 1 Matr	<b>D:</b> 2000-1065 rix: Solid	55	
Units: mg/kg	SU	RROGATE R	ECOVERY S	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes					
1-Chlorooctane	82.7	100	83	70-135	1
o-Tcrphcnyl	46.4	50.0	93	70-135	
Lab Batch #: 731290 Sample: 5140	17-1-BSD / BSD Ba	tch: 1 Matr	ix: Solid		
Units: mg/kg	SU	RROGATE R	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1. Chloroctane	70.5	100		70.125	
1-Cinorouciane		100		70-135	
o-Terphenyl	46.2	50.0	92	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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**BS / BSD Recoveries** 



Project Name: Monument Barber 10" Sour

Work Order #: 310163 Analyst: ASA Lab Batch ID: 731303

**Date Prepared:** 08/15/2008 **Batch #:** 1

Sample: 514022-1-BKS

Date Analyzed: 08/15/2008 Matrix: Solid

Project ID: 2000-10655

Units: mg/kg			BLANK	/BLANK S	PIKE / B	LANKS	PIKE DUPL	ICATE 1	RECOVE	KY STUD	Y	
BTEX by EP/	A 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duolicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes			[ <b>B</b> ]	[C]	[ <b>q</b> ]	[E]	Result [F]	[6]				
Benzene		QN	0.1000	0,1124	112	0.1	7660.0	100	12	70-130	35	
Toluene		QN	0.1000	0.1126	113	0.1	0.0991	66	13	70-130	35	
Ethylbenzene		DN	0.1000	0.1200	120	0.1	0.1084	108	10	71-129	35	
m,p-Xylencs		DN	0.2000	0.2508	125	0.2	0.2234	112	12	70-135	35	
o-Xylene		ND	0.1000	0.1153	115	0.1	0.1020	102	12	71-133	35	
Analyst: IRO	-	Da	te Prepare	<b>d:</b> 08/15/200	8			Date Ar	alyzed: 0	8/16/2008		
I ah Batah ID: 721200	Samula: 514017 1 B	5.7	Ratch	#· 1					Matrix: S	olid		

ab Batch ID: 731290 Sample: 514017-1	-BKS	Batc	I #: 1					Maulty.			
Units: mg/kg		BLAN	K /BLANK S	PIKE / B	LANK S	PIKE DUPL	ICATE I	RECOVE	RY STUD	Y	
TPH By SW8015 Mod	Blank Sample Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	Blk. Spk Dup.	RPD	Control Limits	Control Limits	Flag
	[ <b>A</b> ]	i	Result	%R		Duplicate	%R	%	%R	%RPD	
Analytes		[B]	[c]	[ <b>a</b> ]	[E]	Result [F]	<u>c</u>				
C6-C12 Gasoline Range Hydrocarbons	DN	1000	844	84	1 000	835	84	1	70-135	35	
C12-C28 Dicscl Range Hydrocarbons	DN	1000	851	85	1000	839	84	1	70-135	35	

Relative Percent Difference RPD = 200*((C-F)/(C+F)) Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries 0 



Project Name: Monument Barber 10" Sour



Work Order # 310163 Lab Batch ID: 731303

Date Analyzed: 08/16/2008 Reporting Units: mg/kg

Matrix: Soil -ASA Analyst: Batch #: QC- Sample ID: 310166-001 S Date Prepared: 08/15/2008

Project ID: 2000-10655

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	QN	0.1062	0.0828	78	0.1062	0.0873	82	5	20-130	35	
Tolucne	ND	0.1062	0.0810	76	0.1062	0.0844	79	4	70-130	35	
Ethylbenzene	QN	0.1062	0.0855	81	0.1062	0.0905	85	5	71-129	35	
m,p-Xylencs	QN	0.2124	0.1768	83	0.2124	0.1863	88	6	70-135	35	
o-Xylcne	ND	0.1062	0.0781	74	0.1062	0.0832	78	5	71-133	35	
Lab Batch ID: 731290 (	)C- Sample ID:	310167-	003 S	Bat	ch #:	1 Matrix:	: Soil				

Date Analyzed: 08/17/2008	Date Prepared:	17/01/80	201	Ans	uyst:	IKO						
Reporting Units: mg/kg		W	ATRIX SPIKE	/ MATF	IIAS XI	<b>(E DUPLICA</b>	TE RECO	VERY S	TUDY			
This D. CUROALS MAN	Parent		Spiked Sample	Spiked		Duplicate	Spiked		Control	Control		
noin ctooms of ult	Sample	Spike	Result	Sample	Spike	Spiked Sample	Dup.	RPD	Limits	Limits	Flag	
	Result	Added		%R	Added	Result [F]	%R	%	%R	%RPD		
Analytes	[ <b>A</b> ]	[ <b>B</b> ]		[ <b>0</b> ]	[E]		[6]					
C6-C12 Gasoline Range Hydrocarbons	QN	1160	915	6L	1160	960	83	s	70-135	35		
C12-C28 Diesel Range Hydrocarbons	QN	1160	906	78	1160	954	82	S	70-135	35		

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*((C-F)/(C+F))

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E



### Sample Duplicate Recovery



### Project Name: Monument Barber 10" Sour

Work Order # 310163

Lab Batch #:	731187				Project I	<b>D:</b> 2000-10	655
Date Analyzed:	08/15/2008	Date Pre	pared: 08/1	5/2008	Analy	st: JLG	
QC- Sample ID:	310167-001 D	В	atch #: 1		Matr	ix: Soil	
Reporting Units:	%		SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
	Percent Moisture		Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
	Analyte			<b>[B</b> ]			
Percent Moisture			10.1	9.53	6	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

## Environmental Lab of Texas

Project Name: Monument Barber 10' Sour CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 13800 West 1-26 East Odiessa, Texas 79765 Fax: 432-463-1713

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hoject Manager: Curt S	ompany Name Basin	ompany Address: 2800 P	lity/State/Zip: Loving	elephone No: (575) 4	ampler Signature:	1	Δ	* 3/U/u3	LIEFO COD	Floor -1									tructions:	د (ار		P ) M	d by:
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### Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In Basin Env. Plains

Date/ Time:	814.08 16:45
Lab ID # :	310163
Initials	OIL

### Sample Receipt Checklist

	F			Client Initial
#1	Temperature of container/ cooler?	Ves	No	Chem midan
#2	Shipping container in good condition?	Ves	Ňo	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	(res)	No	Not Present
#5	Chain of Custody present?	(es)	No	
#6	Sample instructions complete of Chain of Custody?	(es)	No	
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No	
#8	Chain of Custody agrees with sample label(s)?	(es)	No	ID written on Cont / Lid
#9	Container label(s) legible and intact?	Yes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	(Tes)	No	
#11	Containers supplied by ELOT?	(es)	No	
#12	Samples in proper container/ bottle?	(res)	No	See Below
#13	Samples properly preserved?	(es)	No	See Below
#14	Sample bottles intact?	(Yes)	No	
#15	Preservations documented on Chain of Custody?	(es)	No	
#16	Containers documented on Chain of Custody?	(Ves)	No	
#17	Sufficient sample amount for indicated test(s)?	(es)	No	See Below
#18	All samples received within sufficient hold time?	(es)	No	See Below
#19	Subcontract of sample(s)?	Yes	No	Not Applicable
#20	VOC samples have zero headspace?	Yes	No	Not Applicable

### Variance Documentation

Date/ Time;

Contact:

Client:

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Regarding:

Corrective Action Taken:

Check all that Apply:

See attached e-mail/ fax

Contacted by:

_____

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

### **Analytical Report 311100**

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for

### PLAINS ALL AMERICAN EH&S

**Project Manager: Camille Bryant** 

Monument Barber 10" Sour 2000-10655

29-AUG-08



### 12600 West I-20 East Odessa, Texas 79765

Texas certification numbers: Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers: Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675 Norcross(Atlanta), GA E87429

> South Carolina certification numbers: Norcross(Atlanta), GA 98015

> North Carolina certification numbers: Norcross(Atlanta), GA 483

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Page 1 of 14



29-AUG-08

Project Manager: Camille Bryant PLAINS ALL AMERICAN EH&S 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: 311100 Monument Barber 10" Sour Project Address: Lea County, NM

### **Camille Bryant:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 311100. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 311100 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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### Sample Cross Reference 311100

### PLAINS ALL AMERICAN EH&S, Midland, TX

Monument Barber 10" Sour

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor-2 @ 16'	S	Aug-25-08 14:00		311100-001
Floor-3 @ 16'	S	Aug-25-08 14:05		311100-002
Floor-4 @ 16'	S	Aug-25-08 14:10		311100-003
Floor-5 @ 16'	S	Aug-25-08 14:15		311100-004
Floor-6 @ 16'	S	Aug-25-08 14:20		311100-005

 Certificate of Analysis Summary 311100 PLAINS ALL AMERICAN EH&S, Midland, TX 

Project Name: Monument Barber 10" Sour

Contact: Camille Bryant

Project Id: 2000-10655

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Date Received in Lab: Tue Aug-26-08 06:00 pm Report Date: 29-AUG-08

Project Location 1 ea County NM					Report Date:	29-AUG-08	
					Project Manager:	Brent Barron, II	
	Lab Id:	311100-001	311100-002	311100-003	311100-004	311100-005	
Land Downsteed	Field Id:	Floor-2 @ 16'	Floor-3 @ 16'	Floor-4 @ 16'	Floor-5 @ 16'	Floor-6 @ 16'	
uaisanhay sisdinuy	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	Aug-25-08 14:00	Aug-25-08 14:05	Aug-25-08 14:10	Aug-25-08 14:15	Aug-25-08 14:20	
RTFY by FPA 80218	Extracted:	Aug-28-08 15:00	Aug-28-08 15:00	Aug-28-08 15:00	Aug-28-08 15:00	Aug-28-08 15:00	
	Analyzed:	Aug-28-08 22:36	Aug-28-08 22:59	Aug-28-08 23:22	Aug-28-08 23:45	Aug-29-08 00:07	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		ND 0.0011	ND 0.0012	ND 0.0011	1100'0 QN	ND 0.0011	
Tolucne		ND 0.0022	ND 0.0023	ND 0.0021	ND 0.0022	ND 0.0023	
Ethylbenzene		ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011	
m,p-Xylenes		ND 0.0022	ND 0.0023	ND 0.0021	ND 0.0022	ND 0.0023	
o-Xylene		ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011	
Total Xylencs		DN	QN	DN	QN	DN	
Total BTEX		DN	QN	DN	ŊŊ	QN	
Percent Moisture	Extracted:						
	Analyzed:	Aug-27-08 17:00	Aug-27-08 17:00	Aug-27-08 17:00	Aug-27-08 17:00	Aug-27-08 17:00	
	Units/RL:	% RL	% RL	% RL	% RL	% RL	
Percent Moisture		10.30 1.00	14.11 1.00	4.79 1.00	7.98 1.00	12.96 1.00	
TPH By SW8015 Mod	Extracted:	Aug-27-08 12:00	Aug-27-08 12:00	Aug-27-08 12:00	Aug-27-08 12:00	Aug-27-08 12:00	
	Analyzed:	Aug-28-08 08:02	Aug-28-08 08:27	Aug-28-08 08:53	Aug-28-08 09:19	Aug-28-08 09:46	

This analytical report, and the entire data paokage it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report reports the best juggment of XEWCO Laboratories. XEWCO Laboratories assumes to responsibility and makes no warmany to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

Odessa Laboratory Director Brent Barron 5

17.2 17.2 17.2

> 26.1 26.1 26.1

mg/kg ND 38.6

mg/kg ND 18.0

> 17.5 17.5

RL 17.5

mg/kg ND 35.6 ND 35.6 35.6

> RL 16.7 16.7

Units/RL:

C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons

C28-C35 Oil Range Hydrocarbons

Total TPH

16.7

Q Q

mg/kg ND ND

ND 18

ND 38.6

RL

mg/kg

RL 16.3 16.3 16.3

RL 15.8 15.8 15.8

Page 4 of 14



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- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

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701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
332 Blackberry Drive, Suite 104, San Antonio, TX 78238	(210) 509-3334	(210) 509-3335
2505 N. Falkenburg Rd., Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
017 Financial Dr., Norcross, GA 30071	(770) 449-8800	(770) 449-5477



### Form 2 - Surrogate Recoveries

Project Name: Monument Barber 10" Sour

Vork Orders : 311100, Lab Batch #: 732589 Units: mg/kg	Sample: 311100-001 / SM	P Bat	Project II tch:  Matri RROGATE RI	D: 2000-1065 ix: Soil ECOVERY S	55 STUDY	
BTEX by I	EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	yies	0.0278	0.0200	126	80.120	
4-Bromofluorobenzene	······	0.0304	0.0300	101	80-120	······ ·
Lab B. (1) # 722580	Servelar 211100 002 / SM	D D-	L I Matri	L		
Lad Batch #: 732309	Sample: 511100-0027 SM		REACATE PI	TCOVERV	STUDY	
BTEX by I Anal	CPA 8021B ytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0362	0.0300	121	80-120	**
4-Bromofluorobenzene		0.0310	0.0300	103	80-120	
Lab Batch #: 732589	Sample: 311100-003 / SM	P Bat	tch: 1 Matri	x: Soil		
Units: mg/kg		SU	RROGATE RI	COVERY	STUDY	
BTEX by I	EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	ytes	0.02(2	0.0200	121	80.120	**
4-Bromofluorobenzene	<u> </u>	0.0306	0.0300	102	80-120	
722500		0.0500	0.0500	0.11		
Lab Batch #: /32589	Sample: 311100-004 / SM	P Bat	tch: Matri	ix: Soil		
BTEX by I	EPA 8021B vtes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	•	0.0365	0.0300	122	80-120	**
4-Bromofluorobenzene		0.0314	0.0300	105	80-120	
Lab Batch #: 732589 Units: mg/kg	Sample: 311100-005 / SM	P Ba	tch: 1 Matri	ix: Soil	STUDY	<b>.</b>
BTEX by I Anal	EPA 8021B ytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0357	0.0300	119	80-120	
4-Bromofluorobenzene		0.0305	0.0300	102	80-120	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

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Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



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### Form 2 - Surrogate Recoveries

Project Name: Monument Barber 10" Sour

Work Orders : 311100,		Project II	<b>):</b> 2000-1065	55	
Lab Batch #: 732589 Sample: 311229-001 S	MS Bat	tch: 1 Matri	x: Soil		
Units: mg/kg	SU	RROGATE RE	ECOVERY S	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	
Lab Batch #: 732589 Sample: 311229-001 SI	D/MSD Bat	tch: 1 Matri	ix: Soil	<u> </u>	
Units: mg/kg	SU	RROGATE RI	ECOVERY S	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	
Lab Batch #: 732589 Sample: 514764-1-BKS	BKS Bat	tch: 1 Matri	ix: Solid		
Units: mg/kg	SU	RROGATE RI	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	0.0277	0.0200	1~1	80.120	
4-Bromofluorobenzene	0.0277	0.0300	86	80-120	
	0.0207	0.0000		00120	
Lab Batch #: /32589 Sample: 514/64-1-BLK	./ BLK Bat	ch: 1 Matri	ix: Solid		
BTEX by EPA 8021B	Amount	True		Control	Flago
Analytes	Found [A]	Amount [B]	Recovery %R [D]	Limits %R	riags
Analytes	Found [A] 0.0374	Amount [B] 0.0300	Recovery %R [D] 125	Limits %R 80-120	**
Analytes 1,4-Difluorobenzene 4-Bromofluorobenzene	Found [A] 0.0374 0.0290	Amount [B] 0.0300 0.0300	Recovery %R [D] 125 97	Limits %R 80-120 80-120	**
Analytes          1,4-Difluorobenzene         4-Bromofluorobenzene         Lab Batch #: 732589         Sample: 514764-1-BSE	Found [A] 0.0374 0.0290	Amount [B] 0.0300 0.0300	Recovery %R [D] 125 97 ix: Solid	Limits %R 80-120 80-120	**
Analytes          Analytes         1,4-Difluorobenzene         4-Bromofluorobenzene         Lab Batch #: 732589         Sample: 514764-1-BSE         Units: mg/kg	Found [A] 0.0374 0.0290 0 / BSD Bat SU	Amount [B] 0.0300 0.0300 ch: 1 Matri RROGATE RH	Recovery %R [D] 125 97 ix: Solid ECOVERY S	Eimits %R 80-120 80-120 STUDY	**
Analytes          1,4-Difluorobenzene         4-Bromofluorobenzene         Lab Batch #: 732589         Sample: 514764-1-BSE         Units: mg/kg         BTEX by EPA 8021B         Analytes	Found [A] 0.0374 0.0290 0/ BSD Bat SU Amount Found [A]	Amount [B] 0.0300 0.0300 tch: 1 Matri RROGATE RH True Amount [B]	Recovery %R [D] 125 97 ix: Solid ECOVERY S Recovery %R [D]	Limits %R 80-120 80-120 STUDY Control Limits %R	** Flags
Analytes          1,4-Difluorobenzene         4-Bromofluorobenzene         Lab Batch #: 732589       Sample: 514764-1-BSE         Units: mg/kg         BTEX by EPA 8021B         Analytes         1,4-Difluorobenzene	Found [A] 0.0374 0.0290 0/ BSD Bat SU Amount Found [A] 0.0273	Amount [B] 0.0300 0.0300 tch: 1 Matri RROGATE RH True Amount [B] 0.0300	Recovery %R [D] 125 97 ix: Solid ECOVERY %R [D] 91	Limits %R 80-120 80-120 STUDY Control Limits %R 80-120	** Flags

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

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Surrogate Rccovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.



### Form 2 - Surrogate Recoveries

Project Name: Monument Barber 10" Sour

Vork Orders : 311100,			Project II	<b>D:</b> 2000-1065	55	
Lab Batch #: 732491 Sa	mple: 311100-001 / SMI	Bat	tch: 1 Matri	ix: Soil		
Units: mg/kg	]	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 M Analytes	Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		84.7	100	85	70-135	
o-Terpheny		47.1	50.0	94	70-135	
	211100.001.0 / M			C+1	L	I
Lab Batch #: 732491 Sa Units: mg/kg	imple: 311100-001 S7 M	S Bat	RROGATE RI	ECOVERY	STUDY	<u>.                                    </u>
TPH By SW8015 M Analytes	Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctanc		86.1	100	86	70-135	
o-Terphenyl		48.4	50.0	97	70-135	
Lab Batch #: 732491 Sa	mple: 311100-001 SD / 1	MSD Bat	tch: 1 Matri	ix: Soil		I
Units: mg/kg	[	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 I	Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		87.1	100	87	70-135	
o-Terphenyl		49.3	50.0	99	70-135	
Lah Batch #• 732491 Se	mnle: 311100-002 / SMI	) Rat	teh·   Matri	ix: Soil	L	
Units: mg/kg		SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 I Analytes	Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		90.4	100	90	70-135	
o-Terphenyl		49.4	50.0	99	70-135	
Lab Batch #: 732491 Sa	mple: 311100-003 / SMI	P Bat	tch: 1 Matr	ix: Soil	A	
Units: mg/kg	[	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 I Analytes	Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chiorooctane		90.2	100	90	70-135	
				1	1	1

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B All results are based on MDL and validated for QC purposes.



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### Form 2 - Surrogate Recoveries

Project Name: Monument Barber 10" Sour

ork Orders : 311100,	311100.004 / SMP Po	Project I	<b>D:</b> 2000-1065 iim Soil	5	
Lab balon #: 752491 Sample:	STITU0-0047 SMF Ba	RROGATE R	TX: SON	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes					
1-Chlorooctanc	79.4	100	79	70-135	
		50.0	07	/0-135	_
Lab Batch #: 732491 Sample:	311100-005 / SMP Ba	tch: 1 Mati	ix: Soil	STUDY	
		KROGATE K		Control	
TPH By SW8015 Mod Analytes	Amount Found [A]	Amount [B]	Recovery %R [D]	Limits %R	Flags
I-Chlorooctane	105	100	105	70-135	
o-Terphenyl	55.9	50.0	112	70-135	
Lab Batch #: 732491 Sample:	514699-1-BKS / BKS Ba	tch: ¹ Matr	ix: Solid		
Units: mg/kg	SU	<b>RROGATE</b> R	ECOVERY S	STUDY	
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane	84,1	100	84	70-135	
o-Terphenyl	47.5	50.0	95	70-135	
Lab Batch #: 732491 Sample:	514699-1-BLK / BLK Ba	tch: 1 Matr	ix: Solid		
Units: mg/kg	SU	<b>RROGATE</b> R	<b>ECOVERY</b>	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	84.6	100	85	70-135	_
o-Terphenyl	46.7	50.0	93	70-135	
Lab Batch #: 732491 Sample:	514699-1-BSD / BSD Ba	tch:   Matr	ix: Solid	<b></b>	
Units: mg/kg	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R {Dl	Control Limits %R	Flags
Analytes		100			
L-Chlorooctano	1 072				

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

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Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

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**BS / BSD Recoveries** 

Project Name: Monument Barber 10" Sour

Work Order #: 311100 Analyst: ASA Lab Batch ID: 732589

Date Prepared: 08/28/2008 Batch #: 1

Sample: 514764-1-BKS

**Project ID: 2000-10655** Date Analyzed: 08/28/2008

Matrix: Solid

Units: mg/kg			BLAN	K /BLANK S	PIKE / B	LANK S	PIKE DUPL	ICATE	RECOVE	RY STUD	Y	
BTEX by EP.	A 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes					[u]	[1]	[1] IINCAN	5				
Benzene		QN	0.1000	0.0952	95	0.1	0.1038	104	9	70-130	35	
Toluene		QN	0.1000	0.0916	92	0.1	0.0995	100	8	70-130	35	
Ethylbenzene		ND	0.1000	0.0932	93	0.1	0.1015	102	6	71-129	35	
m,p-Xylencs		QN	0.2000	0.1932	97	0.2	0.2107	105	9	70-135	35	
o-Xylene		ND	0.1000	0.0895	90	0.1	0.0977	98	6	71-133	35	
Analyst: IRO		Da	te Prepar	ed: 08/27/200	8			Date A	nalyzed: 0	8/28/2008		
Lab Batch ID: 732491	Sample: 514699-1-B)	KS	Batch	L#: 1					Matrix: S	solid		

Units: mg/kg		BLAN	K /BLANK S	PIKE / B	TANK S	PIKE DUPL	ICATE F	LECOVE	RY STUD	Y	
TPH By SW8015 Mod	Blank Samole Result	Spike Added	Blank Spike	Blank Spike	Spike Added	Blank Spike	Bik. Spk Dup.	RPD	Control Limits	Control Limits	Flag
	[¥]		Result	%R		Duplicate	%R	%	%R	%RPD	)
Analytes		[ <b>B</b> ]		[a]	[E]	Result [F]	[6]				
C6-C12 Gasoline Range Hydrocarbons	QN	1000	853	85	0001	870	87	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	QN	1000	890	68	1000	908	16	2	70-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F) Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes
Standard
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Form 3 - MS / MSD Recoveries

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**Project Name: Monument Barber 10" Sour** 

Work Order #: 311100

Lab Batch ID: 732589 Date Analyzed: 08/29/2008 Reporting Units: mg/kg

Project ID: 2000-10655

QC- Sample ID: 311229-001 S Date Prepared: 08/28/2008

1 Matrix: Soil

Batch #:

	RECOVERY STUDY
ASA	PIKE DUPLICATE
Analyst:	E / MATRIX S
/2008	MATRIX SPIK

BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]		%R [D]	Added [E]	Result [F]	(G) %R	%	%К	%RPD	)
Benzenc	QN	0.1062	0060.0	85	0.1062	8060.0	85	0	70-130	35	
Toluene	QN	0.1062	0.0870	82	0.1062	0.0862	81	-	70-130	35	
Ethylbenzene	QN	0.1062	0.0884	83	0.1062	0.0883	83	0	71-129	35	
m,p-Xylenes	QN	0.2125	0.1832	86	0.2125	0.1832	86	0	70-135	35	
o-Xylene	DN	0.1062	0.0846	80	0.1062	0.0843	79	1	71-133	35	
Lab Batch ID: 732491 Date Analyzed: 08/28/2008	)C- Sample ID: Date Prepared:	311100 08/27/2	-001 S 008	Bai Ani	tch #: alyst:	1 Matrix RO	: Soil				

Reporting Units: mg/kg		M	ATRIX SPIKE	(TAM)	HIAS XIX	KE DUPLICAT	E RECO	<b>VERY S</b>	TUDY		Γ
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	0
C6-C12 Gasoline Range Hydrocarbons	DN	1110	959	86	1110	696	87	_	70-135	35	
C12-C28 Dicsel Range Hydrocarbons	QN	1110	947	85	1110	992	89	s	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*((C-F)/(C+F)) ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

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# Sample Duplicate Recovery

## Project Name: Monument Barber 10" Sour

Work Order #: 311100

Lab Batch #: 732492 Date Analyzed: 08/27/2008 QC- Sample ID: 311127-001 D	Project ID:         2000-10655           Date Prepared:         08/27/2008         Analyst:         IRO           Batch #:         1         Matrix:         Soil
Reporting Units: %	SAMPLE / SAMPLE DUPLICATE RECOVERY
Percent Moisture	Parent SampleSampleControlResultDuplicateRPDLimits[A]Result%RPD
Analyte	
Percent Moisture	ND ND NC 20

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

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# Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

TAT bisbridg × × × × × Lone Star 🗌 NPDES ę ----- LYCL PRENE CHENNER E 300 Μ \$ 94 \$ \$ \$ \$ PreT 1485 Miled Aq3 HAq Project Name: Monument Barber 10" Sour Phone: 432-663-1500 Fax: 432-663-1713 M.A.O.N TRRP ž BCI 0929 X318 10 0 9/81 ZOS X318 Lettoratory Commenta: Sample Containen intact? VOCs Free of Headapace? Labets on container(s) Custody seals on container( Receipt SdD Custody seels on cooler() PO #: PAA - C. J. Bryant ALLIN Project Loc: Les County, NM Project #: 2000-10855 X Standard Femperature Upon Addates A. Ag the Col Ci Ph Hg So 030/d83/8WS 100 10) enam (H , WH , EMB , GOI SMORD Report Format 1811: 419.1 ( 1611: 17.1005 9001 XI S. -E E (HS109) 1'81+ i i i × 89108 × × × Soil Soil Soll Mistrix Bail 8/24/8 E a0pr45 - 15 ------1 Date (Apada ) serio cstanley@basinenv.com (HAR) BOOM 12600 West 1-20 Eget Odessa, Texas 79765 10'5'm manuation & d of Con-HORN *05⁴H OF X WON IOH (505) 396-1429 TONH × × - **e**0į × × × -obel #. of Con Ŧ ранары ріа Fax No: 9-Hail 1405 1410 1415 1420 <u>8</u> PAGE 01 OF 01 TO TO A PA ET OL 8/25/2008 8/25/2008 8/25/2008 8/25/2008 8/25/2008 Received by. Received by Baeln Environmental Service Technologies, LLC s enso ding Depth (00) Time Time digad poinnige Elector 1 Lovington, NM 88260 Date BILL TO PLAINS Company Address: 2800 Plains Hwy 1574) 441 204 Curt Stanley 7 Floor-4 @ 16' Floor-2 🙆 16' Floor-3 @ 16' Floor-5 @ 16' Floor-5 @ 16' FIELD CODE 31110 Sampler Signature: Project Manager: Company Name City/State/Zip: Telephone No: ecial Instructions: inquished by: dinquished by. (iab use only) ORDER #: 0 R 35 3 - 41) *a* **c**h ंड (Am

### Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

Client:	Basin Envi. P	lains
Date/ Time:	82608	18:00
Lab ID # :	311100	
Initiais:	al	

### Sample Receipt Checklist

				Client initials
#1	Temperature of container/ cooler?	(res)	No	3 .0
#2	Shipping container in good condition?	(es)	No	
#3	Custody Seals intact on shipping container/ cooler?	(es	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	(es)	No	Not Present
#5	Chain of Custody present?	tes	No	
#6	Sample instructions complete of Chain of Custody?	Kes !	No	
#7	Chain of Custody signed when relinquished/ received?	Ves	No	
#8	Chain of Custody agrees with sample label(s)?	(Yee)	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	Yes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	(res)	No	
#11	Containers supplied by ELOT?	Yes	No	
#12	Samples in proper container/ bottle?	(ES)	No	See Below
#13	Samples properly preserved?	(Yes)	No	See Below
#14	Sample bottles intact?	Yes	No	
#15	Preservations documented on Chain of Custody?	Yes	No	
#16	Containers documented on Chain of Custody?	(es)	No	
#17	Sufficient sample amount for indicated test(s)?	Yes.	No	See Below
#18	All samples received within sufficient hold time?	(es)	No	See Below
#19	Subcontract of sample(s)?	Yes	No	Not Applicable
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable

### Variance Documentation

Date/ Time:

Contact:

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Contacted by:

Regarding:

Corrective Action Taken:

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Check all that Apply:

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 See attached e-mail/ fax

 Client understands and with

 Cooling process had begut
 Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

Appendix B Photographs

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Looking North along North-South Excavation Toward Release Point



Looking North, Remediation Completed, Excavation Backfilled, Contoured and Seeded

# Appendix C Release Notification and Corrective Action (Form C-141)

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District II All South Fir District II 1000 Rio Bra District IV	n Dr., Hodok, NM 85 51. Artesia, NM 85 Dos Road, Aztec. 7	1210 NM 87410	~~~·		Qil Cons 2040 Santa	rvation I Fouth Pac Fe, NM 8	iral Resour Division Neco 7505	4e*	Subr Di	Revis nit 2 Cop strict Off with	For led Mar ics to s icc in a Rule I	nn C-141 ch 17, 1999 ppropriate scordance 6 on back
2040 South P.	schero, Santa Fo. )	NM 87505	Dalaa	no Nichie	Icotion	and Car					si	de of form
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Name of C	orapany	-			UFC	Contact			ual Re	on L	עיין ב	al Report
EOTT En	ergy Pipeline I	limited l	Parmera	bip		Glenn W	aldrop					
P.O. Box 1	660, Midland,	<b>TX</b> 797	702			915/684	e No. 3453					
Facility Na	me					Facility T	урс			·		
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Surface On	mer			Mi					LLOOP	210		
Barber Est	late								Lease	: NQ,		
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Unit Letter	Section To	wnship	Range	Feet from (	he North/	South Line	Feet from the	EastWee	a Linc	County		······
	3	173	3/12							LACI		
				NA	TURE O	FRELE	ASE					
Type of Rela	ase					Volume of	Release		Volum	c Recove	red	
Source of RA	lcase					L, out bits Date and f	lour of Occurre	ince	Date as	ad Hour o	Disco	ivery
Pipeline val Was Immedi	ve flange. late Notice Give	n7				August &	2000		Augus	18,2000	n 18 A	M
		" I	Yes 🗖	No 🔲 N	ot Required	Doma W	Illiams – NMO	CD, Hobbs I	District	Office		
By Whom?			Date and Hour									
Was a Water	course Reached		If YES, Volume Impacting the Watercourse.									
			Yes ind	No								
If a Waterco	urse was impact	ed, Desoni	be Fully,	5								
Describe Car Poly mold b	use of Problem a	nd Remo	tial Action	1 Taken.*	di was cont	ained in a h	at) hole and di	tch Relibaie	135'44	5'x10'de	m) fill	ed to top
and oil flow	ed into a ditch	100 yarda	Inng, Oi	I Was recove	red with a vi	icum truci						
Describe Ar	es Affected and	Cleanup A	ction Tak	en."				. Calls in th	ha halth	alo onuld	mot he	
excavated d	nacted soil, tron	nce of pipe	elines. E.	is excavated IGI has beg	and hauled in an deimestir	ig the site al	n for treatment	e s remediati	aa wor	ue coura Isplac		
)	-											
· / h	Mr. Anna La Car			is turn and a	amplate to th	a best of my	Imendedae and	Lunderstand t	hat mire	nent to N	MOCT	Dailes
and regulation	ons all operators	ate techni.	ed to repo	त कार्य जा विश्व	certain releas	e notificatio	ns and perform	corrective ac	tions fo	r reisases	which	may
of liability s	blic health or the hould their open	e covirona ations have	e failed to	acceptuace of adequately u	il a C-141 rep nvestigate an	ort by the N 1 remediate o	mocil marked	hat pose a thr	cat to g	ound wat	er, suf	e operator face
water, huma	n health or the e	nvironmet	nt. In addi	ition, NMOC	D acceptance regulations	of a C-141	report does not	relieve the op	crator o	of respons	ibility	for
	Tier out Onici II	)					OIL CON	SERVAT	ION I	DIVISI	<u>on</u>	
Signature:	Kunk	I.l.l	4-	<u></u>								
Printed Nam	e: Glenn Wald	lrop				Approved District St	by Ipervisor:				م معادل میں	
) Title: Distri	ct Manager	<u>.</u>				Approval	Date:		Expiratio	on Date:		
Pro cl	2/20	These A	1 8 16 9 1 7 1	()	4	Condition	s of Approval			An	ached	
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