State of New Mexico Energy Minerals and Natural Resources

> Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-141 Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

220 S. St. Francis Dr., Santa Fe, NM 87505 Santa	Fe, NM 87505	side of for				
Release Notificat	on and Corrective Action					
	OPERATOR Initial Re	port 🛛 🛛 Final Rep				
Name of Company Plains Marketing, LP	Contact Daniel Bryant					
Address 6 Desta Drive Ste. 6600 Midland, Tx 79705	Telephone No. (432) 557-5865					
Facility Name Scharb Station Over now						
Surface Owner Chris Northcutt Mineral Own	Lease No.					
LOCATI	DN OF RELEASE HPI 30	-025.12805				
Unit Letter Section Township Range Feet from the No	th/South Line Feet from the East/West Line Co	unty				
P 5 198 35E		i				
Latitude N 32 68700	20° Longitude W 103 47095000°					
	103.47093000					
NATUR	E OF RELEASE	1 2111				
Source of Release Tank at Scharb Truck Station	Date and Hour of Occurrence Date and Hour	of Discovery				
	08/09/2008 08/09/2008 @) 01:00				
Was Immediate Notice Given?	If YES, To Whom?					
By Whom? Daniel Bryant	Date and Hour 08/11/2008 @ 00-30					
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.					
🗌 Yes 🛛 No						
If a Watercourse was Impacted, Describe Fully.*		and the second second				
	·· • • • 74,	an own from the state of the				
		JÍ 27 2010				
Crude oil was released when the tank was overfilled by a transport un	ding at the facility.	DDJUU				
	с ,					
Describe Area Affected and Cleanup Action Taken.*						
Please see the attached Basin Environmental Service Technologies	Remediation Summary and Site Closure Request for	details of the remedial				
activities conducted at the site.						
I harshy apprice that the information given above is true and complete	the best of my knowledge and understand that pursuant	to NMOCD rules and				
regulations all operators are required to report and/or file certain relea	e notifications and perform corrective actions for releases	which may endanger				
public health or the environment. The acceptance of a C-141 report by	the NMOCD marked as "Final Report" does not relieve the contamination that nose a threat to ground water. Sur	the operator of liability				
or the environment. In addition, NMOCD acceptance of a C-141 repo	does not relieve the operator of responsibility for compl	iance with any other				
federal, state, or local laws and/or regulations.						
	OIL CONSERVATION DI	VISION				
Signature: 10		~				
Printed Name: Daniel Bryant	Approved by District EWEYNSONMENTAL ENG	INEER				
	10 77 10					
Title:Environmental-R/C-Specialist	Approval-Date:	**************************************				
E-mail Address: dmbryant@paalp.com	Conditions of Approval:	ttached				
Date: 10/1/11/12 Dhone: (422) 557 5865						
Attach Additional Sheets If Necessary		1RP-1936				
10,51021622132						
NUC- 10 10 5713-						

Basin Environmental Service Technologies, LLC

2800 Plains Highway P. O. Box 301 Lovington, New Mexico 88260 Office: (575) 396-2378 Fax: (575) 396-1429

ŵ **Effective Solutions**

REMEDIATION SUMMARY

AND SITE CLOSURE REQUEST

PLAINS MARKETING, L.P. (231735) Scharb Station Overflow Lea County, New Mexico Plains SRS # 2008-210 UNIT LTR "P" (SE ¼ /SE ¼), Section 5, Township 19 South, Range 35 East Latitude 32.68700000° North, Longitude 103.47095000° West NMOCD Reference # 1RP-1936

Prepared For:

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

RECEIVED Out 27 2010 Hossoucd

Prepared By: Basin Environmental Service Technologies, LLC 2800 Plains Highway Lovington, New Mexico 88260

October 2010

Project Manager

TABLE OF CONTENTS

1.0	INTRODUCTION AND BACKGROUND INFORMATION1									
2.0	NMOCD SITE CLASSIFICATION	.1								
3.0	SUMMARY OF SOIL ACTIVITIES	.2								
4.0	SUMMARY OF GROUNDWATER ACTIVITIES	.4								
5.0	QA/QC PROCEDURES.5.1Soil Sampling.5.2Groundwater Sampling.5.3Decontamination of Equipment.5.4Laboratory Protocol.	.4 .4 .5 .5								
6.0	SITE CLOSURE REQUEST	.5								
7.0	LIMITATIONS	.5								
8.0	DISTRUBUTION	.7								

FIGURES

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

TABLES

Table 1 – Concentrations of Benzene, BTEX and TPH in Soil Table 2– Concentrations of Benzene, BTEX, TPH, Chlorides and Total Dissolved Solids in Groundwater Table 3 – Groundwater Elevation Data

APPENDICES

Appendix A - Soil Boring and Monitor Well Logs

Appendix B - Analytical Reports

Appendix C – Photographs

Appendix D – Plugging Reports

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

1.0 INTRODUCTION AND BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Plains Marketing, L.P. (Plains), has prepared this Remediation Summary Site Closure Request for the release site known as Scharb Station Overflow (SRS # 2008-210). The legal description of the release site is Unit Letter "P" (SE ¹/₄ SE ¹/₄), Section 5, Township 19 South, Range 35 East, in Lea County, New Mexico. The landowner of the affected property is Mr. Chris Northcutt. The release site GPS coordinates are 32.68700000° North and 103.47095000° West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site and Sample Location Map. General photographs of the site are provided as Appendix C.

On August 9, 2008, Plains discovered a crude oil release had occurred at the Plains Scharb Station. A five hundred (500) barrel tank was overfilled by a transport truck unloading at the facility. The release was reported to the New Mexico Oil Conservation Division (NMOCD) on August 11, 2008. The release was contained inside the secondary containment at the facility. Approximately eighteen (18) barrels of crude oil was released with approximately three (3) barrels recovered. The Release Notification a Corrective Action Form is provided as Appendix E.

2.0 NMOCD SITE CLASSIFICATION

According to data obtained from the New Mexico Office of the State Engineer (NMOSE), depth to groundwater is estimated to be sixty-seven (67) feet below ground surface (bgs). Four (4) groundwater monitor wells (MW-1, MW-2, MW-3 and MW-4) were installed by Plains to evaluate the status of the underlying groundwater at the site. Groundwater was encountered at approximately thirty-five (35) to thirty-seven (37) feet bgs in the on-site monitor wells. The analytical results of the soil samples collected during the advancement of groundwater monitor well MW-4, indicated hydrocarbon impact exceeding the NMOCD regulatory standard, was present at approximately twenty (20) feet bgs. The depth of hydrocarbon impact results in a score of twenty (20) points being assigned to the site based on the 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 are no surface water bodies 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 Scharb Station Overflow release site has an initial ranking score of twenty (20). Based on this score, the soil remediation levels for a site with a ranking score of twenty (20) points are as follows:

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

3.0 SUMMARY OF SOIL ACTIVITIES

On August 11, 2008, excavation of the hydrocarbon impacted soil began at the site. Excavated soil was stockpiled on-site pending final disposition. Final dimensions of the excavation were approximately sixty (60) feet in length, approximately fifteen (15) feet in width and ranging in depth from approximately two (2) feet bgs to seventeen (17) feet bgs north to south and approximately fifty-five (55) feet in length, approximately fifteen (15) feet in width and ranging in depth from approximately five (5) feet bgs to seventeen (17) feet bgs east to west.

On August 12, 2008, one (1) soil sample (Floor @ 6') was collected from the floor of the excavation at approximately six (6) feet bgs. The soil sample was submitted to the laboratory for determination of concentrations of benzene, toluene, ethyl-benzene and xylene (BTEX) and total petroleum hydrocarbons (TPH) concentrations using EPA SW-846 8021b and SW-846 8015M, respectively. The analytical results indicated a benzene concentration of 16.94 mg/Kg, a BTEX concentration of 2,445.02 mg/Kg and a TPH concentration of 2,465 mg/Kg. Table 1 summarizes the Concentrations of Benzene, BTEX and TPH in Soil. Laboratory analytical reports are provided as Appendix B.

On March 9, 2010, four (4) groundwater monitor wells (MW-1, MW-2, MW-3 and MW-4) were installed at the Scharb Station Overflow release site. The groundwater monitor wells were installed to evaluate the status of the underlying groundwater. Soil boring logs are provided as Appendix A. Soil samples were collected at five (5) foot drilling intervals and field screened using a Photo-Ionization Detector (PID). Selected soil samples were submitted to the laboratory for determination of concentrations of BTEX and TPH.

Monitor well MW-1 was located north of the release point and was advanced to a total depth of approximately forty-five (45) feet bgs. Soil samples collected at five (5) feet, ten (10) feet, twenty-five (25) feet and thirty (30) feet bgs were submitted to the laboratory for analysis. The laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory method detection limit (MDL) in each of the submitted soil samples.

Monitor well MW-2 was located east of the release point and was advanced to a total depth of approximately forty-five (45) feet bgs. Soil samples collected at surface, five (5) feet, ten (10) feet, and thirty (30) feet bgs were submitted to the laboratory for analysis. The laboratory analytical results indicated benzene concentrations ranged from less than the appropriate laboratory method detection limit (MDL) for the soil samples collected at five (5) feet, ten (10) feet and thirty (30) feet bgs to 0.005 mg/Kg for the soil sample collected at surface. BTEX concentrations ranged from less than the appropriate laboratory MDL for the soil samples collected at ten (10) feet and thirty (30) feet bgs to 0.0553 mg/Kg for the soil sample collected at the surface. TPH concentrations ranged from less than the appropriate laboratory MDL for the soil samples collected at ten (10) feet and thirty (30) feet and thirty (30) feet bgs to 449 mg/Kg for the soil sample collected at the surface.

Monitor well MW-3 was located southeast of the release point and was advanced to a total depth of approximately forty-five (45) feet bgs. Soil samples collected at five (5) feet, ten (10) feet and thirty (30) feet bgs were submitted to the laboratory for analysis. The laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL for each submitted soil sample.

Monitor well MW-4 was advanced adjacent to the release point to a total depth of approximately forty-three (43) feet bgs. Soil samples collected at the surface, five (5) feet, ten (10) feet, fifteen (15) feet, twenty (20) feet, twenty-five (25) feet and thirty (30) feet bgs were submitted to the laboratory for analysis. The laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples, with the exception of the soil sample collected at the surface, which exhibited a concentration of 0.0024 mg/Kg. BTEX concentrations ranged from less than the appropriate laboratory MDL for the soil samples collected at ten (10) feet, fifteen (15) feet, twenty (20) feet, twenty-five (25) feet and thirty (30) feet bgs to 0.2045 mg/Kg for the soil sample collected at the surface. TPH concentrations ranged from less than the appropriate laboratory MDL for the soil sample collected at twenty-five (25) feet bgs to 9,590 mg/Kg for the soil sample collected at the surface.

On April 14, 2010, the NMOCD Hobbs District Office directed Plains to conduct limited excavation activities to remove impacted soils at the site. Since the release location occurred inside an active facility and analytical results indicated groundwater had not been impacted, it was agreed excavation activities would be limited in scope to the readily accessible impacted soils that could be safely removed without compromising the integrity of the active facility.

On May 14, 2010, seven (7) soil samples (NSW-1, ESW-1, NSW-2, ESW-2, SSW-1, WSW-2 and WSW-1) were collected from the sidewalls of the excavation. The soil samples were submitted to the laboratory for determination of concentrations of benzene, BTEX and TPH. Laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory MDL for all the submitted soil samples. BTEX concentrations ranged from less than the appropriate laboratory MDL for soil samples NSW-1, NSW-2, ESE-2 and WSW-2 to 52.29 mg/Kg for soil sample ESW-1. TPH concentrations ranged from less than the laboratory MDL for soil sample NSW-1 to 8,526 mg/Kg for soil sample ESW-1. Based on the analytical results further excavation was conducted in the areas of soil samples ESW-1 and WSW-1.

Three (3) soil samples (Floor-1, Floor-2 and Floor-3) were collected from the floor of the excavation, at depths ranging from two and half (2.5) feet bgs to four (4) feet bgs, and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene concentrations were less than the appropriate laboratory MDL for all the submitted soil samples. BTEX concentrations ranged from 0.004 mg/Kg for soil sample Floor-1 to 20.61 mg/Kg for soil sample Floor-3. TPH concentrations ranged from 71 mg/Kg for soil sample Floor-1 to 4,379 mg/Kg for soil sample Floor-3. Based on the analytical results further excavation was conducted in the areas of soil samples Floor-3.

On June 7, 2010, four (4) soil samples (WSW-1A, ESW-1A, Floor-2A and Floor-3A) were collected from the excavation and submitted to the laboratory for TPH analysis. Soil sample ESW-1A was also analyzed for BTEX concentrations. Laboratory analytical results indicated benzene and BTEX concentrations were less than the laboratory MDL for soil sample ESW-1A. TPH concentrations ranged from 90 mg/Kg for soil sample WSW-1A to 2,249 mg/Kg for soil sample Floor-2A. Based on the analytical results further excavation was conducted in the area of soil sample Floor-2A.

On June 21, 2010, one (1) soil sample (Floor-2B) was collected from the excavation and submitted to the laboratory for analysis. The laboratory analytical results indicated a TPH

concentration of 2,084 mg/Kg for the soil sample Floor-2B. Based on the analytical results further excavation was conducted in the area of soil sample Floor-2B.

On August 4, 2010, one (1) soil sample (Floor-2C) was collected from the excavation and submitted to the laboratory for analysis. The laboratory analytical results indicated a TPH concentration of 184 mg/Kg for soil sample Floor-2C.

During May and July 2010, approximately eight hundred thirty-four (834) cubic yards of impacted material was transported to the Plains Lea Station Landfarm (NMOCD Permit # GW-351), near Monument, New Mexico. The excavation was backfilled with locally purchased soil and compacted in twelve (12) inch lifts. Following backfilling activities the impacted area was contoured to fit the surrounding topography.

4.0 SUMMARY OF GROUNDWATER ACTIVITIES

On March 30, 2010, the on-site monitor wells (MW-1 through MW-4) were gauged and purged of a minimum of three (3) well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos Pump. Groundwater was allowed to recharge and samples were obtained using disposable Teflon bailers. Water samples were stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a trailer mounted polystyrene tank and disposed of at an approved disposal in Monument, New Mexico.

The analytical results of the March 30, 2010, groundwater sampling event indicate all BTEX constituent concentrations were less than the laboratory MDL in all four (4) on-site monitor wells. The analytical results indicate chloride concentrations ranged from 24.4 mg/L in monitor well MW-1 to 157 mg/L in monitor well MW-3. The results further indicate total dissolved solids (TDS) concentrations ranged from 476 mg/L in monitor well MW-1 to 802 mg/L in monitor well MW-3.

On April 14, 2010, the NMOCD Hobbs District Office granted verbal approval to plug and abandon the four (4) on-site monitor wells. On April 31, 2010, monitor wells MW-1, MW-2, MW-3 and MW-4 were plugged and abandoned by a State of New Mexico licensed water well driller. The plugging reports are provided as Appendix D.

5.0 QA/QC PROCEDURES

5.1 Soil Sampling

Soil samples were delivered to Xenco Laboratories, Inc. in Odessa, Texas for BTEX and/or TPH analyses using the methods described below. Soil samples were analyzed for BTEX and/or TPH within fourteen days following the collection date.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH-GRO/DRO concentrations in accordance with modified EPA Method 8015M Extended

5.2 Groundwater Sampling

The groundwater monitor wells were developed utilizing the Environmental Protection Agency (EPA) protocol of nine (9) well volumes of groundwater or until the monitoring wells are dry using an electrical Grundfos Pump. Within forty-eight hours of development and during subsequent quarterly groundwater sampling events, the monitor wells were measured and purged of approximately three (3) well volumes utilizing an electrical Grundfos Pump. Groundwater samples were collected using a disposable Teflon sampler and the groundwater samples were stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed of at an NMOCD approved disposal facility. Groundwater samples were delivered to Xenco Laboratories in Odessa, Texas, for analysis of BTEX concentrations using the method described below. All samples were analyzed within approved holding times following the collection date.

The groundwater samples are analyzed as follows:

• BTEX concentrations in accordance with EPA Method 8021B, 5030

5.3 Decontamination of Equipment

Cleaning of drilling equipment is the responsibility of the drilling company. In general, the cleaning procedures consist of using high-pressure steam to wash the drilling and sampling equipment prior to drilling and prior to starting each boring. Prior to use, the sampling equipment is cleaned with Liqui-Nox detergent and rinsed with distilled water.

5.4 Laboratory Protocol

The laboratory is responsible for proper QA/QC procedures after signing the chain-of-custody form. These procedures are either transmitted with the laboratory reports or are on file at the laboratory.

6.0 SITE CLOSURE REQUEST

Based on the remediation activities conducted at the site, Basin recommends Plains provide the NMOCD a copy of this Remediation Summary and Site Closure Request and request the NMOCD grant site closure to the Scharb Station Overflow release site.

7.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this Remediation Summary and Site 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.

8.0 **DISTRIBUTION:**

- Copy 1: Larry Johnson New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 1) 1625 French Drive Hobbs, New Mexico 88240
- Copy 2: Jeff Dann Plains Marketing, L.P. 333 Clay Street, Suite 1600 Houston, Texas 77002 jpdann@paalp.com
- Copy 3: Daniel Bryant Plains Marketing, L.P. P.O. Box 3119 Midland, Texas 79702 dmbryant@paalp.com
- Copy 4: Basin Environmental Service Technologies, LLC P.O. Box 381 Lovington, New Mexico 88260

Figures





Tables

,

. ¹

CONCENTRATIONS OF BENZENE, BTEX AND TPH IN SOIL

PLAINS MARKETING, L.P. SCHARB STATION OVERFLOW LEA COUNTY, NEW MEXICO SRS: 2008-210 NMOCD REFERENCE NO: 1RP-1936

	SAMDI E				M	ETHOD: EPA SV	V 846-8021B, 50.	30		MI	ETHOD: 8015	5M	TOTAL
SAMPLE LOCATION	SAMPLE	SAMPLE	SOIL		TOLUTINE	ETHYL-	M.P		TOTAL	GRO	DRO	ORO	ТРН
SAMPLE LOCATION	DEPTH (DCS)	DATE	STATUS	BENZENE	TOLUENE	BENZENE	XYLENES	O-XYLENE	BTEX	C6-C12	C ₁₂ -C ₂₈	C ₂₈ -C ₃₅	C6-C35
	(DGS)			(mg/Kg)	(mg/kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Floor @ 6'	6 Feet	08/12/08	In-Situ	16.94	123.100	73.88	1690	541.1	2,445.02	854	1,490	121	2,465
		· · · ·											
MW-1 @ 5'	5 Feet	03/09/10	In-Situ	<0.0010	<0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020	<17.5	<17.5	<17.5	<17.5
MW-1 @ 10'	10 Feet	3/9/2010	In-Situ	<0.0010	< 0.0020	< 0.0010	< 0.0020	<0.0010	< 0.0020	<17.2	<17.2	<17.2	<17.2
MW-1 @ 25'	25 Feet	3/9/2010	In-Situ	<0.0010	< 0.0020	< 0.0010	< 0.0020	<0.0010	<0.0020	<15.5	<15.5	<15.5	<15.5
MW-1 @ 30	30 Feet	3/9/2010	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	< 0.0020	<16.6	<16.6	<16.6	<16.6
MW-2 @ Surface	Surface	3/9/2010	In-Situ	0.005	0.0039	0.0157	0.0213	0.0094	0.0553	138	286	25	449
MW-2 @ 5	5 Feet	3/9/2010	In-Situ	< 0.0010	<0.0020	0.0047	0.0097	0.0083	0.0227	<16.6	37	<16.6	37
MW-2 @ 10'	10 Feet	3/9/2010	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<19.1	<19.1	<19.1	<19.1
MW-2 @ 30'	30 Feet	3/9/2010	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<18.1	<18.1	<18.1	<18.1
MW-3 @ 5'	5 Feet	3/9/2010	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<16.3	<16.3	<16.3	<16.3
MW-3 @ 10'	10 Feet	3/9/2010	In-Situ	<0.0010	<0.0020	< 0.0010	<0.0020	< 0.0010	<0.0020	<16.7	<16.7	<16.7	<16.7
MW-3 @ 30	30 Feet	3/9/2010	In-Situ	< 0.0010	<0.0020	< 0.0010	<0.0020	<0.0010	< 0.0020	<16.0	<16.0	<16.0	<16.0
MW-4 @ Surface	Surface	3/9/2010	In-Situ	0.0024	0.007	0.1343	0.0099	0.0509	0.2045	995	8,020	575	9,590
MW-4 @ 5'	5 Feet	3/9/2010	In-Situ	< 0.0010	<0.0020	0.017	<0.0020	0.0088	0.0258	114	561	33.1	708.1
MW-4 @ 10'	10 Feet	3/9/2010	In-Situ	<0.0010	< 0.0020	<0.0010	<0.0020	<0.0010	<0.0020	22.1	336	17.2	375.3
MW-4 @ 15'	15 Feet	3/9/2010	In-Situ	<0.0010	<0.0020	< 0.0010	<0.0020	<0.0010	<0.0020	<15.5	215	<15.5	215
MW-4 @ 20'	20 Feet	3/9/2010	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.9	131	<15.9	131
MW-4 @ 25'	25 Feet	3/9/2010	In-Situ	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.8	<15.8	<15.8	<15.8
MW-4 @ 30'	30 Feet	3/9/2010	In-Situ	<0.0010	< 0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<16.7	41.7	<16.7	41.7
		• •					<u>1</u>		· · · · · · · · · · · · · · · · · · ·		· · · ·		
NSW-1	2 Feet	5/14/2010	In-Situ	<0.0011	< 0.0022	<0.0011	< 0.0022	<0.0011	<0.0022	<16.7	<16.7	<16.7	<16.7
ESW-1	3 Feet	5/14/2010	Excavated	<0.5379	1.076	8.257	38.62	5.412	52.29	3,310	4,460	756	8,526
NSW-2	3.5 Feet	5/14/2010	In-Situ	<0.0012	<0.0025	< 0.0012	< 0.0025	<0.0012	<0.0025	<93.3	521.0	114	635.0
ESW-2	3 Feet	5/14/2010	In-Situ	<0.0011	< 0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	108.0	32	140.0
SSW-1	3 Feet	5/14/2010	In-Situ	<0.0012	< 0.0023	<0.0012	0.0037	<0.0012	0.0037	<17.5	34.4	<17.5	34.4
WSW-2	3.5 Feet	5/14/2010	In-Situ	<0.0011	<0.0023	<0.0011	< 0.0023	<0.0011	<0.0023	<16.9	241	46.6	287.6
WSW-1	2 Feet	5/14/2010	Excavated	<0.0110	0.1384	0.3897	4.723	1.265	6.516	602	1,230	72.1	1,904.1
Floor-1	2.5 Feet	5/14/2010	In-Situ	<0.0011	<0.0022	<0.0011	0.0025	0.0015	0.004	<16.8	71	<16.8	71
Floor-2	4 Feet	5/14/2010	Excavated	<0.0234	0.1633	2.132	9.211	2.216	13.722	848	725	<87.4	1,573
Floor -3	3.5 Feet	5/14/2010	Excavated	<0.5533	1.107	3.591	14.56	2.462	20.61	1,280	2,800	299	4,379
													1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
WSW-1A	2 Feet	6/7/2010	In-Situ	-	-	•	•	-	-	<15.9	90	<15.9	90
ESW-1A	3 Feet	6/7/2010	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0020	<15.6	767	93	860
Floor -2A	6 Feet	6/7/2010	Excavated	-	•	-	-	<u> </u>	-	561	1,580	108	2,249

Page 1 of 2

CONCENTRATIONS OF BENZENE, BTEX AND TPH IN SOIL

PLAINS MARKETING, L.P. SCHARB STATION OVERFLOW LEA COUNTY, NEW MEXICO SRS: 2008-210 NMOCD REFERENCE NO: 1RP-1936

	SAMDI F				M	ETHOD: EPA S	W 846-8021B, 50	30		M	ETHOD: 801	5M	TOTAL
SAMPLE LOCATION	DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M.P XYLENES (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	ТРН С ₆ -С ₃₅ (mg/Kg)
Floor -3A	5 Feet	6/7/2010	In-Situ	-	-	-	-	-	-	118	781	66	965
							·						
Floor -2B	10 Feet	6/21/2010	Excavated	-	-	-	-	-	-	385	1,600	99	2,084
			·					· · ·	•			: r''	· .
Floor- 2C	17 feet	8/4/2010	In-Situ	-	-	-	-	-	-	22	162	<16.5	184

CONCENTRATIONS OF BENZENE, BTEX, CHLORIDES AND TOTAL DISSOLVED SOLIDS IN GROUNDWATER

PLAINS MARKETING, L.P. SCHARB STATION OVERFLOW LEA COUNTY, NEW MEXICO PLAINS SRS NO. 2008-210 NMOCD REFERENCE NO: 1RP-1936

			MET	HODS: EPA	SW 846-80	21B, 5030			
SAMPLE LOCATION	SAMPLE DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL- BENZENE (mg/L)	M,P- XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL BTEX (mg/L)	CHLORIDES (mg/L)	TDS (mg/L)
MW-1	03/30/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	24.4	476
MW-2	03/30/10	<0.0010	<0.0020	<0.0010	<0.0020	< 0.0010	<0.0020	82.4	764
MW-3	03/30/10	<0.0010	<0.0020	<0.0010	<0.0020	< 0.0010	<0.0020	157	802
MW-4	03/30/10	<0.0010	<0.0020	<0.0010	<0.0020	< 0.0010	<0.0020	32.5	502
							· ·		
NMOCD CRITERIA	<u>م</u>	0.01	0.75	0.75	TOTAL XY	LENES 0.62	·	250	10,000

2010 GROUNDWATER ELEVATION DATA

PLAINSMARKETING, L.P. SCHARB STATION OVERFLOW LEA COUNTY, NEW MEXICO PLAINS SRS NO: NMOCD REF NO: 1RP

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	03/30/10			37.19	0.00	
MW-2	03/30/10		-	35.62	0.00	
					- -	
MW-3	03/30/10		-	35.75	0.00	
MW-4	03/30/10		-	35.11	0.00	
<u>}.</u>						

Ì

ł

.

Page 1 of 1

Appendices

Appendix A Soil Boring and Monitor Well Logs



 The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

Boring Log Details Monitor Well MW-1 Scharb Station Overflow Lea County, New Mexico Plains Marketing

Basin Environmental Service Technologies

Prep By: JWL	Checked By	: CJB
June 21, 2010		



		PID		Monit	or Well MW-3		
Drilling	Soil	Field	Petroleum	Petroleum	•		Monitor Well MW-3
Depth C	Columns	Screen	Odor	Stain	Soil Description		
<u> </u>		<u></u>	<u> </u>	<u></u>	0-3' - Sand with calisha	Date Thick	Drilled March 9, 2010
			Slight	Moderate	nodules, slightly moist	Dept	h of Exploratory Boring30 Ft bgs h to Groundwater30 Ft bgs
		39	Slight	Slight	3-13' - Caliche, tannish vellow, poorty sorted, dry	Grou	nd Water Elevation
10 		(16)	None	None		T T	Indicates the PSH level measured on
- 15 - -		13	None	None	13-25' - Sand, brown, very	0	Indicates the groundwater level measured on <u>March 9, 2010</u> Indicates samples selected for Laboratory Analysis,
- 20 - -		5.7	None	None	moist	PID	Head-space reading in ppm obtained with a photo-ionization detector.
- 25 		11.6	None	None		Ę	Grout Surface Seal
_ ▼		(13.2)	None	None	25–45' - Sand, light-brown,	0	Bentonite Pellet Seal
- 35 - -			None	None	very fine grained, moderate clay, damp	5	Sand Pack
- 40 			None	None			Scroon

Notes

1.) The soil boring was advanced on date using air rotary drilling techniques.

 The lines between material types shown on the prolile log represent approximate boundaries, Actual transitions may be gradual.

Boring Log Details Monitor Well MW-3 Scharb Station Overflow Lea County, New Mexico Plains Marketing

Basin Environmental Service Technologies

Prep By: JWL June 21, 2010 Checked By: CJB



Appendix B Analytical Reports

Analytical Report 310165

for

PLAINS ALL AMERICAN EH&S

Project Manager: Daniel Bryant

Scharb Station Overflow 2008-210

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: **Daniel Bryant PLAINS ALL AMERICAN EH&S** 1301 S. COUNTY ROAD 1150 Midland, TX 79706

Reference: XENCO Report No: **310165** Scharb Station Overflow Project Address: Lea County, NM

Daniel 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 310165. 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. 310165 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



Sample Cross Reference 310165



PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Station Overflow

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor @ 6 Feet bgs	S	Aug-12-08 14:30		310165-001



Project Id: 2008-210

Project Location: Lea County, NM

Contact: Daniel Bryant

Certificate of Analysis Summary 310165 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Scharb Station Overflow

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

Project Manager: Brent Barron, II

	Lab Id:	310165-001			
Analysis Paguastad	Field Id:	Floor @ 6 Feet bgs			
Analysis Requested	Depth:				
	Matrix:	SOIL			
	Sampled:	Aug-12-08 14:30			
BTEX by EPA 8021B	Extracted:	Aug-15-08 15:30			
	Analyzed:	Aug-16-08 01:40			
	Units/RL:	mg/kg RL			
Benzene		16.94 2.871			
Toluene		123.1 5.743			
Ethylbenzene		73.88 2.871			
m,p-Xylenes		1690 5.743			
o-Xylene		541.1 2.871			
Total Xylenes		2231.1			
Total BTEX		2445.02			
Percent Moisture	Extracted:				
	Analyzed:	Aug-15-08 17:00			
	Units/RL:	% R L			
Percent Moisture		12.9			
TPH By SW8015 Mod	Extracted:	Aug-15-08 16:45			
	Analyzed:	Aug-16-08 20:08			
	Units/RL:	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		854 17.2			
C12-C28 Diesel Range Hydrocarbons		1490 17.2			
C28-C35 Oil Range Hydrocarbons		121 17.2			
Total TPH		2465			

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 judgment of XENCO Laboratories. XENCO Laboratories assumes no 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.

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

Brent Barron Odessa Laboratory Director



- 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Phone	Fax
(281) 589-0692	(281) 589-0695
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477
	(281) 589-0692 (214) 902 0300 (210) 509-3334 (813) 620-2000 (305) 823-8500 (770) 449-8800



Form 2 - Surrogate Recoveries



Project Name: Scharb Station Overflow

Vork Order #: 310165		Project I	D: 2008-210		
Lab Batch #: 731303 Sample: 310165-001 /	SMP Ba	tch: 1 Matr	ix: Soil	TUDV	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0542	0.0300	181	80-120	**
4-Bromofluorobenzene	0.0962	0.0300	321	80-120	**
Lab Batch #: 731303 Sample: 310166-001 S Units: mg/kg	S/MS Ba	tch: ¹ Matr RROGATE RI	ix: Soil	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobcnzene	0.0318	0.0300	106	80-120	
Lab Batch #: 731303 Sample: 310166-001 S Units: mg/kg	SD / MSD Ba	tch: ¹ Matr RROGATE RI	ix: Soil ECOVERY S	STUDY	
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	
Lab Batch #: 731303 Sample: 514022-1-BK	S/BKS Ba	tch: 1 Matr	ix: Solid	<u></u>	
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	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	
Lab Batch #: 731303 Sample: 514022-1-BL	K/BLK Ba	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	0.0350	0.0300	117	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

** 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.



Form 2 - Surrogate Recoveries



Project Name: Scharb Station Overflow

/ork Order #: 310165		Project I	D: 2008-210				
Lab Batch #: 731303 Sample: 51402	2-1-BSD / BSD Ba	tch: l 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							
I,4-Difluorobenzene	0.0290	0.0300	97	80-120			
4-Bromotluorobenzene	0.0271	0.0300	90	80-120			
Lab Batch #: 731290 Sample: 31016	5-001 / SMP Ba	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	91.8	100	92	70-135			
o-Terphenyl	52.2	50.0	104	70-135			
Lab Batch #: 731290 Sample: 31016	7-003 S / MS Ba	tch: 1 Matr	ix: Soil	I			
Units: mg/kg	SU	RROGATE R	ECOVERY S	STUDY			
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	78.4	100	78	70-135			
o-Terphenyl	47.6	50.0	95	70-135			
Lab Batch #: 731290 Sample: 31016	7-003 SD / MSD Ba	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-Chlorooctanc	81.0	100	81	• 70-135			
o-Terphenyl	48.3	50.0	97	70-135			
Lab Batch #: 731290 Sample: 51401'	7-1-BKS/BKS Ba	tch: 1 Matr	ix: Solid	I			
Units: mg/kg	SU	SURROGATE RECOVERY STUDY					
		Turn	1	Control			
TPH By SW8015 Mod	Amount Found [A]	Amount [B]	Recovery %R [D]	Limits %R	Flags		
TPH By SW8015 Mod Analytes 1-Chlorooctanc	Amount Found [A] 80.4	Amount [B]	Recovery %R [D] 80	Limits %R 70-135	Flags		

** 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.



Form 2 - Surrogate Recoveries



Project Name: Scharb Station Overflow

Work Order #: 310165	Project ID: 2008-210						
Lab Batch #: 731290 Sample: 514017-1-BI	mple: 514017-1-BLK / BLK Batch: 1 Matrix: Solid						
Units: mg/kg	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
I-Chlorooctane	82.7	100	83	70-135			
o-Terphenyl	46.4	50.0	93	70-135			
Lab Batch #: 731290 Sample: 514017-1-BS	SD / BSD Bat	tch: 1 Matr	ix: Solid				
Units: mg/kg	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
Analytes							
1-Chlorooctane	79.5	100	80	70-135			
o-Tcrphcnyl	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.





Project Name: Scharb Station Overflow

Work Order #: 310165	Project ID: 2008-210 Data Propard: 08/15/2008										
Lab Batch ID: 731303 Sample: 514022-1-1	BKS Batch #: 1				Matrix: Solid						
Units: mg/kg	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY					Ŷ					
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]		լոյ	[E]	Result [F]	[G]				
Benzene	ND	0.1000	0.1124	112	0.1	0.0997	100	12	70-130	35	
Toluene	ND	0.1000	0.1126	113	0.1	0.0991	99	13	70-130	35	
Ethylbenzene	ND	0.1000	0.1200	120	0.1	0.1084	108	10	71-129	35	
m,p-Xylenes	ND	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 Prepar	ed: 08/15/200	8			Date A	nalyzed: (8/16/2008		
Lab Batch ID: 731290 Sample: 514017-1-H	BKS	Batel	h #: 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K/BLANK S	PIKE / B	LANK S	PIKE DUPI	ICATE	RECOVE	ERY STUD	Y	
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Bik. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	844	84	1000	835	84	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	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



Project Name: Scharb Station Overflow



Work Order # 310165						Project II): 2008-2	10			
Lab Batch ID: 731303 Date Analyzed: 08/16/2008	QC- Sample ID: Date Prepared:	310166- 08/15/24	-001 S 008	Ba An	tch #: alyst:	l Matri: ASA	: Soil				
Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
BTEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result ICI	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Controi Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
Benzene	ND	0.1062	0.0828	78	0.1062	0.0873	82	5	70-130	35	
Toluene	ND	0.1062	0.0810	76	0.1062	0.0844	79	4	70-130	35	
Ethylbenzene	ND	0.1062	0.0855	81	0.1062	0.0905	85	5	71-129	35	
m,p-Xylenes	ND	0.2124	0.1768	83	0.2124	0.1863	88	6	70-135	35	
o-Xylene	ND	0.1062	0.0781	74	0.1062	0.0832	78	5	71-133	35	
Lab Batch ID: 731290	QC- Sample ID: Date Prepared:	310167-	-003 S	Ba	tch #: alvst:	1 Matrix	k: Soil				
Date Analyzed: 00/1//2008	Date Trepared.										
Keporting Onits. mg/kg		M	ATRIX SPIKE	I / MATI	RIX SPI	KE DUPLICA	TE RECO	JVERY	STUDY		
TPH By SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result ICI	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result IFI	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	L	[D]	[E]		[G]				
C6-C12 Gasoline Range Hydrocarbons	ND	1160	915	79	1160	960	83	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1160	906	78	1160	954	82	5	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





Project Name: Scharb Station Overflow

Work Order # 310165

Lab Batch #: 731187			Project I	D: 2008-210)
Date Analyzed: 08/15/2008 Date	Prepared: 08/1	5/2008	Analy	st: JLG	
QC- Sample ID: 310167-001 D	Batch #: 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]			
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.
Env	ronment	tal Lab of	Texa	S						СНА	IN OF	cus	TODY	REĆ	ORI) AN	ID A	NAL	Y\$IS	s RE	QUE	est				
								1260 Ode	30 Wes ssa, T	st I-20 exas 7	East 79765							Pho Faz	กe: - x;	432- 432-	563- 563-	1800 1713				
	Project Manager:	Curt Stanley			PAGE 01 C	0F 01							_ F	Proje	st Na	me: _	Schi	arb S	itati	on C)ver	flow				-
	Company Name	Basin Environmental	Service Te	chnol	ogles, LLC								-	P	rojec	t #: _	2008	1-210								_
	Company Address:	2800 Plains Hwy											-	Proj	ect L	oc: 1	Lea C	County	<u>y, NM</u>	A						_
i	City/State/Zip:	Lovington, NM 88260											-		PC) #: <u>F</u>	PAA	- D.M.	Вгу	ant						_
	Telephone No:	(575) 441-2244				Fax No	: (5	05) 39	6-1429				Repo	ort F4	ermad	. [×s	tandai	rđ	(4T 🗋	RP	[DES	
	Sampler Signature	Cut De	slig	Qu	~	e-mail	<u> </u>	stanl	ey@l	asir	ienv.	com		_												
(lab use o	nly)		\mathcal{T}	E	SobryE	Inh	o_ 1	 ,									TCL		uaiyzi	a For	<u> </u>	П	Т			
ORDER	<u>*: 310</u>	165			· · · ·			Pres	ervatio	n 8 į (of Conta	iners	Matrix	3		T	TOTA	3	H		20				а Г	_
]]					11		- studig Soiltso	R CR	1008		ity)	Ph Hd			TEX 82				14e) 24	
e orly			bth		g	7	sau						ator SI ater 5-	B015N	Ē	X a, K	. Alkalı	1080					1	ā 8	e-9ct-	
4			Q 5ui	Dept	ample	Sample	1 Conta		(Z X W			Specify	W Duting W	Fotam	× 100	ň Č	CI, SQ4	15 Ag B		ables	218150			ee E	TAT	LAT M
AB¢	EIE	D CODE	nnige	polbo	Date 0	Time	eld Fale Dial #. 0	5	to (VC	i sol	O.S.ev	Differ (- 10 - 10	L NON	ЪH, Т	at must	0 suoin	fetals: J	olatiles	ioning.	Į	N.H.O.	HA	Chlorid	LISU SU	choost.
OI	Floor	2) 6 feet bgs		<u>– w</u>	8/12/2008	1430	1	x				1	Soil	X		0	4 5	<u>, </u>			X	Ē		Ť	Ħ	2
													ļ	Ţ				\square	H	\square	_	\square	\square		\Box	_
								+-+			╆┽	+	<u> </u>	╋	+		-+-	┽┥	┝╌╉	+	-+-	┢┥		╉	+	-
											+		l	\dagger	\Box					\pm	\pm	+		\pm		
											\square			Ţ				\square	\square		\mp	\square			\square	-
							+ +	╉┽		-+-	╉╌┾	+-	┨	┿			+	+	\vdash	+	╉	┼╂	+	+	┢╋	
											+								1		+		-			
								Π					I	Γ				Ũ	\Box	\Box		Ш				-
opecial in	ISTRICTIONS:															Sam	ple C	iontair	nume hers (intaci	‡?		Ę	R	N	
Responsible	ed by	Pate	1	тю	Received by:							0.	ate	₹ ₆ 1	T#	Labe	is rife dis on ody s	iconta iconta seals /	iead: iinen on cc	space (s) Intain	er ner(s)		ġ	3	N	
Relinquishe	ed by.		10/16:	4 me	Received by:							Da	ale -	Tin	ne .	Cust Sam	iody s iple H	ieals o land D	л со Jelive	olar(s ared	5)		پَر لا	2	Ø _z	
Relinquish	ed by	مادا	Т	me	Received by EL	AT-						0.	Na	Ter	19	5	oy Sar oy Coy	mpler/k prier?	Client	UPS	." ⊂	-01	FedE	x Lon	N ne Sta	r
					and	ua Le	m				8	3.14	.08	<u>u:</u>	45	Tem	perat	ure Ú	pon l	Recei	ipi:	Ę	<u>j. 5</u>	2	·c	
									-																	

Environmental Lab of Te

.

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client;	Basin Enu.	Plains
Date/ Time:	8.14.08 16	45
Lab ID # 1	310165	
Initials	OIL .	<u> </u>

Sample Receipt Checklist

Client Initials

Date/ Time:

#1	Temperature of container/ cooler?	Yes	No	5.5 '0
#2	Shipping container in good condition?	(es)	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?	(es)	No	
#8	Chain of Custody agrees with sample label(s)?	res	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?	(es)	No	
#12	Samples in proper container/ bottle?	(es)	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?	(es)	No	
#17	Sufficient sample amount for indicated test(s)?	(res)	No	See Below
#18	All samples received within sufficient hold time?	Yes)	No	See Balow
#19	Subcontract of sample(s)?	Yes	No	Not Applicable
#20	VOC samples have zero headspace?	Yes	No	Not Applicable

Variance Documentation

Contacted by:

Contact:

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 365219

for

PLAINS ALL AMERICAN EH&S

Project Manager: Daniel Bryant

Scharb Station Overflow

2008-210

17-MAR-10





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295)





17-MAR-10

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

Reference: XENCO Report No: 365219 Scharb Station Overflow Project Address: Lea County, NM

Daniel 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 365219. 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. 365219 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America





Sample Cross Reference 365219

PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Station Overflow

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-3 @ 5'	S	Mar-09-10 09:00		365219-001
MW-3 @ 10'	S	Mar-09-10 09:10		365219-002
MW-3 @ 30'	S	Mar-09-10 09:25		365219-003
MW-2 @ Surface	S	Mar-09-10 10:40		365219-004
MW-2 @ 5'	S	Mar-09-10 10:50		365219-005
MW-2 @ 10'	S	Mar-09-10 11:00		365219-006
MW-2 @ 30'	S	Mar-09-10 11:40		365219-007
MW-1 @ 5'	S	Mar-09-10 13:00		365219-008
MW-1 @ 10'	S	Mar-09-10 13:10		365219-009
MW-1 @ 25'	S	Mar-09-10 13:45		365219-010
MW-1 @ 30'	S	Mar-09-10 14:00		365219-011
MW-4 Surface	S	Mar-09-10 15:30		365219-012
MW-4 @ 5'	S	Mar-09-10 15:40		365219-013
MW-4 @ 10'	S	Mar-09-10 15:50		365219-014
MW-4 @ 15'	S	Mar-09-10 16:10		365219-015
MW-4 @ 20'	S	Mar-09-10 16:30		365219-016
MW-4 @ 25'	S	Mar-09-10 16:50		365219-017
MW-4 @ 30'	S	Mar-09-10 17:10		365219-018



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Scharb Station Overflow



 Project ID:
 2008-210

 Work Order Number:
 365219

Report Date: 17-MAR-10 Date Received: 03/11/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-798145 TPH by SW8015 Mod None

Batch: LBA-798281 BTEX by EPA 8021 SW8021BM

Batch 798281, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 365219-004,365219-012,365219-013,365219-005.

Batch: LBA-798453 Percent Moisture None



Project Location: Lea County, NM

Contact: Daniel Bryant

Certificate of Analysis Summary 365219

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Scharb Station Overflow



Date Received in Lab: Thu Mar-11-10 07:40 am

Report Date: 17-MAR-10

								Project Ma	nager:	Brent Barron,	, II		
	Lab Id:	365219-0	001	365219-0	02	365219-	003	365219-0	004	365219-0	005	365219-	006
Analysis Paguastad	Field Id:	MW-3 @) 5'	MW-3 @	10'	MW-3 @	i) 30'	MW-2 @ S	urface	MW-2 @	i), 5'	MW-2 @) 10'
Anuiysis Kequesieu	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	,	SOIL	
	Sampled:	Mar-09-10	09:00	Mar-09-10	09:10	Mar-09-10	09:25	Mar-09-10	10:40	Mar-09-10	10:50	Mar-09-10	11:00
BTEX by EPA 8021	Extracted:	Mar-13-10	07:00	Mar-13-10	07:00	Mar-13-10	07:00	Mar-13-10	07:00	Mar-13-10	07:00	Mar-13-10	07:00
	Analyzed:	Mar-13-10	09:28	Mar-13-10	09:50	Mar-13-10	10:13	Mar-13-10	10:35	Mar-13-10	10:57	Mar-13-10	11:20
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0010	ND	0.0010	0.0050	0.0010	ND	0.0010	ND	0.0010
Toluene		ND	0.0020	ND	0.0020	ND	0.0020	0.0039	0.0020	ND	0.0020	ND	0.0020
Ethylbenzene		ND	0.0010	ND	0.0010	ND	0.0010	0.0157	0.0010	0.0047	0.0010	ND	0.0010
m,p-Xylenes		ND	0.0020	ND	0.0020	ND	0.0020	0.0213	0.0020	0.0097	0.0020	ND	0.0020
o-Xylene		ND	0.0010	ND	0.0010	ND	0.0010	0.0094	0.0010	0.0083	0.0010	ND	0.0010
Xylenes, Total		ND	0.0010	ND	0.0010	ND	0.0010	0.0307	0.0010	0.0180	0.0010	ND	0.0010
Total BTEX		ND	0.0010	ND	0.0010	ND	0.0010	0.0553	0.0010	0.0227	0.0010	ND	0.0010
Percent Moisture	Extracted:												
	Analyzed:	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL_
Percent Moisture		8.30	1.00	10.7	1.00	6.22	1.00	15.2	1.00	9.64	1.00	21.7	1.00
TPH by SW8015 Mod	Extracted:	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00
	Analyzed:	Mar-15-10	17:51	Mar-15-10	18:18	Mar-15-10	18:45	Mar-15-10	19:11	Mar-15-10	19:38	Mar-15-10	20:04
	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	16.3	ND	16.7	ND	16.0	138	17.7	ND	16.6	ND	19.1
C12-C28 Diesel Range Hydrocarbons		ND	16.3	ND	16.7	ND	16.0	286	17.7	37.0	16.6	ND	19.1
C28-C35 Oil Range Hydrocarbons		ND	16.3	ND	16.7	ND	16.0	25.4	17.7	ND	16.6	ND	19.1
Total TPH		ND	16.3	ND	16,7	ND	16.0	449	17.7	37.0	16.6	ND	19.1

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 judgment of XENCO Laboratories. XENCO Laboratories assumes no 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.

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

Brent Barron, II

Odessa Laboratory Manager

Page 5 of 24

Final Ver. 1.000

Project Location: Lea County, NM

Contact: Daniel Bryant

Certificate of Analysis Summary 365219

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Scharb Station Overflow



Date Received in Lab: Thu Mar-11-10 07:40 am

Report Date: 17-MAR-10

· · · · · · · · · · · · · · · · · · ·								Project Ma	nager:	Brent Barron,	, II		
	Lab Id:	365219-0	07	365219-0	008	365219-	009	365219-	010	365219-0	011	365219-0	012
Analysis Requested	Field Id:	MW-2 @	30'	MW-1@) 5'	MW-1 @	£) 10'	MW-1 @	25'	MW-1@	30'	MW-4 Su	rface
Analysis Kequesieu	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL	,	SOIL		SOIL	
	Sampled:	Mar-09-10	11:40	Mar-09-10	13:00	Mar-09-10	13:10	Mar-09-10	13:45	Mar-09-10	14:00	Mar-09-10	15:30
BTEX by EPA 8021	Extracted:	Mar-13-10	07:00	Mar-13-10	07:00	Mar-13-10	07:00	Mar-13-10	07:00	Mar-13-10	07:00	Mar-13-10	07:00
	Analyzed:	Mar-13-10	11:42	Mar-13-10	12:04	Mar-13-10	12:27	Mar-13-10	12:50	Mar-13-10	14:20	Mar-13-10	16:57
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL.
Benzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.0024	0.0010
Toluene		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	0.0070	0.0020
Ethylbenzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.1343	0.0010
m,p-Xylenes		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	0.0099	0.0020
o-Xylene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.0509	0.0010
Xylenes, Total		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.0608	0.0010
Total BTEX		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.2045	0.0010
Percent Moisture	Extracted:												
	Analyzed:	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		16.9	1.00	14.6	1.00	13.2	1.00	3.82	1.00	10.0	1.00	6.61	1.00
TPH by SW8015 Mod	Extracted:	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00
	Analyzed:	Mar-15-10	20:31	Mar-15-102	20:58	Mar-15-10	21:51	Mar-15-10	22:18	Mar-15-10	22:44	Mar-16-10	23:11
	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	18.1	ND	17.5	ND	17.2	ND	15.5	ND	16.6	995	161
C12-C28 Diesel Range Hydrocarbons		ND	18.1	ND	17.5	ND	17.2	ND	15.5	ND	16.6	8020	161
C28-C35 Oil Range Hydrocarbons		ND	18.1	ND	17.5	ND	17.2	ND	15.5	ND	16.6	575	161
Total TPH		ND	18.1	ND	17.5	ND	17.2	ND	15.5	ND	16.6	9590	161

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 judgment of XENCO Laboratories. XENCO Laboratorics assumes no 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.

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

Brent Barron, II

Odessa Laboratory Manager

Final Ver. 1.000



Project Location: Lea County, NM

Contact: Daniel Bryant

Certificate of Analysis Summary 365219 PLAINS ALL AMERICAN EHES Midland TX

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Scharb Station Overflow



Date Received in Lab: Thu Mar-11-10 07:40 am

Report Date: 17-MAR-10 Project Manager: Brent Barron, II

										· · · · · · · · · · · · · · · · · · ·			
	Lab Id:	365219-0	013	365219-0	14	365219-0)15	365219-0	16	365219-0	017	365219-0	018
Analysis Paguastad	Field Id:	MW-4 @	5'	MW-4 @	10'	MW-4 @	15'	MW-4 @	20'	MW-4 @	25'	MW-4 @	30'
Analysis Kequesieu	Depth:												
	Matrix:	SOIL		SOIL	1	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-09-10	15:40	Mar-09-10	15:50	Mar-09-10	16:10	Mar-09-10	16:30	Mar-09-10	16:50	Mar-09-10	17:10
BTEX by EPA 8021	Extracted:	Mar-13-10	07:00	Mar-13-10 (07:00	Mar-13-10	07:00	Mar-13-10	07:00	Mar-13-10	07:00	Mar-13-10	07:00
	Analyzed:	Mar-13-10	14:42	Mar-13-10	15:05	Mar-13-10	16:34	Mar-13-10	15:27	Mar-13-10	15:49	Mar-13-10	16:12
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
Toluene		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020
Ethylbenzene		0.0170	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
m,p-Xylenes		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020
o-Xylene		0.0088	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
Xylenes, Total		0.0088	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
Total BTEX		0.0258	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
Percent Moisture	Extracted:												
	Analyzed:	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16	Mar-16-10	15:16
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		9.56	1.00	7.03	1.00	3.70	1.00	5.35	1.00	5.44	1.00	10.1	1.00
TPH by SW8015 Mod	Extracted:	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00	Mar-15-10	15:00
	Analyzed:	Mar-16-10	23:37	Mar-16-10	00:04	Mar-16-10	00:30	Mar-16-10	00:57	Mar-16-10	01:24	Mar-16-10	01:51
	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		114	16.5	22.1	16.1	ND	15.5	ND	15.9	ND	15.8	ND	16.7
C12-C28 Diesel Range Hydrocarbons		561	16.5	336	16.1	215	15.5	131	15.9	ND	15.8	41.7	16.7
C28-C35 Oil Range Hydrocarbons		33.1	16.5	17.2	16.1	ND	15.5	ND	15.9	ND	15.8	ND	16.7
Total TPH		708	16.5	375	16.1	215	15.5	131	15.9	ND	15.8	41.7	16.7

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 judgment of XENCO Laboratories. XENCO Laboratories assumes no 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.

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

Brent Barron, II

Odessa Laboratory Manager

Page 7 of 24

Final Ver. 1.000

XENCO Laboratorics



- 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 and above the SQL.
- 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.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL Below Reporting Limit.
- RL Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Corpus Christi - Midland/Odessa - Tampa - Miami - Latin America

	Phone	Fax
4143 Greenbriar Dr. Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North 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
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Project Name: Scharb Station Overflow

Work Orders : 365219), Sample: 558179-1-BKS/F	3KS Bate	Project II	D: 2008-210 Solid		
Units: mg/kg	Date Analyzed: 03/13/10 07:34	SU SU	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4-Difluorobenzene		0.0276	0.0300	92	80-120	
4-Bromofluorobenzene		0.0306	0.0300	102	80-120	
Lah Batch #: 798281	Sample: 558179-1-BSD / P	I BSD Bate	h· 1 Matrix	ı • Solid	1	
Units: mg/kg	Date Analyzed: 03/13/10 07:56	SU SU	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4-Difluorobenzene		0.0263	0.0300	88	80-120	
4-Bromofluorobenzene		0.0297	0.0300	99	80-120	
Lah Ratah #. 798281	Sample: 558179-1-BLK / F	NK Bate	L. 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 03/13/10 09:05	SU SU	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene		0.0248	0.0300	83	80-120	<u> </u>
4-Bromofluorobenzene		0.0312	0.0300	104	80-120	
Lab Batch #: 798281	Sample: 365219-001 / SMF	Bate	h: 1 Matrix:	: Soil	L	
Units: mg/kg	Date Analyzed: 03/13/10 09:28	SU	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
L 4 Diffuerationromo	Апагуцея	0.0246	0.0200	15-1 02	00.120	
A Bromefluerohenzene	en engelegelege al	0.0246	0.0300	82	80-120	
4-Bromoriuorovenzene	265210.002/SMI	0.0309	0.0300	103	80-120	
Lab Batch #: /98281	Sample: 303219-0027 Sivin	Batel	h: Matrix:	Soil	TUDV	
Units: mg/Kg	Date Analyzed: 03/13/10 09:50	50				
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0243	0.0300	81	80-120	
4-Bromofluorobenzene		0.0300	0.0300	100	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Scharb Station Overflow

Vork Orders : 365219	', Samala: 365219-003 / SMP	Bate	Project IF): 2008-210		
Units: mg/kg	Date Analyzed: 03/13/10 10:13	SU	RROGATE RF	ECOVERY !	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4-Difluorohenzene		0.0248	0.0300	83	80-120	i
4-Bromofluorobenzene		0.0240	0.0300	107	80-120	ī
Lab Ratch #. 798281	Sample: 365219-004 / SMP	Batel		· Soil		,
Units: mg/kg	Date Analyzed: 03/13/10 10:35	SU	RROGATE RF	ECOVERY !	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4 Difluorobenzene	Analytes	0.0201	0.0200	67	°0 120	⊢
4-Bromofluorobenzene		0.0201	0.0300	108	80-120	
· · · · · · · · · · · · · · · · · · ·	L	Bate!	- 1 Matrix	0~i1		
Units: mg/kg	Date Analyzed: 03/13/10 10:57	SU	RROGATE RF	ECOVERY !	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene		0.0226	0.0300	75	80-120	*
4-Bromofluorobenzene		0.0358	0.0300	119	80-120	í
Lah Batch #: 798281	Sample: 365219-006 / SMP	Batc!	h· 1 Matrix	• Soil		
Units: mg/kg	Date Analyzed: 03/13/10 11:20	SU!	RROGATE RF	ECOVERY S	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene		0.0246	0.0300	82	80-120	(
4-Bromofluorobenzenc		0.0323	0.0300	108	80-120	l
Lab Batch #: 798281	Sample: 365219-007 / SMP	Batel	h: 1 Matrix:	: Soil	<u></u>	<u></u>
Units: mg/kg	Date Analyzed: 03/13/10 11:42	SUI	RROGATE RF	ECOVERY S	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0241	0.0300	80	80-120	
4-Bromofluorobenzene		0.0298	0.0300	99	80-120	i

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Scharb Station Overflow

Vork Orders : 365219), Samula, 365219-008 / SMP	Pote	Project II): 2008-210						
Lab Dattin #: 790201	Date Analyzed: 03/13/10 12:04	SU	RROGATE RI	ECOVERY S	STUDY					
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1.4 Difluorobenzene	Analytes	0.0240	0.0300	<u> </u>	90.120					
4-Bromofluorobenzene		0.0240	0.0300	100	80-120					
		Pata	- 1 Motrivi	0.41						
Lab Batch #: 79201 Units: mg/kg	Date Analyzed: 03/13/10 12:27	Balci SU	RROGATE RE	COVERY S	STUDY					
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1.4-Difluorobenzene		0.0247	0.0300	82	80-120					
4-Bromofluorobenzene		0.0324	0.0300	108	80-120					
Lab Batch #: 798281	Sample: 365219-010 / SMP	Bate	h: 1 Matrix:	: Soil	لـــــ					
Units: mg/kg	Date Analyzed: 03/13/10 12:50	SU	RROGATE RF	Soil COVERY STUDY						
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluorobenzene		0.0242	0.0300	81	80-120					
4-Bromofluorobenzene		0.0310	0.0300	103	80-120					
Lab Batch #: 798281	Sample: 365219-011 / SMP	Batel	h: 1 Matrix:	: Soil	<u>. </u>					
Units: mg/kg	Date Analyzed: 03/13/10 14:20	SU	RROGATE RE	COVERY S	STUDY					
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1.4 Diffuerobenzone	Апануисъ	0.0245	0.0200	01	80.120					
4-Bromofluorobenzene		0.0245	0.0300	82 103	80-120					
Lah Ratch #• 79828]	L Samnle: 365219-013 / SMP	Batc	h. 1 Matrix:	Soil	00120					
Units: mg/kg	Date Analvzed: 03/13/10 14:42	SU	RROGATE RE	COVERY	STUDY	W				
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluorobenzene		0.0234	0.0300	78	80-120	*				
4-Bromofluorobenzene		0.0358	0.0300	119	80-120					

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Scharb Station Overflow

Vork Orders: 365219	',		Project II): 2008-210		
Lab Batch #: 798281	Sample: 365219-014 / SMP	Batel	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/13/10 15:05	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0243	0.0300	81	80-120	
4-Bromofluorobenzene		0.0313	0.0300	104	80-120	
Lab Batch #: 798281	Sample: 365219-016 / SMP	Batel	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/13/10 15:27	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0249	0.0300	83	80-120	
4-Bromofluorobenzene		0.0354	0.0300	118	80-120	
Lab Batch #: 798281	Sample: 365219-017 / SMP	Batcl	n: 1 Matrix:	Soil	l	
Units: mg/kg	Date Analyzed: 03/13/10 15:49	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I.4-Difluorobenzene		0.0249	0.0300	83	80-120	
4-Bromofluorobenzene		0.0332	0.0300	111	80-120	
Lab Batch #: 798281	Sample: 365219-018 / SMP	Batcl	n: 1 Matrix:	Soil	I	
Units: mg/kg	Date Analyzed: 03/13/10 16:12	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4-Difluorobenzene		0.0251	0.0300	84	80-120	
4-Bromofluorobenzene		0.0210	0.0300	103	80-120	
Lab Batch #: 798281	Sample: 365219-015 / SMP	Batcl	h: 1 Matrix:	Soil	I J	
Units: mg/kg	Date Analyzed: 03/13/10 16:34	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0246	0.0300	82	80-120	
4-Bromofluorobenzene		0.0335	0.0300	112	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



٦

Form 2 - Surrogate Recoveries

Project Name: Scharb Station Overflow

Vork Orders : 365219,	,	Prefe	Project II): 2008-210		
Lab Batch #: 796261	Date Analyzed: 03/13/10 16:57	SU	RROGATE RI	ECOVERY (STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		I
1,4-Difluorobenzene		0.0178	0.0300	59	80-120	*
4-Bromofluorobenzene		0.0358	0.0300	119	80-120	L
Lab Batch #: 798281	Sample: 365219-001 S / MS	S Batel	h: 1 Matrix:	:Soil		
Units: mg/kg	Date Analyzed: 03/13/10 17:19	SU	RROGATE RF	COVERY S	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0282	0.0300	94	80-120	
4-Bromofluorobenzene		0.0308	0.0300	103	80-120	
Lab Batch #: 798281	Sample: 365219-001 SD / N	ASD Bate!	h: 1 Matrix:	:Soil		
Units: mg/kg	Date Analyzed: 03/13/10 17:42	SU	RROGATE RE	ECOVERY S	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1.4. Difluorobenzene		0.0284	0.0300	05	80.120	├────
4-Bromofluorobenzene		0.0204	0.0300	102	80-120	<u> </u>
				0.452		<u></u>
Lab Batch #: /98143	Sample: 338093-1-BK5 / B	KS Bater	n: I Matrix:	Solia	TUDV	
Units: mg/kg	Date Analyzed: 03/15/10 15:37	501	KKUGALE NE		T	
TPH t	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes		۱ I	I '' ,		1
1-Chlorooctane		65.5	50.1	131	70-135	
1-Chlorooctane o-Terphenyl		65.5 79.4	50.1 100	131 79	70-135 70-135	
1-Chlorooctane o-Terphenyl Lab Batch #; 798145	Sample: 558095-1-BSD / B	65.5 79.4 SD Batch	50.1 100 h: 1 Matrix:	131 79 Solid	70-135 70-135	
1-Chlorooctane o-Terphenyl Lab Batch #: 798145 Units: mg/kg	Sample: 558095-1-BSD / B Date Analyzed: 03/15/10 16:04	65.5 79.4 SD Batch SU	50.1 100 h: 1 Matrix: RROGATE RE	131 79 Solid	70-135 70-135 STUDY	
1-Chlorooctane o-Terphenyl Lab Batch #: 798145 Units: mg/kg TPH t	Sample: 558095-1-BSD / B Date Analyzed: 03/15/10 16:04 Dy SW8015 Mod Analytes	65.5 79.4 SD Batel SU Amount Found [A]	50.1 100 h: 1 Matrix: RROGATE RE True Amount [B]	131 79 Solid COVERY ! Recovery %R [D]	70-135 70-135 STUDY Control Limits %R	Flags
1-Chlorooctane o-Terphenyl Lab Batch #: 798145 Units: mg/kg TPH t	Sample: 558095-1-BSD / B Date Analyzed: 03/15/10 16:04 Dy SW8015 Mod Analytes	65.5 79.4 SD Batcl SU Amount Found [A] 62.4	50.1 100 h: 1 Matrix: RROGATE RI True Amount [B] 49.9	131 79 :Solid ECOVERY ! Recovery %R [D] 125	70-135 70-135 STUDY Control Limits %R 70-135	Flags

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Scharb Station Overflow

Vork Orders : 365219),	tu n. (Project IF): 2008-210		
Lab Batch #: 190143	Date Analyzed: 03/15/10 16:30	SU'	RROGATE RI	ECOVERY	STUDY	
TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes	_]	ı!	[D]		ı _
1-Chlorooctanc		43.0	50.2	86	70-135	I
o-Terphenyl		83.1	100	83	70-135	
Lab Batch #: 798145	Sample: 365219-001 / SMP	Batch	n: 1 Matrix:	:Soil		
Units: mg/kg	Date Analyzed: 03/15/10 17:51	SUI	RROGATE RF	SCOVERY S	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		43.6	50.0	87	70-135	ī
o-Terphenyl		84.2	99.9	84	70-135	i
Lab Batch #: 798145	Sample: 365219-002 / SMP	Batel	h: 1 Matrix	:Soil	<u> </u>	
Units: mg/kg	Date Analyzed: 03/15/10 18:18	SUI	RROGATE RF	COVERY 5	STUDY	
TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
L-Chlorooctane	Analytes	A1 2	49.0	+	70 125	I
o-Terphenyl		78.2	99.7	78	70-135	í
* ah Datah #. 798145	L	l	Matrix	- 9 AH		
Lau Dattin #. 1901.0	Data Analyzad: 03/15/10 18:45	SU!	RROGATE RF	ECOVERY /	STUDY	<u></u>
TPH 1	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1 Oligona atoma	Analytes]			i
I-Chlorooctane		44.2	49.9	89	70-135	
0-1 crpneny	2 1 265210 004 / SMP	04.0	77.0		/0-135	
Lab Batch #: />סוייס	Sample: 303219-0047 SIMI	Baten SU ¹	RE 1 MAIRIX.		STUDY	
Units: mg/kg	Date Analyzed: 03/15/10 19:11	Amount	True		Control	ſ
	Analytes	Found [A]	Amount [B]	Recovery %R [D]	Limits %R	Flags
1-Chlorooctane		44.9	49.9	90	70-135	ı
o-Terphenyl		81.3	99.8	81	70-135	,i

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Scharb Station Overflow

Vork Orders : 365219, Lab Batch #: 798145	, Sample: 365219-005 / SMP	Batel	Project II): 2008-210 Soil		
Units: mg/kg	Date Analyzed: 03/15/10 19:38	SU	RROGATE RE	ECOVERY S	STUDY	
ТРН Г	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			(D)		
1-Chlorooctane		41.0	50.1	82	70-135	
o-Terphenyl		77.1	100	77	70-135	
Lab Batch #: 798145	Sample: 365219-006 / SMP	Batcl	h: Matrix:	Soil		· · ·
Units: mg/kg	Date Analyzed: 03/15/10 20:04	SU	RROGATE RE	COVERY	STUDY	
ТРН В	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		44.9	49.9	90	70-135	
o-Tcrphenyl		87.6	99.8	88	70-135	
Lab Batch #: 798145	Sample: 365219-007 / SMP	Batcl	h: 1 Matrix:	Soil	L	
Units: mg/kg	Date Analyzed: 03/15/10 20:31	SU	RROGATE RI	COVERY	STUDY	
ТРН В	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		49.1	50.0	98	70-135	
o-Tcrphcnyl	L	96.8	100	97	70-135	
Lab Batch #: 798145	Sample: 365219-008 / SMP	Batcl	h: 1 Matrix:	Soil	I	
Units: mg/kg	Date Analyzed: 03/15/10 20:58	SU	RROGATE RE	COVERY S	STUDY	
ТРН І	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[1]		ļ
1-Chlorooctanc		44.6	49.9	89	70-135	
o-1 crphenyl	<u>_</u>	85.7	99.8	86	70-135	L
Lab Batch #: 798145	Sample: 365219-009 / SMP	Batcl	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/15/10 21:51		RROGATE RE	COVERY :	STUDY	
ТРН К	oy SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		42.9	49.8	86	70-135	
o-Terphenyl		81.7	99.5	82	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Scharb Station Overflow

Vork Orders : 365219 Lab Batch #: 798145	, Sample: 365219-010 / SMP	Batel	Project ID): 2008-210 Soil		
Units: mg/kg	Date Analyzed: 03/15/10 22:18	SU	RROGATE RF	COVERY (STUDY	. <u> </u>
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		I
1-Chlorooctane		43.4	49.8	87	70-135	
o-Terphenyl		83.6	99.5	84	70-135	I
Lab Batch #: 798145	Sample: 365219-011 / SMP	Batch	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/15/10 22:44	SUI	RROGATE RE	COVERY	STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		44.0	49.9	88	70-135	· · ·
o-Tcrphcnyl		84.2	99.7	84	70-135	l
Lah Batch #: 798145		Batcl	h· 1 Matrix:	Soil	<u> </u>	
Units: mg/kg	Date Analyzed: 03/16/10 00:04	SUI	RROGATE RE	COVERY !	STUDY	
ТРН І	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			נטן		Í
1-Chlorooctane		43.8	49.8	88	70-135	-
o-Terphenyl		82.9	99.5	83	70-135	L
Lab Batch #: 798145	Sample: 365219-015 / SMP	Batch	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/16/10 00:30	SUI	RROGATE RE	COVERY	STUDY	
ТРН І	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		43.8	49.9	88	70-135	1
o-Tcrphcnyl		83.3	99.7	84	70-135	 I
Lab Batch #: 798145	Sample: 365219-016 / SMP	Batch	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/16/10 00:57	SUI	RROGATE RE	COVERY S	STUDY	
ТРН н	by SW8015 Mod Analytes	Amount Found [A]	True Amount {B}	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		42.6	50.1	85	70-135	
o-Terphenyl		80.8	100	81	70-135	i

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Scharb Station Overflow

Vork Orders : 365219	,	Patal	Project ID): 2008-210		
Lab Batch #: 170175	Date Analyzed: 03/16/10 01:24	Daile SU	RROGATE RF	Son COVERY (STUDY	
TPH I	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes		ı!	[D]		
1-Chlorooctane		42.7	49.9	86	70-135	[]
o-Terphenyl		82.3	99.8	82	70-135	I!
Lab Batch #: 798145	Sample: 365219-018 / SMP	Batcł	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/16/10 01:51	SUI	RROGATE RF	COVERY S	STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane		45.7	50.2	91	70-135	l
o-Terphenyl		91.6	100	92	70-135	ſ
Lab Batch #: 798145		Batcl	h. 1 Matrix:	Soil	L	
Units: mg/kg	Date Analyzed: 03/16/10 02:18	SU!	RROGATE RF	COVERY !	STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		65.2	49.9	131	70-135	
o-Terphenyl		83.5	99.7	84	70-135	
Lab Batch #: 798145	Sample: 365219-001 SD / M	SD Batch	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/16/10 02:44	SUI	RROGATE RE	COVERY S	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		63.1	49.9	126	70-135	
o-Terphenyl		80.9	99.8	81	70-135	
Lab Batch #: 798145	Sample: 365219-012 / SMP	Batcl	h: 1 Matrix:	: Soil	L	
Units: mg/kg	Date Analyzed: 03/16/10 23:11	SU	RROGATE RF	COVERY f	STUDY	. <u></u>
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		52.4	50.0	105	70-135	
o-Terphenyl		94.7	100	95	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Scharb Station Overflow

Work Orders: 365219	,		Project II	D:2008-210		
Lab Batch #: 798145	Sample: 365219-013 / SMP	Bate	h: 1 Matrix	:Soil		
Units: mg/kg	Date Analyzed: 03/16/10 23:37	SU	RROGATE R	ECOVERY	STUDY	
TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		48.4	49.8	97	70-135	
o-Terphenyl		90.8	99.5	91	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B





Project Name: Scharb Station Overflow

Work Order #: 365219 Analyst: ASA	Da	ate Prepar	ed: 03/13/201	0		Project ID: 2008-210 Date Analyzed: 03/13/2010									
Lab Batch ID: 798281 Sample: 558179-1-1	BKS	Bate	h #: 1					Matrix: S	Solid						
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	SPIKE DUPI	LICATE	RECOVE	ERY STUD	Ŷ					
BTEX by EPA 8021	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]		[D]	[E]	Result [F]	[G]								
Benzene	ND	0.1000	0.0917	92	0.1	0.0983	98	7	70-130	35					
Toluene	ND	0.1000	0.0874	87	0.1	0.0929	93	6	70-130	35					
Ethylbenzene	ND	0.1000	0.0897	90	0.1	0.0950	95	6	71-129	35					
m,p-Xylenes	ND	0.2000	0.1722	86	0.2	0.1816	91	5	70-135	35					
o-Xylene	ND	0.1000	0.0854	85	0.1	0.0902	90	5	71-133	35					
Analyst: BEV	D	ate Prepar	ed: 03/15/201	0			Date A	nalyzed: (3/15/2010						
Lab Batch ID: 798145 Sample: 558095-1-1	BKS	Bate	h #: 1					Matrix: S	Solid						
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUD	Ŷ	- <u></u> -				
TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag				
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1110	111	997	1050	105	6	70-135	35					
C12-C28 Diesel Range Hydrocarbons	ND	1000	862	86	997	884	89	3	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



Project Name: Scharb Station Overflow



Work Order #: 365219						Project II	D: 2008-2	10			
Lab Batch ID: 798281 Date Analyzed: 03/13/2010	QC- Sample ID: Date Prepared:	365219 03/13/2	-001 S 010	Ba An	itch #: alyst:	1 Matri ASA	x: Soil				
Reporting Units: mg/kg		N	IATRIX SPIK	E / MAT	'RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		,
BTEX by EPA 8021	Parent Sample Result	Spike Added	Spiked Sample Result	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result (F)	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[~]	[D]	[E]	recourt [1]	[G]				
Benzene	ND	0.0990	0.0782	79	0.0990	0.0755	76	4	70-130	35	
Toluene	ND	0.0990	0.0753	76	0.0990	0.0719	73	5	70-130	35	
Ethylbenzene	ND	0.0990	0.0771	78	0.0990	0.0736	74	5	71-129	35	
m,p-Xylenes	ND	0.1980	0.1486	75	0.1980	0.1428	72	4	70-135	35	
o-Xylene	ND	0.0990	0.0732	74	0.0990	0.0700	71	4	71-133	35	
Lab Batch ID: 798145 Date Analyzed: 03/16/2010	QC- Sample ID: Date Prepared:	365219 03/15/2	-001 S 010	Ba An	itch #: alyst:	l Matri: BEV	x: Soil				
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH by SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
C6-C12 Gasoline Range Hydrocarbons	ND	1090	1170	107	1090	1130	104	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1090	960	88	1090	981	90	2	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



Sample Duplicate Recovery



Project Name: Scharb Station Overflow

Work Order #: 365219

Lab Batch #: 798453			Project I	D: 2008-210)
Date Analyzed: 03/16/2010 Date P	repared: 03/16/2010	Ana	yst:JLG		
QC- Sample ID: 365219-001 D	Batch #: 1	Mat	rix: 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]			
Percent Moisture	8.30	8.37	1	20	

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

Er a XEI	NCO Laboratory Compar	tal Lab of T	exa	IS					12 Ot	2600 V dessa	(Vest , Te:	CHAI 1-20 xas 7	N C Eas 976	0F () it i5	บร	TODY R	EC	OR	D A	ND	AN	IAL Pho Fa	YSI one: x:	S R 43: 43:	EQ 2-56 2-56	<i>UES</i> 3-18 3-17	;T 00 13			
	Project Manager:	Camille Bryant				luhz										Pro	ojec	rt Na	ame	: Sc	:ha	rb S	itat	ion	<u>0w</u>	rfic	w			
	Company Name	Basin Consulting				U											P	roie	ct #	: 20	08-	210								
	Company Address				······································	<u> </u>										-														
	Company Address	PU Box 381														F	-ro _j	BCI	LOC	Le	au	Juni	у, п	AN						
	City/State/Zip:	Lovington, NM 88260																P	°O #		A-D	. Br	yan	<u>t</u>						<u> </u>
	Telephone No:	975-605-7210				Fax No:		(57	5) 3	396-14	29			<u> </u>		Report	t Fo	HTTH	at:	X	Sta	nda	rđ			TRR	P	[PDES
	Sampler Signature	amor	150	-w	t	e-mail:		<u>cit</u>	bry	/ant(<u>D</u> ba	asin	<u>-co</u>	nsı	ltin	<u>g.com</u>	_									الأبريسي				
(lab u	se only)			0		-															τιν	A I	naly T	28 F	ör:				-	-
	Z(10	5719						1					6.60	at alm			Ē			T	TAL		Ι.		\square					8, 72.
			<u> </u>	1	<u> </u>	1			F			470			= 5		25	ß				Hg Se			8260					2
# (lab use only)			Inning Depth	ing Depth	le Sampled	le Sampled	Filtered	#. of Containers		-		5 3	5,03	9	er (Specify)	. Drinking Water SL = Sl • Croundwater 5 = Soli Non-Potable Specify	: 418.1 BO15M	TX 1005 TX 10	ons (Ca, Mg, Na, K)	ns (Cl. SO4, Alkatinity)	/ESP/CEC	Is: As Ag Ba Cd Cr Pb	tiles	ivolatikas	X 8021 15030 or BTE		R.M.	LORIDES		SH TAT (Pre-Schedule advict TAT
3	FIE		Beg	End.	Qai	Line Line Line Line Line Line Line Line	Fie <u>F</u>	Total	8	Ť	Э Ч	žΞ	R.	ş	ð	DW- NP-	H	Ē	ğ	<u>Å</u>	R R	Mete	500	Б.	N	ÿ	Ž	희		25
0	M\	V-3 <u>@ 5'</u>			9-Mar-10	0900	ļ.	1	X		_					SOIL	×	4	4_	4			╞	╞	X	_	_	_		╋╋
0	L MV	/-3@10'			9-Mar-10	0910	<u> </u>	1	X	4-+	-		+			SOIL	×	4	╉	-	╞	┢		┢	×	\rightarrow	┥	-+	┿	╉╇
$\frac{\partial^2}{\partial t}$	<u>8</u> MV	/-3 @ 30'			9-Mar-10	0925		1	X		╇		\vdash	+		SOIL	X	-	┿	┢	-	+	┢	┢	X	\dashv	-+	+-	+	╉┼
0	ł MW-2	@ surface	+		9-Mar-10	1040	+	1	Ľ		+		┢	┼─		SOIL			+	-	┢	-	┼╌	┢	 		+	-+	╋	╂╍┽
لم تر	M	V-2@5'	-	-	9-Mar-10	1050	+		HČ		+		┨	┝	_	SOIL	łĈ		+	╋	+	┼─	┢	┢─	I	\neg	-+	╉	+	++
		1-2 @ 10"			9-Mar-10	1140	-	4	ĥ	╂╌┼		-	<u> </u>	┢─		SOIL	tî		+	+	╀╼	+	\mathbf{I}	┢	X		\neg		╋	++
$\frac{1}{\alpha}$		N-1 @5'	+		9-Mar-10	1300	\square	1	x			+		┢╌		SOIL	T _x		╋	┢	\top	T	\square	1	X		-1		T	
10	91 MW	/-1 @ 10'		<u> </u>	9-Mar-10	1310	1	1	X				Γ	\square		SOIL	X		T		ſ				X					
1) MW	-1 @ 25'		1	9-Mar-10	1345		1	X				Γ			SOIL	X	ł					T		X					
Speci Reinc Reing	al Instructions: uisked by: uished by Uished by	- 3/10/10 Date 3/11/10		rne 0 rne 9 40	Received by	Ú.								31	Da (<i>c</i>	te 15 j-	Th 79 Tin	ne ne		bor inp DCs bala isto isto isto isto by by	ator Fre- bri dy s by s ly s le Hi San Col	y Co and con con con con con con con con con con	Hea aint on c on c Oeli /Clie	vent stratu dspa sont sont sook vere ant R UP	s: act? siner s(s) d ep. 7 'S	(s) DH	<i>(16.)</i> 81.9 85.6 L	Fedi	P Y Y Y Y Ex L	N N N N N N N Sone Stal

 $\overline{}$

	/ironment	al Lab of T	exa	IS				12 Or	1600 dess	We: a, T	CH st I-2 exas	AIN 10 E	/ OF ast 765	cus	6 7 0	DY R	EC	ORD	AN	D A	ANA Pi F	LY hon ax:	SIS e: 4: ; 4:	REG 32-51 32-51	2 <i>UE</i> 63-1 83-1	ST 800 713				
	Project Manager:	Camille Bryant				20	<u>l z</u>	<u> </u>							_	Pr	ojeci	t Nar	ne:_	Sch	arb	St	<u>atior</u>	<u>1 01</u>	/erfi	ow				
	Company Name	Basin Consulting				(<u> </u>							_	_		Pr	ojec	t#:_	200	8-21	10						<u> </u>		
	Company Address:	PO Box 381													-	1	Proje	ect L	oc: l	.ea	Coui	nty,	NM							
	City/State/Zip:	Lovington, NM 88260													-			PC	- #:1	•AA	-D. E	Brya	ınt							
	Telephone No:	575-605-7210			· · · · · · · · · · · · · · · · · · ·	Fax No:	: (5	;75) :	396-1	429					- F	Repor	t Foi	mat	. [x] ,	Stand	dard		Ē		RP			IPDE:	s
	Sampler Signature	Conder	-	c.)		e-mail	. <u>.</u>	ibn	/ant	 @I	basi	in-c	xons	ulti	- na.a	om			_											
	oumpior orginature.		<u> </u>	<u>juri</u>													F			-		Ana	iyze i	-or:					Τ.	1
(lab use (anly) All of the second se	6719						_								-	E			10 101,	LP: AL:	1	\pm	<u>+</u> x				1	4 F	
ORDER	t#: <u>)</u> _{	501	1	T	<u> </u>		, , , , , , , , , , , , , , , , , , , 	₽	reser	vatio	n & /	f of (tonta	ners	 ₽	atrix Š Ē	615B	, e				8 5		8260					4 7	h
AB # (tab use only)	FIEL	D CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Fittered Total #. of Containers	tce	HNO3	нсі	H ₂ SQ ₄	NaOH	Na ₂ S ₂ O ₃	Other (Specify)	DW-Orlnking Water SL-Stu	CW - Croundwater S-SoliA NP-Non-Potable Specify O	TPH: 418.1 (8015M) 8	TPH: TX 1005 TX 100	Cations (Ca, Mg, Na, K)	Anions (Cl. SO4, Alkalinity)	SAR / ESP / CEC	MOURIS: AS AG BA CO CI PD P	Volatikes Semivolatikes	STEX 802 (15030 or BTEX	RC	N.O.R.M.	CHLORIDES		RUSH TAT (Pre-Schedule)	Standard TAT
	MW-	·1 @ 30'			9-Mar-10	1400	1	X							s	OIL	X	Ĺ						x			\Box		T	
12	MW-4	Surface			9-Mar-10	1530		X						Γ	s	OIL	X							<u> </u>		\square			╇	\square
13	MW	-4@5'			9-Mar-10	1540		X			_	_		1_	s	OIL	X			_		_	\bot	⊥×	.			┝━╋╴	┶	\bot
14	MW-	4@10'	<u> </u>	<u> </u>	9-Mar-10	1550	<u> 1</u>	Ц×				-			s	OIL	×			_		\downarrow	+	⊥×	+	┝╴┥	\vdash	┝━╋╸	╇	+
کد	MW-	4@15'			9-Mar-10	1610	<mark>┼┼¹</mark>	+×	-			-+		4-	S	Oil	<u>+×</u>	\vdash	+	-+	+	+	┿	+ <u>×</u>	<u> </u>	\vdash	┝╌┥	┝╼╇	╉	+
<u> </u>	MW-	4@20'		╂──-	9-Mar-10	1630		¥	_		+	+		+-			<u> X</u>			+	+	_	┿	Ť	<u>_</u>	┢─┤	┠╼┥	┍─┾╴	╋	╉─
	MYV-	4@25'			9-Mar-10	1650	┼┼╴	犬	+			+	+	┿	3		<u>†</u> €		-+	┽	╈	+	+-	<u></u>	+	⊢	┝╌┥	\vdash	╉	╉╼┥
		- <u>@</u> 30		†	3-Midi-10		╞┼┼╴	f				+		╋	Ť		ŕ	$\left[\right]$	-+	+	╈		+		Ħ				十	\top
						······································		T	\uparrow			1		+			T												Τ	Τ
Special in Relinquish Relinquish	nstructions: ned by: Nulle Reco	Date 3/15/10 2/11/10	17.0 17.0 04	me me YD	Received by:	Á	~		-			-	B	D D D	ate // C ate	, /	Tim 7@ Tim	ه در •	Lab San VOC Cus Cus San	is Friday ple py So py C	ory (Cont ree o seal seal Hand ampl ourie	Con Afficiant Is of Is of Afficianta	imen Nadsp N	ts: Jace Laine Laine Rep. PS	? ? ? DH		Fed	Y Y Y Y Ex I	N N N N N Lone S	Star
Relinquish	ned by	Date		me	The second by Eld	T		·					-	5/10	1e	0	7 <u>4</u>	ь 0	Tem	pera	ature	Up	on Re		л: 			1.	1.0	;

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Plains ____ Client: asi OTHO Date/ Time: 01 Lab ID # : Initials:

Sample Receipt Checklist

				<u> </u>	<u>Client Initials</u>
#1	Temperature of container/ cooler?	(Yes)	No	1.1 °C	
#2	Shipping container in good condition?	(es)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present,	
#4	Custody Seals intact on sample bottles/ container?	(es)	No	Not Present	
#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?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Ves	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples property preserved?	(es)	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)?	Tes	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?	res	No	Not Applicable	

Variance Documentation

Contact:	Contacted by:		Date/ Time:				
Regarding:							
بر همینی بر با با بر این با می و معمول کار میں و معمول کار میں و م							
Corrective Action Taken:							

Check all that Apply:

1

CONTRACT.

に見たが出ていた。

ALC: N

See attached e-mail/ fax

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

Analytical Report 373107

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Scharb Station Overflow

2008-210

24-MAY-10





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295)



24-MAY-10



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

Reference: XENCO Report No: 373107 Scharb Station Overflow Project Address: Lea County, NM

Jason Henry:

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 373107. 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. 373107 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



,



Sample Cross Reference 373107

PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Station Overflow

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NSW-1	S	May-14-10 14:00	2 ft	373107-001
ESW-1	S	May-14-10 14:05	3 ft	373107-002
NSW-2	S	May-14-10 14:10	3.5 ft	373107-003
ESW-2	S	May-14-10 14:15	3 ft	373107-004
SSW-1	S	May-14-10 14:20	3 ft	373107-005
WSW-2	S	May-14-10 14:25	3.5 ft	373107-006
WSW-1	S	May-14-10 14:30	2 ft	373107-007
Floor-1	S	May-14-10 14:35	2.5 ft	373107-008
Floor-2	S	May-14-10 14:40	4 ft	373107-009
Floor-3	S	May-14-10 14:45	3.5 ft	373107-010



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Scharb Station Overflow



 Project ID:
 2008-210

 Work Order Number:
 373107

Report Date: 24-MAY-10 Date Received: 05/15/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-806913 Percent Moisture None

Batch: LBA-807128 TPH by SW8015 Mod None

Batch: LBA-807733 BTEX by EPA 8021 SW8021BM

Batch 807733, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 373107-001, -003, -005, -006, -008, -004. The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 807733, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 373107-005,373107-008,373107-006.

Batch: LBA-807744 BTEX by EPA 8021 SW8021BM

Batch 807744, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis Samples affected are: 372881-006 D,373107-007,373107-002 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis Samples affected are: 372881-006 D,373107-007,73107-002. Samples 373107-009 and -010 were not reanalyzed due to similar matrix interferences with the surrogates noted in other samples from this site.



Certificate of Analysis Summary 373107 PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Scharb Station Overflow



Date Received in Lab: Sat May-15-10 11:15 am

Contact: Jason Henry Project Location: Lea County, NM

Project Id: 2008-210

Report Date: 24-MAY-10

								Project Ma	nager:	Brent Barron	, II		
Lab Id:		373107-	001	373107-0	002	373107-	003	373107-004		373107-005		373107-006	
Analysis Requested	Field Id:	NSW-	1	ESW-1	l	NSW	-2	ESW-	2	SSW-	1	wsw	-2
Analysis Kequestea	Depth:	2- ft		3- ft		3.5- 1	ł	3- ft		3- ft		3.5- f	t
Matrix:		SOIL		SOIL		SOII		SOIL	,	SOIL		SOIL	
	Sampled:	May-14-10	14:00	May-14-10	14:05	May-14-10	14:10	May-14-10	14:15	May-14-10	14:20	May-14-10 14:25	
BTEX by EPA 8021	Extracted:	May-19-10	14:58	May-21-10	11:00	May-19-10	14:58	May-19-10	14:58	May-19-10	14:58	May-19-10	14:58
	Analyzed:	May-20-10	18:29	May-21-10	15:49	May-20-10	18:51	May-20-10	19:14	May-20-10	21:06	May-20-10 21:28	
	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	0.5379	ND	0.0012	ND	0.0011	ND	0.0012	ND	0.0011
Toluene		ND	0.0022	ND	1.076	ND	0.0025	ND	0.0022	ND	0.0023	ND	0.0023
Ethylbenzene		ND	0.0011	8.257	0.5379	ND	0.0012	ND	0.0011	ND	0.0012	ND	0.0011
m,p-Xylenes		ND	0.0022	38.62	1.076	ND	0.0025	ND	0.0022	0.0037	0.0023	ND	0.0023
o-Xylene		ND	0.0011	5.412	0.5379	ND	0.0012	ND	0.0011	ND	0.0012	ND	0.0011
Xylenes, Total		ND	0.0011	44.03	0.5379	ND	0.0012	ND	0.0011	0.0037	0.0012	ND	0.0011
Total BTEX		ND	0.0011	52.29	0.5379	ND	0.0012	ND	0.0011	0.0037	0.0012	ND	0.0011
Percent Moisture	Extracted:												
	Analyzed:	May-17-10	17:00	May-17-10	17:00	May-17-10	17:00	May-17-10	17:00	May-17-10	17:00	May-17-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		9.63	1.00	7.05	1.00	19.2	1.00	10.4	1.00	14.3	1.00	11.6	1.00
TPH by SW8015 Mod	TPH by SW8015 Mod Extracted: May-17-10		14:00	May-17-10	14:00	May-17-10 14:00		May-17-10 14:00		May-17-10	14:00	May-17-10	14:00
Analyzed:		May-18-10	10:07	May-18-10	10:55	May-18-10	11:24	May-18-10	11:53	May-18-10	12:23	May-18-10	12:53
	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	16.7	3310	162	ND	93.3	ND	16.7	ND	17.5	ND	16.9
C12-C28 Diesel Range Hydrocarbons		ND	16.7	4460	162	521	93.3	108	16.7	34.4	17.5	241	16.9
C28-C35 Oil Range Hydrocarbons		ND	16.7	756	162	114	93.3	32.0	16.7	ND	17.5	46.6	16.9
Total TPH		ND	16.7	8526	162	635	93.3	140	16.7	34.4	17.5	288	16.9

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 judgment of XENCO Laboratories. XENCO Laboratorics assumes no 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 - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II

Odessa Laboratory Manager

Contact: Jason Henry

Certificate of Analysis Summary 373107

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Scharb Station Overflow



Date Received in Lab: Sat May-15-10 11:15 am

Report Date: 24-MAY-10

roject Location: Lea County, NM								Report	t Date:	24-MAY-10	
								Project Ma	nager:	Brent Barron, II	
	Lab Id:	373107-007		373107-0	08	373107-0)09	373107-	010		
Analysis Paguastad	Field Id:	WSW-1		Floor-1		Floor-	2	Floor-	3		
Anutysis Kequestea	Depth:	2- ft		2.5- ft		4- ft		3.5- f	t		
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	May-14-10 14:	30	May-14-10	4:35	May-14-10	14:40	May-14-10	14:45		
BTEX by EPA 8021	Extracted:	May-21-10 11:	00	May-19-10	14:58	May-21-10	11:00	May-21-10	11:00		
	Analyzed:	May-21-10 16:	12	May-20-10	22:13	May-21-10	16:35	May-21-10	16:57		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		ND 0.0	0110	ND	0.0011	ND	0.0234	ND	0.5533		
Toluene		0.1384 0.0)220	ND	0.0022	0.1633	0.0467	ND	1.107		
Ethylbenzene		0.3897 0.0	0110	ND	0.0011	2.132	0.0234	3.591	0.5533		
m,p-Xylenes		4.723 0.0	0220	0.0025	0.0022	9.211	0.0467	14.56	1.107		
o-Xylene		1.265 0.0	0110	0.0015	0.0011	2.216	0.0234	2.462	0.5533		
Xylenes, Total		5.988 0.0	0110	0.0040	0.0011	11.427	0.0234	17.02	0.5533		
Total BTEX		6.516 0.0	0110	0.0040	0.0011	13.722	0.0234	20.61	0.5533		•
Percent Moisture	Extracted:										
	Analyzed:	May-17-10 17:	00	May-17-10	17:00	May-17-10	17:00	May-17-10	17:00		
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		8.98	1.00	11.1	1.00	14.4	1.00	9.63	1.00		
TPH by SW8015 Mod	Extracted:	May-17-10 14:	00	May-17-10	14:00	May-17-10	14:00	May-17-10	14:00		
	Analyzed:	May-18-10 13:	23	May-18-10	15:02	May-18-10	15:31	May-18-10	16:01		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		602	16.5	ND	16.8	848	87.4	1280	82.9		
C12-C28 Diesel Range Hydrocarbons		1230	16.5	71.0	16.8	725	87.4	2800	82.9		
C28-C35 Oil Range Hydrocarbons		72.1	16.5	ND	16.8	ND	87.4	299	82.9		
Total TPH		1904	16.5	71.0	16.8	1573	87.4	4379	82.9		

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 judgment of XENCO Laboratories. XENCO Laboratories assumes no 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 - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II

Odessa Laboratory Manager





- 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 and above the SQL.
- 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.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL Below Reporting Limit.
- RL Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Corpus Christi - Midland/Odessa - Tampa - Miami - Latin America

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116
	Phone (281) 240-4200 (214) 902 0300 (210) 509-3334 (813) 620-2000 (305) 823-8500 (432) 563-1800 (361) 884-0371



Project Name: Scharb Station Overflow

Work Orders: 373107	,		Project If): 2008-210							
Lab Batch #: 807733	Sample: 563967-1-BKS / B	KS Batch: I Matrix:Solid									
Units: mg/kg	Date Analyzed: 05/20/10 14:22	50									
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
	Analytes	([D]	((
1,4-Difluorobenzenc		0.0291	0.0300	97	80-120						
4-Bromofluorobenzene		0.0281	0.0300	94	80-120						
Lab Batch #: 807733	Sample: 563967-1-BSD / B	SD Batel	h: 1 Matrix:	Solid							
Units: mg/kg	Date Analyzed: 05/20/10 14:45	SU	RROGATE RE	COVERY S	STUDY						
BTE	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
1.4-Difluorobenzene		0.0303	0.0300	101	80-120	 					
4-Bromofluorobenzene		0.0306	0.0300	102	80-120						
L 4. 807733	Sample: 563967-1-BLK / P	L Batel	L. 1 Matrix:	Solid	<u> </u>	<u> </u>					
Units: mg/kg	Date Analyzed: 05/20/10 15:52	SURROGATE RECOVERY STUDY									
BTE		Amount	True	<u> </u>	Control						
D I E	A by EFA ouzi	Found [A]	Amount [B]	Recovery %R [D]	Limits %R	Flags					
1.4-Difluorobenzene		0.0244	0.0300	<u></u>	80-120						
4-Bromofluorobenzene		0.0290	0.0300	97	80-120						
L b D 4-b # 907722			1 Motrive		00.20						
Lab Baten #: 807733	Sample: 3/3107-001 / SWIP	Batch: I Matrix: Soll									
Units: mg/kg	Date Analyzed: 05/20/10 18:29					r					
BTE	X by EPA 8021 Analvtes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluorobenzenc		0.0240	0.0300	80	80-120						
4-Bromofluorobenzene		0.0288	0.0300	96	80-120						
Lab Batch #: 807733	Sample: 373107-003 / SMF	Batcl	h: 1 Matrix:	: Soil	لــــــــــــــــــــــــــــــــــــ						
Units: mg/kg	Date Analyzed: 05/20/10 18:51	SU	RROGATE RE	COVERY	STUDY						
BTE	BTEX by EPA 8021			Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluorobenzene		0.0242	0.0300	81	80-120						
4-Bromofluorobenzene		0.0276	0,0300	92	80-120						

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Scharb Station Overflow

Vork Orders: 373107	/,	Datal	Project ID): 2008-210						
Lab Baten #: ov (133	Sample: 575107-0047 Sivil Data Analyzadi 05/20/10 10:14	Baten	RROGATE RI	ECOVERY (STUDY	ـــــــــــــــــــــــــــــــــــــ				
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
	Analytes]	[D]		1				
1,4-Difluorobenzene		0.0243	0.0300	81	80-120					
4-Bromofluorobenzene		0.0280	0.0300	93	80-120					
Lab Batch #: 807733	Sample: 373107-005 / SMP	Batch	a: 1 Matrix:	Soil						
Units: mg/kg	Date Analyzed: 05/20/10 21:06	SUF	RROGATE RE	COVERY S	STUDY					
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1.4-Difluorobenzene		0.0230	0.0300	77	80-120	*				
4-Bromofluorobenzene	+	0.0288	0.0300	96	80-120					
Lab Batch #: 807733	Sample: 373107-006 / SMP	Batch	n: 1 Matrix:	: Soil	<u> </u>					
Units: mg/kg	Date Analyzed: 05/20/10 21:28	SURROGATE RECOVERY STUDY								
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
	Analytes			[D]		I				
1,4-Difluorobenzene		0.0235	0.0300	78	80-120	*				
4-Bromofluorobenzene		0.0279	0.0300	93	80-120	L				
Lab Batch #: 807733	Sample: 373107-008 / SMP	Batch	1: 1 Matrix:	, Soil						
Units: mg/kg	Date Analyzed: 05/20/10 22:13	SUF	RROGATE RE	COVERY S	STUDY					
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1 4-Difluorobenzene		0.0232	0.0300	77	80-120	*				
4-Bromofluorobenzene		0.0294	0.0300	98	80-120	[
Lab Batch #: 807733	Sample: 372870-001 S / MS	Batcl	h 1 Matrix:	: Soil	<u> </u>	-				
Units: mg/kg	Date Analyzed: 05/21/10 01:13	SUI	RROGATE RF	COVERY :	STUDY					
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluorobenzene		0.0257	0.0300	86	80-120					
4-Bromofluorobenzene		0.0268	0.0300	89	80-120	1				

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Scharb Station Overflow

Work Orders: 37310	7,		Project II	D: 2008-210						
Lab Batch #: 807733	Sample: 372870-001 SD / N	MSD Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY								
Units: mg/kg	Date Analyzed: 05/21/10 01:35									
BT	EX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
	Analytes			{D}						
1,4-Difluorobenzene		0.0268	0.0300	89	80-120					
4-Bromofluorobenzene		0.0293	0.0300	98	80-120					
Lab Batch #: 807744	Sample: 563977-1-BKS / B	KS Bate	h: 1 Matrix:	Solid						
Units: mg/kg	Date Analyzed: 05/21/10 13:55	SU	RROGATE RE	ECOVERY	STUDY					
BT	EX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R {D]	Control Limits %R	Flags				
1,4-Difluorobenzene		0.0299	0.0300	100	80-120					
4-Bromofluorobenzene		0.0297	0.0300	99	80-120					
Lab Batch #: 807744	Sample: 563977-1-BSD / B	SD Bate	h: ¹ Matrix:	Solid	L					
Units: mg/kg	Date Analyzed: 05/21/10 14:18	SU	RROGATE RE	ECOVERY	STUDY					
BTI	EX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluorobenzene		0.0299	0.0300	100	80-120	<u> </u>				
4-Bromofluorobenzene		0.0301	0.0300	100	80-120	, <u></u>				
Lab Batch #: 807744	Sample: 563977-1-BLK / B	BLK Batcl	h: 1 Matrix:	Solid						
Units: mg/kg	Date Analyzed: 05/21/10 15:26	SURROGATE RECOVERY STUDY								
BT	EX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
	Analytes			נען						
1,4-Difluorobenzene		0.0242	0.0300	81	80-120					
4-Bromofluorobenzene		0.0291	0.0300	97	80-120					
Lab Batch #: 807744	Sample: 373107-002 / SMF	Batc	h: 1 Matrix:	:Soil						
Units: mg/kg	SU	RROGATE RI	ECOVERY	STUDY						
BTI	BTEX by EPA 8021 Analytes			Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluorobenzene		0.0201	0.0300	67	80-120	**				
4-Bromofluorobenzene		0.0402	0.0300	134	80-120	**				

* Surrogate outside of Laboratory QC limits

** 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.


Project Name: Scharb Station Overflow

Work Orders : 373107	, , Samala, 272107.007 / SMP	Detal	Project IE): 2008-210		
Lab Batch #: 807/44	Date Analyzed: 05/21/10 16:12	SU	RROGATE RE	COVERY S	STUDY	
BTE	EX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			נטן		
1,4-Difluorobenzene		0.0166	0.0300	55	80-120	**
4-Bromofluorobenzene		0.2077	0.0300	692	80-120	**
Lab Batch #: 807744	Sample: 373107-009 / SMP	Bate	h: l Matrix:	Soil		
Units: mg/kg	Date Analyzed: 05/21/10 16:35	SU	RROGATE RE	ECOVERY	STUDY	
BTE	CX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0150	0.0300	50	80-120	**
4-Bromofluorobenzene		0.1447	0.0300	482	80-120	**
Lab Batch #: 807744	Sample: 373107-010 / SMP	Bate	h: ¹ Matrix:	Soil	<u> </u>	
Units: mg/kg	Date Analyzed: 05/21/10 16:57	SU	RROGATE RE	ECOVERY	STUDY	
BTE	CX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[0]		
1,4-Difluorobenzene		0.0233	0.0300	78	80-120	**
4-Bromofluorobenzene		0.0399	0.0300	133	80-120	**
Lab Batch #: 807744	Sample: 372881-006 D / MI	D Bate	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 05/22/10 10:47	SU	RROGATE RE	ECOVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0213	0.0300	71	80-120	**
4-Bromofluorobenzene		0.0519	0.0300	173	80-120	**
Lab Batch #: 807128	Sample: 563591-1-BKS / B	KS Bate	h: 1 Matrix:	:Solid	<u></u>	L
Units: mg/kg	Date Analyzed: 05/17/10 17:15	SU	RROGATE RE	ECOVERY	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		88.0	99.9	88	70-135	
o-Terphenyl		39.4	50.0	79	70-135	

* Surrogate outside of Laboratory QC limits

** 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.



Project Name: Scharb Station Overflow

Work Orders : 373107 Lab Batch #: 807128	7, Sample: 563591-1-BSD / B	SD Batc	Project II h: 1 Matrix:	D: 2008-210 Solid		
Units: mg/kg	Date Analyzed: 05/17/10 17:44	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
L Chlanastan	Analytes	<u> </u>				
1-Chiorooctane		87.7	100	88	70-135	
0-Terphenyi		39.0	50.2	79	/0-135	
Lab Batch #: 807128	Sample: 563591-1-BLK / B	LK Bate	h: 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 05/17/10 18:15	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		79.3	100	79	70-135	
o-Terphenyl		44.1	50.1	88	70-135	
Lab Batch #: 807128	Sample: 373107-001 / SMP	Bate	h: ¹ Matrix:	: Soil		
Units: mg/kg	Date Analyzed: 05/18/10 10:07	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		74.0	101	73	70-135	
o-Terphenyl		40.7	50.3	81	70-135	
Lah Batch #: 807128	Sample: 373107-002 / SMP	Bate	h: 1 Matrix:	Soil	I	
Units: mg/kg	Date Analyzed: 05/18/10 10:55	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			נען		
1-Chlorooctane		101	100	101	70-135	
o-Terphenyl		42.5	50.1	85	70-135	
Lab Batch #: 807128	Sample: 373107-003 / SMP	Bate	h: 1 Matrix:	:Soil		
Units: mg/kg	Date Analyzed: 05/18/10 11:24	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane						
1 Childrobetane		85.6	101	85	70-135	

* Surrogate outside of Laboratory QC limits

** 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.



Project Name: Scharb Station Overflow

Work Orders : 373107	, , 	Detail	Project II): 2008-210		
Lan batch #: 00/120	Date Analyzed: 05/18/10 11:53	Batch	RROGATE RI	ECOVERY S	STUDY	
TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes	70.7		[D]		
1-Chlorooctane		78.7	99.7	79	70-135	
0-Terphenyi		43.8	49.9	00	70-133	
Lab Batch #: 807128	Sample: 373107-005 / SMP	Batel	h: Matrix:	Soil		
Units: mg/kg	Date Analyzed: 05/18/10 12:23	SU.	RRUGATE RE		STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		71.6	99.7	72	70-135	
o-Terphenyl		38.7	49.9	78	70-135	
Lab Batch #: 807128	Sample: 373107-006 / SMP	Batcl	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 05/18/10 12:53	SU	RROGATE RI	COVERY	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		75.7	99.7	76	70-135	
o-Terphenyl		41.2	49.9	83	70-135	<u> </u>
Lab Batch #: 807128	Sample: 373107-007 / SMP	Batel	h: 1 Matrix:	Soil	I	L
Units: mg/kg	Date Analyzed: 05/18/10 13:23	SU	RROGATE RI	COVERY	STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[0]		
I-Chlorooctane		80.8	100	81	70-135	
o-Terphenyi		43.4	50.1	8/	70-135	_
Lab Batch #: 807128	Sample: 373107-008 / SMP	Bate	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 05/18/10 15:02	50	RRUGATE RI	COVERY		
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		74.1	99.8	74	70-135	
o-Terphenyl		41.6	49.9	83	70-135	

* Surrogate outside of Laboratory QC limits

** 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.



Project Name: Scharb Station Overflow

Lab Batch #: 807128 Sample: 373107-009 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 05/18/10 15:31 SURROGATE RECOVERY STUDY Analytes Amount [A] Amount Found [A] Recovery SR [ID] Control SR (ID] Flags 1-Chlorooctane 77.2 99.7 77 70-135 - 0-Terphenyl 36.9 49.9 74 70-135 - Lab Batch #: 807128 Sample: 373107-010 / SMP Batch: 1 Matrix: Soil - TPH by SW8015 Mod Amount [A] True Found [A] Recovery SR (ID] Control Limits Flags 1-Chlorooctane 95.7 99.9 94 70-135 - TPH by SW8015 Mod Analytes Amount [A] Recovery SR (ID] Control Limits Flags 1-Chlorooctane 95.7 99.9 94 70-135 - Lab Batch #: 807128 Sample: 373155-002 S / MS Batch: 1 Matrix: Soil - Lab Batch #: 807128 Sample: 373155-002 S / MS Batch: 1 Matrix: Soil - L	Work Orders: 373107	2		Project II): 2008-210		
Units: mg/kg Date Analyzed: 05/18/10 15:31 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount Found (A) True (B) Recovery (B) Control (B) Flags 1-Chlorooctane 77.2 99.7 77 70-135 - 0-Terphonyl 36.9 49.9 74 70-135 - Lab Batch #: 807128 Sample: 373107-010 / SMP Batch: 1 Matrix:Soil - Units: mg/kg Date Analyzed: 05/18/10 16:01 SURROGATE RECOVERY STUDY - - TPH by SW8015 Mod Amount Found [A] True Amount [B] Recovery %R Control Limits Flags 1-Chlorooctane 93.7 99.9 94 70-135 - 1-Chlorooctane 93.7 99.9 94 70-135 - Lab Batch #: 807128 Sample: 373155-002 S / MS Batch: 1 Matrix: Soil - Units: mg/kg Date Analyzed: 05/18/10 16:32 SURROGATE RECOVERY STUDY - - TPH by SW8015 Mod Amount [A] True Amount [B] Matrix:Soil -	Lab Batch #: 807128	Sample: 373107-009 / SMP	Batel	h: 1 Matrix:	Soil		
TPH by SW8015 Mod Analytes Amount Found [A] True Amount [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctane 77.2 99.7 77 70-135 - o-Terphenyl 36.9 49.9 74 70-135 - u-Terphenyl 36.9 49.9 74 70-135 - Lab Batch #: 807128 Sample: 373107-010 / SMP Batch: 1 Matrix: Soil - Units: mg/kg Date Analyzed: 05/18/10 16:01 SURROGATE RECOVERY STUDY Flags 1-Chlorooctane 93.7 99.9 94 70-135 - 1-Chlorooctane 93.7 99.9 94 70-135 - Lab Batch #: 807128 Sample: 373155-002 S / MS Batch: 1 Matrix:Soil - Units: mg/kg Date Analyzed: 05/18/10 16:32 SURROGATE RECOVERY STUDY - - TPH by SW8015 Mod Amount [A] True Amount [B] Recovery %R - - 1-Chlorooctane 93.4 99.6 94 70-135 -	Units: mg/kg	Date Analyzed: 05/18/10 15:31	SU	RROGATE RI	ECOVERY	STUDY	
I-Chlorooctane 77.2 99.7 77 70-135 o-Terphenyl 36.9 49.9 74 70-135 Lab Batch #: 807128 Sample: 373107-010 / SMP Batch: 1 Matrix:Soil Units: mg/kg Date Analyzed: 05/18/10 16:01 SURROGATE RECOVERY STUDY Flags Analytes [B] Marin::Soil Control Limits Flags 1-Chlorooctane 93.7 99.9 94 70-135 Flags o-Terphenyl 45.9 50.0 92 70-135 Lab Batch #: 807128 Sample: 373155-002 S / MS Batch: 1 Matrix:Soil Units: mg/kg Date Analyzed: 05/18/10 16:32 SURROGATE RECOVERY STUDY Lab Batch #: 807128 Sample: 373155-002 S / MS Batch: 1 Matrix:Soil Units: mg/kg Date Analyzed: 05/18/10 16:32 SURROGATE RECOVERY STUDY Flags %R flags %R flags %R flags %R flags %R flags %R <th>ТРН</th> <th>by SW8015 Mod Analytes</th> <th>Amount Found [A]</th> <th>True Amount [B]</th> <th>Recovery %R [D]</th> <th>Control Limits %R</th> <th>Flags</th>	ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl 36.9 49.9 74 70-135 Lab Batch #: 807128 Sample: 373107-010 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 05/18/10 16:01 SURROGATE RECOVERY STUDY Flags Analytes I/A I/B Recovery % Control Limits 1-Chlorooctane 93.7 99.9 94 70-135 0-Terphenyl 45.9 50.0 92 70-135 Lab Batch #: 807128 Sample: 373155-002 S / MS Batch: 1 Matrix:Soil Units: mg/kg Date Analyzed: 05/18/10 16:32 SURROGATE RECOVERY STUDY Flags Matrix: Soil Units: mg/kg Date Analyzed: 05/18/10 16:32 SURROGATE RECOVERY STUDY I-Chlorooctane 93.4 99.6 94 70-135 I-Chlorooctane 93.4 99.6 94 70-135 I-Chlorooctane 93.4 99.6 94 70-135 Lab Batch #: 807128 Sample: 373155-002 SD / MSD Batch: 1 Matrix:Soil Units: mg/kg Date Analyzed	1-Chlorooctane		77.2	99.7	77	70-135	
Lab Batch #: 807128 Sample: 373107-010 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 05/18/10 16:01 SURROGATE RECOVERY STUDY Flags TPH by SW8015 Mod Amount [A] True [B] Recovery %R Control Limits %R Flags 1-Chlorooctane 93.7 99.9 94 70-135 - o-Terphenyl 45.9 50.0 92 70-135 - Lab Batch #: 807128 Sample: 373155-002 S / MS Batch: 1 Matrix:Soil - Units: mg/kg Date Analyzed: 05/18/10 16:32 SURROGATE RECOVERY STUDY -	o-Terphenyl		36.9	49.9	74	70-135	
Units: mg/kg Date Analyzed: 05/18/10 16:01 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True Amount [B] Recovery (P] Control Limits %R Flags 1-Chlorooctane 93.7 99.9 94 70-135 - 0-Terphenyl 45.9 50.0 92 70-135 - Lab Batch #: 807128 Sample: 373155-002 S / MS Batch: 1 Matrix: Soil - TPH by SW8015 Mod Amount Found [A] True Momunt [B] Recovery %R Control Limits %R Flags 1-Chlorooctane 93.4 99.6 94 70-135 - 1-Chlorooctane 93.4 99.6 94 70-135 - 1-Chlorooctane 93.4 99.6 94 70-135 - 0-Terphenyl 42.5 49.8 85 70-135 - Lab Batch #: 807128 Sample: 373155-002 SD / MSD Batch: 1 Matrix:Soil Limits: mg/kg Date Analyzed: 05/18/10 17:02 SURROGATE RECOVERY STUDY - Lab Batch	Lab Batch #: 807128	Sample: 373107-010 / SMP	Batcl	h: Matrix:	Soil	-	
TPH by SW8015 Mod Analytes Amount [A] True Amount [B] True Amount [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctanc 93.7 99.9 94 70-135 - o-Terphenyl 45.9 50.0 92 70-135 - Lab Batch #; 807128 Sample: 373155-002 S / MS Batch: 1 Matrix; Soil - TPH by SW8015 Mod Amount [A] True Amount [A] Amount [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctanc 93.4 99.6 94 70-135 - 1-Chlorooctanc 93.4 99.6 94 70-135 - 1-Chlorooctanc 93.4 99.6 94 70-135 - 0-Terphenyl 42.5 49.8 85 70-135 - Lab Batch #; 807128 Sample: 373155-002 SD / MSD Batch: 1 Matrix; Soil - Units: mg/kg Date Analyzed: 05/18/10 17:02 SURROGATE RECOVERY STUDY - - TPH by SW8015 Mod [A)	Units: mg/kg	Date Analyzed: 05/18/10 16:01	SU	RROGATE RI	ECOVERY	STUDY	
Indigets Image (Second Control Contrel Control Control Contrel Control Control Control	ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R (D)	Control Limits %R	Flags
Interview John State John Sta	1-Chlorooctanc	Analytes	03.7	00.0	0/	70-135	
Lab Batch #: 807128 Sample: 373155-002 S / MS Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 05/18/10 16:32 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount Found [A] True (B] Recovery %R (D] Control Limits %R Flags 1-Chlorooctanc 93.4 99.6 94 70-135 - o-Terphenyl 42.5 49.8 85 70-135 - Lab Batch #: 807128 Sample: 373155-002 SD / MSD Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 05/18/10 17:02 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount Found [A] True Amount [B] Matrix: Soil Units: mg/kg Date Analyzed: 05/18/10 17:02 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True Amount [A] Recovery %R [D] Control Limits %R 1-Chlorooctanc 93.8 100 94 70-135 o-Terphenyl 42.5 50.0 85 70-135	o-Terphenyl		45.9	50.0	92	70-135	
Units:Date Analyzed:05/18/1016:32SURROGATE RECOVERY STUDYTPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RFlags1-Chlorooctanc93.499.69470-135o-Terphenyl42.549.88570-135Lab Batch #: 807128Sample:373155-002 SD / MSDBatch:1Matrix:SoilUnits:mg/kgDate Analyzed:05/18/1017:02SURROGATE RECOVERY STUDYTPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %R (D)Control Limits %RI-Chlorooctanc93.81009470-135o-Terphenyl42.550.08570-135	Lab Batch #: 807128	Sample: 373155-002 S / MS	Batel	h: 1 Matrix:	Soil	I	
TPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RFlags1-Chlorooctanc93.499.69470-135-o-Terphenyl42.549.88570-135-Lab Batch #: 807128Sample: 373155-002 SD / MSDBatch:1Matrix:Soil-Units: mg/kgDate Analyzed: 05/18/10 17:02SURROGATE RECOVERY STUDY-TPH by SW8015 ModAmount [A]True AnalytesRecovery %R (D)Control Limits %RFlags1-Chlorooctanc93.81009470-135-0-Terphenyl42.550.08570-135-	Units: mg/kg	Date Analyzed: 05/18/10 16:32	SU	RROGATE RI	ECOVERY	STUDY	
Analytes I ID I 1-Chlorooctane 93.4 99.6 94 70-135 o-Terphenyl 42.5 49.8 85 70-135 Lab Batch #: 807128 Sample: 373155-002 SD / MSD Batch: 1 Matrix: Soil Lunits: mg/kg Date Analyzed: 05/18/10 17:02 SURROGATE RECOVERY ST UDY TPH by SW8015 Mod Amount [A] True [B] Recovery %R Flags 1-Chlorooctane 93.8 100 94 70-135 o-Terphenyl 42.5 50.0 85 70-135	ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1-Chlorooctane 93.4 99.6 94 70-135 o-Terphenyl 42.5 49.8 85 70-135 Lab Batch #: 807128 Sample: 373155-002 SD / MSD Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 05/18/10 17:02 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctane 93.8 100 94 70-135		Analytes			[D]		
o-Terphenyl 42.5 49.8 85 70-135 Lab Batch #: 807128 Sample: 373155-002 SD / MSD Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 05/18/10 17:02 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True [A] Recovery %R [D] Control Limits %R Flags 1-Chlorooctanc 93.8 100 94 70-135	1-Chlorooctane		93.4	99.6	94	70-135	
Lab Batch #: 807128 Sample: 373155-002 SD / MSD Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 05/18/10 17:02 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctanc 93.8 100 94 70-135 – o-Terphenyl 42.5 50.0 85 70-135 –	o-Tcrphenyl		42.5	49.8	85	70-135	
Units: mg/kgDate Analyzed: 05/18/10 17:02SURROGATERECOVERY STUDYTPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RFlags1-Chlorooctanc93.81009470-135o-Terphenyl42.550.08570-135	Lab Batch #: 807128	Sample: 373155-002 SD / N	ASD Bate	h: 1 Matrix:	:Soil		
TPH by SW8015 Mod AnalytesAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %R [D]Flags1-Chlorooctanc93.81009470-135o-Terphenyl42.550.08570-135	Units: mg/kg	Date Analyzed: 05/18/10 17:02	SU.	RROGATE RI	ECOVERY	STUDY	
I-Chlorooctanc 93.8 100 94 70-135 o-Terphenyl 42.5 50.0 85 70-135	ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl 42.5 50.0 85 70-135	1-Chlorooctanc	-	93.8	100	94	70-135	
	o-Terphenyl		42.5	50.0	85	70-135	

- * Surrogate outside of Laboratory QC limits
 ** 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.





Work Order #: 373107							Pro	ject ID: 2	2008-210		
Analyst: ASA	Da	ate Prepar	ed: 05/19/201	0			Date A	nalyzed: (5/20/2010		
Lab Batch ID: 807733 Sample: 563967-1-	3KS	Batc	n #: 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	PIKE DUPI	LICATE	RECOVI	ERY STUD	Ŷ	
BTEX by EPA 8021 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Btank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0991	99	0.1	0.1025	103	3	70-130	35	
Toluene	ND	0.1000	0.0962	96	0.1	0.1005	101	4	70-130	35	
Ethylbenzene	ND	0.1000	0.0956	96	0.1	0.1011	101	6	71-129	35	
m,p-Xylenes	ND	0.2000	0.1882	94	0.2	0.2007	100	6	70-135	35	
o-Xylene	ND	0.1000	0.0947	95	0.1	0.1008	101	6	71-133	35	
Analyst: ASA	Da	ate Prepar	ed: 05/21/201	0			Date A	nalyzed: (5/21/2010		
Lab Batch ID: 807744 Sample: 563977-1-1	BKS	Bate	n#: 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	PIKE DUPI	LICATE	RECOVI	ERY STUD	Ŷ	
BTEX by EPA 8021	Blank Sample Result [A]	Spike Added (B)	Blank Spike Result	Blank Spike %R IDI	Spike Added [E]	Blank Spike Duplicate Result IFl	Blk. Spk Dup. %R G	RPD %	Control Limits %R	Control Limits %RPD	Flag
	1	[]	101	[]	[~]	[-]	1 1			1	
Benzene	ND	0.1000	0.1014	101	0.1	0.1001	100	1	70-130	35	
Benzene Toluene	ND ND	0.1000	0.1014	101 100	0.1	0.1001	100	1	70-130 70-130	35 35	
Benzene Toluene Ethylbenzene	ND ND ND	0.1000 0.1000 0.1000	0.1014 0.0998 0.1009	101 100 101	0.1 0.1 0.1	0.1001 0.0988 0.1004	100 99 100	1 1 0	70-130 70-130 71-129	35 35 35	
Benzene Toluene Ethylbenzene m,p-Xylenes	ND ND ND ND	0.1000 0.1000 0.1000 0.2000	0.1014 0.0998 0.1009 0.2016	101 100 101 101	0.1 0.1 0.1 0.2	0.1001 0.0988 0.1004 0.2009	100 99 100 100	1 1 0 0	70-130 70-130 71-129 70-135	35 35 35 35 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





Work Order #: 373107 Analyst: BEV Lab Batch ID: 807128	Sample: 563591-1-BF	Date Prepared: 05/17/2010 Project ID: 2008-210 nple: 563591-1-BKS Batch #: 1 Matrix: Solid										
Units: mg/kg			BLAN	K/BLANK S	PIKE / H	BLANK S	PIKE DUPI	ICATE	RECOVE	CRY STUD	Y	
TPH by SW8015	5 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Result (F)	Bik. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes			[¤]	[C]	נטן	[E]	Kesuk [F]	[G]				
C6-C12 Gasoline Range Hydrocart	oons	ND	999	992	99	1000	988	99	0	70-135	35	
C12-C28 Diesel Range Hydrocarbo	ans	ND	999	815	82	1000	717	72	13	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





Work Order #: 373107	Project ID: 2008-210										
Lab Batch ID: 807733 (Date Analyzed: 05/21/2010)C- Sample ID: Date Prepared:	372870 05/19/2	-001 S 010	Ba An	tch #: alyst:	l Matri ASA	x: Soil				
Reporting Units: mg/kg		М	ATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
BTEX by EPA 8021	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
Benzene	ND	0.1040	0.0492	47	0.1040	0.0530	51	7	70-130	35	X
Toluene	ND	0.1040	0.0451	43	0.1040	0.0488	47	8	70-130	35	X
Ethylbenzene	0.0014	0.1040	0.0370	34	0.1040	0.0445	41	18	71-129	35	X
m,p-Xylenes	0.0031	0.2081	0.0372	16	0.2081	0.0406	18	9	70-135	35	X
o-Xylene	0.0023	0.1040	0.0551	51	0.1040	0.0600	55	9	71-133	35	X
Lab Batch ID: 807128 ()C- Sample ID:	373155	-002 S	Ba	tch #:	1 Matrix	x: Soil				
Date Analyzed: 05/18/2010	Date Prepared:	05/17/20	010	An	alyst:	BEV					
Reporting Units: mg/kg		M	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH by SW8015 Mod 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
C6-C12 Gasoline Range Hydrocarbons	40.5	1240	1320	103	1240	1300	102	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	42.3	1240	1040	80	1240	1240	97	18	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative 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



Sample Duplicate Recovery



Project Name: Scharb Station Overflow

Work Order #: 373107

Lab Batch #: 807744			Project I	D: 2008-210)
Date Analyzed: 05/22/2010	Date Prepared: 05/21/2010) Ana	lyst:ASA		
QC- Sample ID: 372881-006 D	Batch #: 1	Ma	trix: Soil		
Reporting Units: mg/kg	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
BTEX by EPA 8021 Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Benzene	ND	ND	NC	35	
Toluene	5.107	5.352	5	35	
Ethylbenzene	5.314	5.711	7	35	
m,p-Xylenes	52.63	58.72	11	35	
o-Xylene	14.91	17.14	14	35	
Lab Batch #: 806913 Date Analyzed: 05/17/2010 QC- Sample ID: 373107-001 D	Date Prepared: 05/17/2010 Batch #: 1) Ana Ma	llyst:JLG trix: Soil		
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	9.63	10.1	4	20	

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

Environmen	tal Lab of T	exa	S					12 Oc	600 less	Wes a, Te	Ch st I-2 axas	(AJN 20 Ea 5 797	0F st 65	CU	STOL	DY R	RECO	ori) A !	YD .	AN/	ALY: Phor Fax:	S/S 10: 4	RE 432 432	QUI -563 -563	287 -180 -171	0 3			
Project Manager:	Camille Bryant			PAGE 01 O	F_01										-	Pi	rojec	t Na	me:	Sc	har	b St	atic	<u>on (</u>	<u>)vei</u>	flov	<u>N</u>			
Company Name	Basin Environmental S	ervice T	echnol	ogies, LLC											-		Pi	roje	:t#:	20	0 8- 2	10	_			_				
Company Address	: 2800 Plains Hwy			<u></u>	· · · · · · · · · · · · · · · · · · ·			_							~-		Proj	ect (.oc :	Lee	i Co	unty	NN	1				~		
City/State/Zip:	Lovington, NM 88260																	ρ	0#:	PA	A - J	. Hei	nry							
Telephone No:	(575) 441-2244				Fax No	:	(5	75) 3	96-1	429					 F	Repo	rt Fo	r ma	t:	X	Star	ndaro	1 I		П т	RRF	>	С] NP	DES
Sampler Signature	CHDE	·			e-mail	l:	C.	star	ley	@t	Jas	iner	٦v.c	om	-															
(lab use only)			·				-			******							F			Tr	CLP	Ana	alyze	e Fo		$\overline{\mathbf{T}}$			_	Π
ORDER #: 573	07								Pros	wate	on & r	t d Ce	Main		TM	atrix				TO	TAL:	1	1	4	X		ł			72 hrs
(lab use oniy)		aing Depth	J Depth	Sampled	Sampled	arad	of Containers			0A X 2)			A AH)	Specify)	king Water SL=Shodge	cundwrater S=Sold/Solid Potable Specify Other	418.1 (8015) 8015	TX 1005 TX 1006	(Ca, Mg. Na, K)	(Ci. SO4, Alkalinity)	SP / CEC	As Ag Ba Cd Cr Pb Hg S		attes	02 HB/G 00 or BTEX 8280		ė	ind Filther Test	tes E 300	TAT (Pre-Schedule) 24, 4
FIE FIE	LD CODE	Begin	Ending	Date	Time	Fleid Fill	Total #.	<u>8</u>	⁶ ONH	Ę	r, so,	NaOH	Nore	Other (DW⊨Drin	GW = Gr NP=Non-	ТРН:	Нdг	Cations	Anians (SAR / E	Metals:	Votatilen	Semivo	BTEX	NOR	PAH	EPA Pa	Chlorid	RUSH
-001	NSW-1	2'		5/14/2010	1400		1	x		\neg	_				s	ioil	X					_	\square		хĻ	\bot	L	L	\square	П
-002	ESW-1	3'		5/14/2010	1405	₋	1	X							<u>s</u>	oil	X								×	╇	╞		\square	\vdash
-007	NSW-2	3.5'		5/14/2010	1410		1	X		+	-+	-+-	+-	┢	s	oll	X	\vdash			-	_	4	-	<u>×</u>	┾	╇	+	+-	┝─┼
- 004	<u></u>	3		5/14/2010	1415	+	1	Ě		-+	-+	-+-	╋	+			X				-+	┽	+	╋	<u>×</u> +	╇	┿	+	$\left\{ -\right\}$	- +
-023	3377-1	25		5/14/2010	1420	┢╴		<u>↓</u>			-+	-+-	╋	+					-		-+	+	+	+	ᠿ	╋	╀	+	\vdash	┝╼┼╴
-006	<u>VSW-2</u>	2'		5/14/2010	1430	╈		Î		\rightarrow	-+	-+	+	┼		nil	Î				-	+	+	+	}	+	+	╉──	\square	╞┼┼
-008	iloor-1	2.5		5/14/2010	1435	┢	1	Îx		\neg	-+	+	1-	\uparrow	s	oil	Îx				\uparrow		╋	T	x	+	\uparrow	\uparrow		
~0% I	loor-2	4'		5/14/2010	1440		1	x						Τ	s	oil	x								x	T				
~010 8	loor-3	3.5'		5/14/2010	1445		1	x							S	oil	X								x	\Box	L			
Special Instructions:																			Lab Can VOC	orat Dis F	ory Con ree c	Com	mei ie it ads;	nts: Iteic bace	1 17	i i i i i i i i i i i i i i i i i i i	S.F	8		N N
Relinquished by:	Date	ти 2 // / Тіг	ne 4 me	Received by:										D: D:	rte ate		Time	e 	Cus Cus San	tody tody nple by S by C	in co sea Stati Han ampl ourie	d Del er/Cl	con con iver ient l	tain ed Rep iPS	er(s) P(s) P D.	38% 38%	Fe	E Com Co	Sin Lon	N N N N
Relinquished by:	Date	Tir	ne	Received by ELB	Bar	Ń	K	D		· · · ·			1	A.	# * }/[($\overline{\mathbf{h}}$	Time F.C	5	Tem	pera	ature	Upo	n Re	ecei	pt:		1.0	ن 		°C

Page 19 of 20

Final Ver. 1.000

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:	Bain E	Niromenta)
Date/ Time:	5/15/10	11:15
Lab ID # :		3107
Initials:	JG	

 (\cdot)

Sample Receipt Checklist

#1	Temperature of container/ cooler?	Yee	No	1,0 °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?	(res)	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Kei	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?	(res	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?	Ces	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?	(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)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	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	nceed with analysis sampling event	

Analytical Report 375792

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Scharb Station Overflow

SRS # 2008-210

09-JUN-10





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295)



09-JUN-10



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

Reference: XENCO Report No: 375792 Scharb Station Overflow Project Address: Lea County, NM

Jason Henry:

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 375792. 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. 375792 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



Sample Cross Reference 375792



PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Station Overflow

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
W-SW-1A	S	Jun-07-10 09:00		375792-001
E-SW-1A	S	Jun-07-10 09:10		375792-002
Floor-2A	S	Jun-07-10 09:15		375792-003
Floor-3A	S	Jun-07-10 09:25		375792-004



Client Name: PLAINS ALL AMERICAN EH&S Project Name: Scharb Station Overflow



 Project ID:
 SRS # 2008-210

 Work Order Number:
 375792

Report Date: 09-JUN-10 Date Received: 06/07/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-809631 Percent Moisture None

Batch: LBA-809635 Percent Moisture AD2216A Batch 809635, Percent Moisture RPD is outside the QC limit. This is most likely due to sample non-homogeneity. Samples affected are: 375792-003, -004.

Batch: LBA-809722 TPH by SW8015 Mod SW8015MOD_NM

Batch 809722, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike Duplicate. Samples affected are: 375792-003, -004, -002, -001. The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

Batch: LBA-809723 BTEX by EPA 8021 SW8021BM

Batch 809723, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 375792-002.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits



Project Id: SRS # 2008-210

Contact: Jason Henry

Certificate of Analysis Summary 375792 PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Scharb Station Overflow



Date Received in Lab: Mon Jun-07-10 12:25 pm

roject Location: Lea County, NM								Report	Date:	09-ЛИМ-10	
								Project Mar	ager:	Brent Barron, II	
	Lab Id:	375792-(001	375792-0	02	375792-0	03	375792-0	04		
Analysis Paguastad	Field Id:	W-SW-1	A	E-SW-1	A	Floor-2/	A	Floor-3A	4		
Analysis Kequestea	Depth:										
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Jun-07-10 ()9:00	Jun-07-10 ()9:10	Jun-07-10 0	9:15	Jun-07-10 0	9:25		
BTEX by EPA 8021	Extracted:			Jun-08-10 ()7:30						
	Analyzed:			Jun-08-10 1	17:12						
	Units/RL:			mg/kg	RL						
Benzene				ND	0.0010	· · · · · · · · · · · · · · · · · · ·	• •			1	
Toluene				ND	0.0021						
Ethylbenzene				ND	0.0010					1	
m,p-Xylenes				ND	0.0021						
o-Xylene				ND	0.0010						
Xylenes, Total	_			ND	0.0010						
Total BTEX				ND	0.0010						
Percent Moisture	Extracted:										
	Analyzed:	Jun-07-10	17:00	Jun-07-10 J	17:00	Jun-08-10 1	0:32	Jun-08-10 1	0:32		
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		5.30	1.00	3.86	1.00	6.49	1.00	10.5	1.00		
TPH by SW8015 Mod	Extracted:	Jun-08-10	09:00	Jun-08-10 ()9:00	Jun-08-10 0	9:00	Jun-08-10 0	9:00		
	Analyzed:	Jun-08-10	15:07	Jun-08-10 1	un-08-10 15:35 Jun-08-10 16:03 Jun-				6:31		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		ND	15.9	ND	15.6	561	16.0	118	16.8		
C12-C28 Diesel Range Hydrocarbons		90.0	15.9	767	15.6	1580	16.0	781	16.8		
C28-C35 Oil Range Hydrocarbons		ND	15.9	93.1	15.6	108	16.0	66.1	16.8		
Total TPH		90.0	15.9	860	15.6	2249	16.0	965	16.8		10

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 judgment of XENCO Laboratories. XENCO Laboratories assumes no 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 - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II

Odessa Laboratory Manager

Final Ver. 1.000





- 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 and above the SQL.
- 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.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- **BRL** Below Reporting Limit.
- RL Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Corpus Christi - Midland/O	dessa - Tampa - Miam	i - Latin America
	Phone	Fax
4143 Greenbriar Dr, Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North 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
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Project Name: Scharb Station Overflow

Work Orders : 375792, Lab Batch #: 809723	Vork Orders: 375792, Project ID: SRS # 2008-210 Lab Batch #: 809723 Sample: 565180-1-BKS / BKS Batch: Matrix: Solid										
Units: mg/kg	Date Analyzed: 06/08/10 08:32	SU	RROGATE RE	COVERY	STUDY						
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
	Analytes			נטן							
1,4-Difluorobenzene		0.0338	0.0300	113	80-120						
4-Bromofluorobenzene		0.0324	80-120								
Lab Batch #: 809723	Sample: 565180-1-BLK / BLK Batch: Matrix: Solid										
Units: mg/kg	Date Analyzed: 06/08/10 09:38	/08/10 09:38 SURROGATE RECOVERY STUDY									
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluorobenzene	·	0.0272	0.0300	91	80-120						
4-Bromofluorobenzene		0.0317	0.0300	106	80-120						
Lah Batch #: 809723	Sample: 375775-002 S / M	S Batel	i: 1 Matrix:Soil								
Units: mg/kg	Date Analyzed: 06/08/10 10:32	SU	RROGATE RE	COVERY	STUDY						
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1,4-Difluorobenzene	•	0.0292	0.0300	97	80-120						
4-Bromofluorobenzene		0.0343	0.0300	114	80-120						
Lab Batch #: 809723	Sample: 375775-002 SD / N	MSD Batcl	h: ¹ Matrix:	Soil	1						
Units: mg/kg	Date Analyzed: 06/08/10 10:54	SU	RROGATE RE	COVERY	STUDY						
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags					
	Analytes			ַען							
I,4-Difluorobenzene		0.0301	0.0300	100	80-120						
4-Bromofluorobenzene		0.0301	0.0300	100	80-120						
Lab Batch #: 809723	Sample: 375792-002 / SMF	Bate	h: ¹ Matrix:	Soil							
Units: mg/kg	Date Analyzed: 06/08/10 17:12	SU	RROGATE RI	ECOVERY	STUDY						
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1.4-Difluorobenzene		0.0207	0.0200	00	80.120	L					
1,4-Dilluorobenzene		0.0297	0.0300	99	80-120						

* Surrogate outside of Laboratory QC limits

** 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.

,



Project Name: Scharb Station Overflow

Work Orders : 375792	2, Sample: 565181-1-BKS/B	KS Batel	Project II): SRS # 200 : Solid	8-210									
Units: mg/kg	Date Analyzed: 06/08/10 10:59	SU.	RROGATE RI	ECOVERY	STUDY									
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags								
	Analytes													
1-Chlorooctane		126	100	126	70-135									
o-Terphenyl		49.9	50.2	99	70-135									
Lab Batch #: 809722	Sample: 565181-1-BSD / B	SD Bate	h: 1 Matrix	Solid										
Units: mg/kg	Date Analyzed: 06/08/10 11:26	SU	SURROGATE RECOVERY STUDY											
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
1-Chlorooctanc		120	99.6	120	70-135									
o-Terphenyl		47.9	49.8	96	70-135									
Lab Batch #: 809722	Sample: 565181-1-BLK / B	LK Batel	h: 1 Matrix:	Solid										
Units: mg/kg	Date Analyzed: 06/08/10 11:54	SU	RROGATE RI	ECOVERY	STUDY									
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
I-Chlorooctanc		108	101	107	70-135									
o-Terphenyl		53.9	50.3	107	70-135									
Lab Batch #: 809722	Sample: 375792-001 / SMF	Batc	h: 1 Matrix	Soil	t	,								
Units: mg/kg	Date Analyzed: 06/08/10 15:07	SU	RROGATE RI	ECOVERY	STUDY									
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
1 Chlaraastana		05.5	100	(~)	70.125									
o-Terphenyl		95.5	50.2	96	70-135									
	2 275702 002 / 014	47.0	50.2	0.11	70-155									
Lab Batch #: 809722	Sample: 3/3/92-002/ SMF	Batel	h: I Matrix DDOCATE DI	SOIL	STUDV									
Units: mg/kg	Date Analyzed: 06/08/10 15:35	30												
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
1-Chlorooctane		85.2	99.8	85	70-135									
o-Terphenyl		42.5	49.9	85	70-135									

* Surrogate outside of Laboratory QC limits

** 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.



Project Name: Scharb Station Overflow

Work Orders: 375792	2,		Project II): SRS # 200)8-210					
Lab Batch #: 809722	Sample: 375792-003 / SMP	Batch: 1 Matrix: Soil								
Units: mg/kg	Date Analyzed: 06/08/10 16:03	SU/	RROGATE RF	ECOVERY ?	STUDY	· · · · ·				
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctanc	-	112	100	112	70-135	[
o-Terphenyl		46.6	50.0	93	70-135	I				
Lab Batch #: 809722	Sample: 375792-004 / SMP	Bate	h: 1 Matrix	: Soil	·					
Units: mg/kg	Date Analyzed: 06/08/10 16:31	SU	RROGATE RF	ECOVERY (STUDY					
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctane		103	100	70-135	(
o-Terphenyl		51.6	51.6 50.2 103 70							
Lab Batch #: 809722	Sample: 375792-001 S / MS	3 Bate!	h: 1 Matrix	: Soil	<u> </u>					
Units: mg/kg	Date Analyzed: 06/08/10 18:49	SU	RROGATE RF	COVERY f	STUDY					
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctane	-	117	99.7	117	70-135	1				
o-Terphenyl		46.9	49.9	94	70-135	1				
Lab Batch #: 809722	Sample: 375792-001 SD / N	ASD Batc!	h: 1 Matrix	:Soil	<u>k</u>					
Units: mg/kg	Date Analyzed: 06/08/10 19:17	SUI	RROGATE RF	COVERY 5	STUDY					
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctanc		122	100	122	70-135	1				
o-Terphenyl		48.5 50.2 97 70-135								

* Surrogate outside of Laboratory QC limits
 ** 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.

,





Work Order #: 375792		Pr		SRS # 2	008-210					
Lab Batch #: 809723	Sample: 565180-	-1-BKS	Matrix:	Solid						
Date Analyzed: 06/08/2010	Date Prepared: 06/08/20	Date Prepared: 06/08/2010 Analyst: ASA								
Reporting Units: mg/kg	Batch #: 1	BLANK /I	BLANK SPI	COVERY STUDY						
BTEX by EPA 8021	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags				
			[~]	[2]						
Benzene	ND	0.1000	0.0929	93	70-130					
Toluene	ND	0.1000	0.1031	103	70-130					
Ethylbenzene	ND	0.1000	0.1014	101	71-129					
m,p-Xylenes	ND	0.2000	0.2200	110	70-135					
o-Xylene	ND	0.1000	0.1096	110	71-133					

Blank Spike Recovery [D] = 100*[C]/[B] All results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit





Work Order #: 375792 Analyst: BEV Lab Batch ID: 809722	Sample: 565181-1-BKS	Da	ite Prepar Batcl	red: 06/08/201 h #: 1	0			Pro Date A	ject ID: S nalyzed: () Matrix: S	SRS # 2008 06/08/2010 Solid	-210			
Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW80	15 Mod Sar	Blank mpte Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag		
	-													
Co-C12 Gasoline Range Hydroc	arbons	ND	1000	1130	113	996	1080	108	5	70-135	35			
C12-C28 Diesel Range Hydroca	rbons	ND	1000	1070	107	996 944 95 13 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





Work Order # : 375792	Project ID: SRS # 2008-210										
Lab Batch ID: 809723 Date Analyzed: 06/08/2010	QC- Sample ID: Date Prepared:	375775 06/08/2	-002 S 010	Ba An	itch #: alyst:	l Matri ASA	x: Soil				
Reporting Units: mg/kg		Ň	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
BTEX by EPA 8021	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	· .	[D]	[E]		[G]				
Benzene	ND	0.1163	0.0551	47	0.1156	0.0589	51	7	70-130	35	X
Toluene	ND	0.1163	0.0699	60	0.1156	0.0680	59	3	70-130	35	X
Ethylbenzene	ND	0.1163	0.0708	61	0.1156	0.0719	62	2	71-129	35	X
m,p-Xylenes	ND	0.2327	0.1513	65	0.2313	0.1511	65	0	70-135	35	X
o-Xylene	ND	0.1163	0.0740	64	0.1156	0.0737	64	0	71-133	35	Х
Lab Batch ID: 809722 Date Analyzed: 06/08/2010	QC- Sample ID: Date Prepared:	375792 06/08/2	-001 S 010	Ba An	itch #: alyst:	1 Matri BEV	x: Soil				
Reporting Units: mg/kg		Ň	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH by SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
C6-C12 Gasoline Range Hydrocarbons	ND	1050	1090	104	1060	1140	108	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	90.0	1050	1050	91	1060	766	64	31	70-135	35	Х

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



Sample Duplicate Recovery



Project Name: Scharb Station Overflow

Work Order #: 375792

Lab Batch #: 809631			Project I	D: SRS # 20	08-210					
Date Analyzed: 06/07/2010 Date Prepa	red:06/07/2010) Anal	yst:JLG							
QC- Sample ID: 375647-001 D Batc	h#: 1	Mat	Matrix: Soil							
Reporting Units: %	SAMPLE / SAMPLE DUPLICAT									
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag					
Analyte		[B]								
Percent Moisture	11.6	11.6	0	20						
Lab Batch #: 809635										
Date Analyzed: 06/08/2010 Date Prepa	red:06/08/2010) Anal	lyst:JLG							
QC- Sample ID: 375792-003 D Bate	h#: 1	Mat	rix: Soil							
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY					
Percent Moisture	Parent Sample	Sample		Control						
Analyte	Result [A]	Duplicate Result [B]	RPD	Limits %RPD	Flag					

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

Env	vironment	al La	b of T	exa	IS					1: 0	2600 Ides:) We sa, '	CH est I-2 Texa:	'A/N 20 E 5 79	/ OF ast 765	CU	STO	DY	REC	OR	Ð A	ND .	AN. F	4L y Phor Fax	/S/: ne: l:	S R 432 432	'EQ 2-56 2-58	UES 3-18 3-17	ST 100 /13				
	Project Manager:	Camilie Br	yant		·······													P	roje	et Na	ame:	Sc	har	b Si	tati	ion '	N0	erfic	wc		·		
	Company Name	Basin Envi	ronmental Co	nsultin	ig, LLC								·····						P	roje	ct #:	SR	S#	200	8-2	210							
	Company Address:	P. O. Box 3	81																Pro	ect	Loc:	Lea	Co	inty	, NI	M							
	City/State/Zip:	Lovington,	NM 88260																	P	0#:	PA	\-J.	Hen	ry_								
	Telephone No:	(575)605-72	210				Fax No	:	(50	05)	<u>396-</u>	142	9					Repo	rt Fo	yrma	t:	X	Star	Idaro	d			TRR	P	[] NF	DE	5
	Sampler Signature:	EL-	2				e-mail	:	ci	bry	yan	t@	basi	in-c	хоп	sulti	ing.	.com	1														
(lab use	only)]								_								F			Τ	LP:	Ana	alyz	₂e Fo	or:		<u> </u>	<u> </u>		Ŧ	
ORDE		792								F	rese	rvati	on &	of	Conta	iners	T -1	Matrix	L.	7		TOT	AL:	-	コ		<u> </u>					12 8	1
	FIEL W- E- File File File File File File File File	LD CODE SW-1A SW-1A SW-1A		Beginning Depth	Ending Depth	Page 3-Jun-10 7-Jun-10 7-Jun-10	900 9:10 9:15	Field Fittered	Total #. of Containers	x x x	HNO3	Ŭ ,	H ₃ SO ₄	NaOH	Na ₂ S ₂ O ₃	Other (Specify)	DW-Drinking Water SL-Studg	IOS CW - Groundwater 5-SolySol	XXX TPH: 418.1 Control and 1000	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Aritoria (CI, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg	Volaties	Semivolatiles	× BIEX 80218503000 BIEX 82	RCI	N.O.R.M.			RUSH TAT (Pre-Schedule) 24,	🗙 🗶 🗶 Standard TAT 4 DAY
04	<u> </u>	por-3A				7-Jun-10	9:25	+	1	ľ		┢	╂┼	╉	╉	╋	╞	Soil	ť	 		+	┽	+	┥	╉	+	┽	╉	╇	╇	\vdash	Ă
																										<u> </u>		→ → →	+				
				<u>├</u> ─			····	\uparrow	1-	F	t	\vdash	$\uparrow \uparrow$	+	┽	╈	\uparrow		╋	┢			┽	+	+		┽	┽	+	╋	╀╼	Н	\neg
Special	nstructions:														T	<u> </u>			Γ		Lab	orat		Com		inte:		I ®®		I Q	口溪		×
Relinquis Relinquis	hed by:		Date 6/7/2010 Date		me 25 me	Received by:		 							Ţ	Ð	ate ate		Tim	8	Leb Cus Cui San	tody tody tody tole by Si by C	sea land impl ourle	s of De er/Ci r?	live lient	ntair red t Rat UPS	p, ?	») ») Эн	Fi fi	P C C C C C C C C C C C C C C C C C C C	Lor		ar
Relinquis	hed by:		Date		πe	Hecorged by ELC	ua d	Ø	M	2					4	,.7	ate .	0	12	25	Төл	iper:	0° ture	Upt	n F	tece	> xipt:		Ч	ي.	2	•c	

Ξ.



XENCO Laboratories Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist											
Document No.: SYS-SRC											
Revision/Date: No. 01, 5/2	7/2010										
Effective Date: 6/1/2010	Page 1 of 1										

·. ,

Prelogin / Nonconformance Report - Sample Log-In

Client: P	basin Env.	Plains	
Date/Time:	6.7.10	12:25	
Lab ID # :	3757	92	
Initials:	A	۲	

Sample Receipt Checklist

1. Samples on ice?	Blue	Water	No	
2. Shipping container in good condition?	(Yes	No	None	
3. Custody seals intact on shipping container (cooler) and oottles	Yes	No	N/A	
4. Chain of Custody present?	(Ver	No		
5. Sample instructions complete on chain of custody?	Yee	No		
6. Any missing / extra samples?	Yes	No		
7. Chain of custody signed when relinquished / received?	Yee	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	Yes	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Tes)	No		
12. Samples properly preserved?	(Yes	No	N/A	
13. Sample container intact?	Yeg	No		
14. Sufficient sample amount for indicated test(s)?	(Ver	No		
15. All samples received within sufficient hold time?	<u>ve</u>	No		
16. Subcontract of sample(s)?	Yes	No	(N/A)	
17. VOC sample have zero head space?	Yes	No	N/A	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.	Cooler 4 I	No.	Cooler 5 No.	
ibs 4.6 °C ibs °C ibs	°C Ib	s °C	lbs	°c

Nonconformance Documentation

Contact:	Contacted by:	Date/Time:	
Regarding:			
Corrective Action Taken	· · · · · · · · · · · · · · · · · · ·		

Check all that apply: DCooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.

, Strangersteinen

Initial and Backup Temperature confirm out of temperature conditions □Client understands and would like to proceed with analysis

Analytical Report 378733

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Scharb Station Overflow

SRS # 2008-210

25-JUN-10





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)



25-JUN-10



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

Reference: XENCO Report No: 378733 Scharb Station Overflow Project Address: Lea County, NM

Jason Henry:

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 378733. 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. 378733 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America





Sample Cross Reference 378733

PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Station Overflow

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor 2 B	S	Jun-21-10 12:30		378733-001





Client Name: PLAINS ALL AMERICAN EH&S Project Name: Scharb Station Overflow



 Project ID:
 SRS # 2008-210

 Work Order Number:
 378733

Report Date: 25-JUN-10 Date Received: 06/24/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-812155 Percent Moisture None

Batch: LBA-812209 TPH by SW8015 Mod None

Project Id: SRS # 2008-210

Certificate of Analysis Summary 378733 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Scharb Station Overflow

Date Received in Lab: Thu Jun-24-10 03:00 pm

Contact: Jason Henry Project Location: Lea County, NM

Report Date: 25-JUN-10

Project Manager: Brent Barron, II

	Lab Id:	378733-001			
Analysis Requested	Field Id:	Floor 2 B			
mutysis Requested	Depth:				
	Matrix:	SOIL			
	Sampled:	Jun-21-10 12:30			
Percent Moisture	Extracted:				
	Analyzed:	Jun-25-10 08:28			
	Units/RL:	% RL			
Percent Moisture		20.6 1.00			
TPH by SW8015 Mod	Extracted:	Jun-24-10 15:00			
	Analyzed:	Jun-25-10 09:27			
	Units/RL:	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		385 18.8			
C12-C28 Diesel Range Hydrocarbons		1600 18.8	 		
C28-C35 Oil Range Hydrocarbons		99.0 18.8			
Total TPH		2084 18.8			

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 judgment of XENCO Laboratories. XENCO Laboratories assumes no 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 - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II

Odessa Laboratory Manager



Flagging Criteria

- 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 and above the SQL.
- 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.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

- **RL** Reporting Limit
- MDL Method Detection Limit
- PQL Practical Quantitation Limit
- * Outside XENCO's scope of NELAC Accreditation.

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Corpus Christi - Midland/Odessa - Tampa - Miami - Latin America

	Phone	Fax
4143 Greenbriar Dr. Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North 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
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Project Name: Scharb Station Overflow

Work Orders : 378733	Sample: 566654-1-BKS / B	KS Patal	Project II): SRS # 200 Solid	8-210	
Units: mg/kg	Date Analyzed: 06/24/10 16:03	SU	RROGATE RI	ECOVERY	STUDY	
ТРН І	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
L Chlorooctano	Anarytes	114	00.9	114	70.135	
o-Ternhenyl		52.6	50.0	105	70-135	
Lab Baseb # \$12200	Samalar 566654 1 BSD / B	SD Batal	he 1 Matrix	Solid		
Lab Batch #: 012209	Sample: 500034-1-63076	SU Batel	RROGATE RI	ECOVERY S	STUDY	
Units: mg/kg	Date Analyzed: 06/24/10 16:30					
ТРН В	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 Chloroostana	Analytes	100	00.7	100	70.125	
o-Terphenyl	· · · · · · · · · · · · · · · · · · ·	50.8	49.9	109	70-135	
		50.0		0.111	10-135	
Lab Batch #: 812209	Sample: 566654-1-BLK / B	LK Bate	h: 1 Matrix	Solid	TUDY	
Units: mg/kg	Date Analyzed: 06/24/10 16:57		RRUGATE RI	LUVERY ;		
ТРН В	oy SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		116	99.9	116	70-135	
o-Terphenyl		55.4	50.0	111	70-135	
Lab Batch #: 812209	Sample: 378733-001 / SMF	Bate	h: 1 Matrix	Soil		
Units: mg/kg	Date Analyzed: 06/25/10 09:27	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		127	00.5	128	70-135	
o-Terphenyl		63.9	49.8	128	70-135	
Lab Batab #1 812209	Sample: 378697-002 S / M	S Bata	h. 1 Matrix	Soil		
Lau Balcu #: 012209	Date Analyzed: 06/25/10 10:01	S Batt	RROGATE R	ECOVERY	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		112	100	112	70-135	
o-Terphenyl		50.6	50.0	101	70-135	

* Surrogate outside of Laboratory QC limits
** 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.



Project Name: Scharb Station Overflow

Work Orders : 378733, Project ID: SRS # 2008-210 Lab Batch #: 812209 Sample: 378697-002 SD / MSD Batch: 1 Matrix: Soil Unite: mg/kg Date Analyzed: 06/25/10 10:28 SURROGATE RECOVERY STUDY						
TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		118	99.9	118	70-135	
o-Terphenyl		52.1	50.0	104	70-135	

* Surrogate outside of Laboratory QC limits

** 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.



BS / BSD Recoveries



Project Name: Scharb Station Overflow

Work Order #: 378733 Analyst: BEV Lab Batch ID: 812209	Sample: 566654-1-BKS	Date Prepared: 06/24/2010 Project ID: SRS # 2 Date Analyzed: 06/24/2010 Date Analyzed: 06/24/2010 64-1-BKS Batch #: 1 Matrix: Solid						SRS # 2008 06/24/2010 Solid	-210			
Units: mg/kg			BLAN	K /BLANK S	PIKE / F	BLANK S	PIKE DUPL	ICATE	RECOVE	ERY STUD	Y	
TPH by SW801: Analytes	5 Mod	Blank mple Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocar	bons	ND	999	1200	120	997	1150	115	4	70-135	35	
C12-C28 Diesel Range Hydrocarb	ons	ND	999	1040	104	997	818	82	24	70-135	35	

ι.

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

and the second second of the second second

Final 1.000



~

Project Name: Scharb Station Overflow



Work Order # : 378733		Project ID: SRS # 2008-210									
Lab Batch ID: 812209 Date Analyzed: 06/25/2010 Reporting Units: mg/kg	QC- Sample ID: Date Prepared:	378697 06/24/2	-002 S 010	Ba An F / MAT	tch #: alyst: BIX SPI	1 Matrix BEV KE DUPLICA	c: Soil	OVERV	STUDY		1
	Parent	10.	Spiked Semple	Spiked		Duplicato	Spilrod		Control	Control	
TPH by SW8015 Mod	Sample	Spike	Result	Sample	Spike	Spiked Sample	Spiked Dup.	RPD	Limits	Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1010	1200	119	1010	1250	124	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1010	1020	101	1010	1010	100	1	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



Sample Duplicate Recovery



Project Name: Scharb Station Overflow

Work Order #: 378733

Lab Batch #: 812155			Project I	D: SRS # 20	08-210
Date Analyzed: 06/25/2010 D	ate Prepared: 06/25/2010	Anal	yst:JLG		
QC- Sample ID: 378692-001 D	Batch #: 1	Mat	rix: Soil		
Reporting Units: %	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Percent Moisture	6.25	6.22	0	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit
Environmental Lab o	of Texas
---------------------	----------

Concerned and the second

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

									12 O	600 des:	We ia, 1	est le Fexa	-20 15 7	East 9765	i								Pho Fa	one: ix:	43 43	2-563 2-56	3-18 3-17	:00 '13				
	Project Manager:	Camille Bryant																Proj	ect 1	iam	»: <u>S</u>	cha	<u>rb :</u>	Stat	ion	Ove	rfic	.				
	Company Name	Basin Environmental C	onsultin	<u>ig, LLC</u>	:					<u> </u>									Proj	ect i	: <u>S</u>	RS	1 20	08-:	210	1						
	Company Address:	P. O. Box 381						_										Pr	'ojec	t Loi	:: <u>Le</u>	a C(oun	ty, N	M							
	City/State/Zip:	Lovington, NM 88260				·														PO #	: <u>P/</u>	<u>W-J</u>	i. He	inry								
	Telephone No:	(575)605-7210				Fax No:		(50	<u>)5) 3</u>	96-	429	}			_	_	Rej	oorti	Forn	at:	X	Sta	anda	ardi		۵·	TRR	P	Ε		PDE	s
	Sampler Signature:	195	-(4	r	b.Tayler)	e-mail:		cj	bry	ant	@	bas	sin-	con	sult	ing	. <u>.co</u>	m						-								_
(lab use	only)	7-1-1	L -		. ()													-			_	TCLP		nalyz	te Fi	or.		T			,	I
ORDER	x#: 378	3733							Pr	eser	vatio	on &	1 of	Cont	alner	T	Matr	x I	<u>6</u>	T	T	TAL:	Ļ	\square	\square	X					8	
LAB # (lab use only)	FIEI	LD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtened	Fotal #. of Containers	8	HNO3	HCI	H _{SO}	HORN	Na ₂ S ₂ O ₃	None Other (Snectiv)	DW-Drinking Water SL-Sluck	CW - Groundwater S-Soll/Sol	NP Non-Potable Specify Oth	TPH: 418.1 8015M 801	Cations (Ca. Mp. Na. K)	Anions (Cl. SO4, Alkalinity)	SAR/ESP/CEC	Metals: As Ag Ba Cd Cr Pb Hg S	Volatiles	Semivolatites	THE REAL PORTEX 828		4.0.R.M.			RUSH TAT (Pre-Schedule) 24.	standard TAT 4 DAY
0	Fl	oar 2B			21-Jun-10	1230		1	x						1	Ī	Sol	Ī	x	Ť	Ì	Ű		Í			<u> </u>			\uparrow	F	X
									L									_					\square	\Box			Ţ	T	\bot			
<u>-</u> -					ļ		┞	\vdash	 						╇	┢		╉	+	┥╌	-		\vdash	\vdash		+	+-	∔	╇	\vdash	\square	┝
<u> </u>		<u> </u>		┠───	<u> </u>			\vdash	┝─	┣		\vdash		┝─╋	╋	┢		╉		┿╌	┢		$\left - \right $	\vdash	-+	-+	╇	╋	┿	╉╌┤	\square	┢─
	·			 			\vdash						·	-+	╋	┢		╉	┽	╉╌	┢		┝┥	┝─╋	-+	╋	┿	╇	+	╋┥	\vdash	⊢
																T		十	╈	ϯ					┈┻	+	+	1	\uparrow	\mathbf{H}	Η	
																		\Box					\Box				I	Ι				
			4												+-	╞			╇	1_	<u> </u>			⊢			┶	╇	\downarrow	\square	\square	
Special	nstructions:			L	ll	Ì			L							L		<u>_</u>	1		bora	tory	Co		enta:							
Relinquis	hed by:	Date GZ4 Date	15. 5:	me Ø	Received by: Received by:	·····								-	0	ate ate		וד דו	me me	5 3 3 3 S S	stod stod mple by S	y sea y sea Har Samp	als o block	in co in co	ntair Red t Rej	ner(s) (8). (7	(1997) 	658 853	CC CC	824) 1980	NN NN N	
Relinquis	ned by:	Date	-	me	Received by ELC	UR DO	Ìn		<u></u>	 _					0 0. 7	ate 4./	0	15	- 0.	Te	by (nper	f 0 t 0	er? e Ut	ا کاح Son F		Di Mot:	HL	. Fe	dex 3.(Loni	a Sta °C	ar



-

the state of the s

1999 AN

XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas

Houston, Miami, Odessa, Philadelphia

Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist Document No.: SYS-SRC Revision/Date: No. 01, 5/27/2010 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client:	Dagin Env 1	Plains
Date/Time:	6.24.10	15:00
Lab ID # :	37813	33
Initials:	- AL	

Sample Receipt Checklist

1. Samples on ice?	Blue	Water	No	
2. Shipping container in good condition?	Yes	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	N/A	
4. Chain of Custody present?	Yes	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	No		
7. Chain of custody signed when relinquished / received?	Yes	No		
8. Chain of custody agrees with sample label(s)?	Yes	No		
9. Container labels legible and intact?	(Yes	No		
10. Sample matrix / properties agree with chain of custody?	<u>(</u>	No		
11. Samples in proper container / bottle?	Tes	No		
12. Samples properly preserved?	Yes	No	N/A	
13. Sample container Intact?	Yes	No		
14. Sufficient sample amount for indicated test(s)?	Yes	No		
15. All samples received within sufficient hold time?	Yes	No		
16. Subcontract of sample(s)?	Yes	No	(NIA)	
17. VOC sample have zero head space?	(es)	No	N/A	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.	Cooler 4 No) .	Cooler 5 No.	
Ibs $3.\varphi$ c ibs °C ibs	°C Ibs	°C	lbs	°C

Nonconformance	Documentation
----------------	---------------

□ Initial and Backup Temperature confirm out of temperature conditions

Client understands and would like to proceed with analysis

Analytical Report 384538

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Scharb Station Overflow

SRS# 2008-210

09-AUG-10



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)



09-AUG-10



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

Reference: XENCO Report No: **384538** Scharb Station Overflow Project Address: Lea County, NM

Jason Henry:

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 384538. 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. 384538 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 Odessa Laboratory Director

> Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



The second s

nelad

Sample Cross Reference 384538

PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Station Overflow

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor 2C	S	Aug-04-10 15:30		384538-001





Client Name: PLAINS ALL AMERICAN EH&S Project Name: Scharb Station Overflow



Project ID:SRS# 2008-210Work Order Number:384538

Report Date: 09-AUG-10 Date Received: 08/05/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-817871 Percent Moisture None

Batch: LBA-817882 TPH by SW8015 Mod None

Project Id: SRS# 2008-210

Contact: Jason Henry

Project Location: Lea County, NM

Certificate of Analysis Summary 384538

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Scharb Station Overflow

Date Received in Lab: Thu Aug-05-10 02:10 pm

Report Date: 09-AUG-10

Project Manager: Brent Barron, II

	Lab Id:	384538-001			
Analysis Requested	Field Id:	Floor 2C			
Anulysis Kequesieu	Depth:				
	Matrix:	SOIL			
	Sampled:	Aug-04-10 15:30			
Percent Moisture	Extracted:				
	Analyzed:	Aug-07-10 09:24			
	Units/RL:	% R1			
Percent Moisture		9.30 1.00)		
TPH by SW8015 Mod	Extracted:	Aug-06-10 13:15			
	Analyzed:	Aug-06-10 23:38			
	Units/RL:	mg/kg RI			
C6-C12 Gasoline Range Hydrocarbons		22.2 16.5	5		
C12-C28 Diesel Range Hydrocarbons		162 16.5	5		
C28-C35 Oil Range Hydrocarbons		ND 16.5	5		
Total TPH		184 16.5	5		

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 judgment of XENCO Laboratories. XENCO Laboratories assumes no 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 - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron Odessa Laboratory Director

Final 1.000



Flagging Criteria

- 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 and above the SQL.
- 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.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

- PQL Practical Quantitation Limit
- * Outside XENCO's scope of NELAC Accreditation.

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Corpus Christi - Midland/Odessa - Tampa - Miami - Latin America

4143 Greenbriar Dr, Stafford, Tx 77477 9701 Harry Hines Blvd , Dallas, TX 75220 5332 Blackberry Drive, San Antonio TX 78238 2505 North Falkenburg Rd, Tampa, FL 33619 5757 NW 158th St, Miami Lakes, FL 33014 12600 West I-20 East, Odessa, TX 79765 842 Cantwell Lane, Corpus Christi, TX 78408 Phone Fax (281) 240-4200 (281) 240-4280 (214) 902 0300 (214) 351-9139 (210) 509-3334 (210) 509-3335 (813) 620-2000 (813) 620-2033 (305) 823-8500 (305) 823-8555 (432) 563-1800 (432) 563-1713 (361) 884-0371 (361) 884-9116

Final 1.000



Form 2 - Surrogate Recoveries

Project Name: Scharb Station Overflow

Units: Date Analyzed: 08/06/10 21:59 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Analytes Image: Control of the second of the	Work Orders : 384538 Lab Batch #: 817882	s, Sample: 570025-1-BKS / B	KS Batcl	Project II h: 1 Matrix): SRS# 200 Solid	8-210	
TPH by SW8015 Mod Analytes Amount Found [A] True Amount [A] True Amount [B] Reevery 708 [D] Control Limits 708 (D] Flags 1-Chlorooctane 120 100 120 70-135 - Lab Batch #: 817882 Sample: 570025-1-BSD / BSD Batch: 1 Matrix: Solid - Units: mg/kg Date Analyzed: 08/06/10 22:19 SURROGATE RECOVERY STUDY - - TPH by SW8015 Mod Analytes Amount Found [A] Amount Found [A] True Amount Found [A] Reevery (D] Control Limits %R Flags 1-Chlorooctane 123 100 123 70-135 - 1-Chlorooctane 123 100 123 70-135 - 1-Chlorooctane 123 100 123 70-135 - 1-trephenyl 57.0 50.2 114 70-135 - 1-trephenyl Sample: 570025-1-BLK / BLK Batch: 1 Matrix: Solid - 1-tab Batch #; 817882 Sample: 384538-001 / SMP Batch: 1 Matrix: Solid - <th>Units: mg/kg</th> <th>Date Analyzed: 08/06/10 21:59</th> <th>SU</th> <th>RROGATE RI</th> <th>ECOVERY</th> <th>STUDY</th> <th></th>	Units: mg/kg	Date Analyzed: 08/06/10 21:59	SU	RROGATE RI	ECOVERY	STUDY	
1-Chlorooctanc 120 100 120 70-135 o-Terphenyl 63.9 50.0 128 70-135 Lab Batch #: 817882 Sample: 570025-1-BSD / BSD Batch: 1 Matrix:Solid Units: mg/kg Date Analyzed: 08/06/10 22:19 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True [A] Recovery [B] Control Limits Fags 1-Chlorooctane 123 100 123 70-135 Imount [A] Recovery [B] Control Limits Fags 0-Terphenyl 57.0 50.2 114 70-135 Imount [A] 70-135 1-Chlorooctane 123 100 123 70-135 Imount [A] Recovery [B] Control Limits Flags 1-Chlorooctane 123 100 123 70-135 Imount [A] Recovery [B] Control Limits Flags 1-Chlorooctane 108 100 108 70-135 Imount [A] Recovery [B] Control Limits Flags 1-Chlorooctane 108 100	ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
e-Terphonyl 63.9 50.0 128 70-135 Lab Batch #: 817882 Sample: 570025-1-BSD / BSD Batch: 1 Matrix: Solid Units: mg/kg Date Analyzed: 08/06/10 22:19 SURROGATE RECOVERY STUDY Control [A] TPH by SW8015 Mod Amount [A] True mount [B] Recovery Strub Control [A] 1-Chlorooctane 123 100 123 70-135 Flags 0-Terphenyl 57.0 50.2 114 70-135 Tense mount [A] Recovery Strub Control [A] 1-Chlorooctane 123 100 123 70-135 Tense mount [A] Recovery Strub Control [A] 1 ab Batch #: 817882 Sample: 570025-1-BLK / BLK Batch: 1 Matrix: Solid Tense mount [A] Recovery Strub Control [A] Flags 1 -Chlorooctane 108 100 106 70-135 Flags Set Recovery Strub Control [A] Set Recovery Strub Control [A] <td>1-Chlorooctane</td> <td>· · · · · · · · · · · · · · · · · · ·</td> <td>120</td> <td>100</td> <td>120</td> <td>70-135</td> <td></td>	1-Chlorooctane	· · · · · · · · · · · · · · · · · · ·	120	100	120	70-135	
Lab Batch #: 817882 Sample: 570025-1-BSD / BSD Batch: 1 Matrix:Solid Units: mg/kg Date Analyzed: 08/06/10 22:19 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True [A] True Amount [A] Control [B] Flags 1-Chlorooctane 123 100 123 70-135 - c-Terphenyl 57.0 57.0 50.2 114 70-135 - Lab Batch #: 817882 Sample: 570025-1-BLK / BLK Batch: 1 Matrix: Solid - Units: mg/kg Date Analyzed: 08/06/10 22:39 SURROGATE RECOVERY STUDY - - TPH by SW8015 Mod Amount [A] True Amount [B] Recovery \$%R Control Linits %R Flags 1-Chlorooctane 108 100 108 70-135 - 1-Chlorooctane 108 100 108 70-135 - 1-Chlorooctane 108/06/10 23:38 SURROGATE RECOVERY STUDY - - Lab Batch #: 817882 Sample: 384538-001 / SMP Batch: 1	o-Terphenyl		63.9	50.0	128	70-135	
Units: mg/kg Date Analyzed: 08/06/10 22:19 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount Found [A] True Amount [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctanc 123 100 123 70-135 - 0-Terphonyl 57.0 50.2 114 70-135 - Lab Batch #: 817882 Sample: 570025-1-BLK / BLK Batch: 1 Matrix:Solid - Units: mg/kg Date Analyzed: 08/06/10 22:39 SURROGATE RECOVERY STUDY - - Lab Batch #: 817882 Sample: 384538-001 / SMP Amount [A] True Amount [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctanc 108 100 108 70-135 - 1-Chlorooctanc 108 100 108 70-135 - Lab Batch #: 817882 Sample: 384538-001 / SMP Batch: 1 Matrix:Soil - Luints: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE RECOVERY STUDY - - I-Chlorooctanc 108 100	Lab Batch #: 817882	Sample: 570025-1-BSD / B	SD Batel	h: l Matrix	Solid		
TPH by SW8015 Mod Analytes Amount Found [A] True Amount [B] Recovery %R (D) Control Limits %R Flags %R 1-Chlorooctane 123 100 123 70-135 - 0-Terphenyl 57.0 50.2 114 70-135 - 0-Terphenyl 57.0 50.2 114 70-135 - Lab Batch #: 817882 Sample: 570025-1-BLK / BLK Batch: 1 Matrix:Solid - Units: mg/kg Date Analyzed: 08/06/10 22:39 SURROGATE RECOVERY STUDY Flags 1-Chlorooctane 108 100 108 70-135 1-Chlorooctane 108 100 108 70-135 Lab Batch #: 817882 Sample: 384538-001 / SMP Batch: 1 Matrix:Soil Units: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount Found [A] True Amount [B] Recovery %R [D] Control Limits %R 1-Chlorooctane 108 100 108 70-135 Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: 1	Units: mg/kg	Date Analyzed: 08/06/10 22:19	SU	RROGATE RI	ECOVERY	STUDY	
1-Chlorooctane 123 100 123 70-135 o-Terphenyl 57.0 50.2 114 70-135 Lab Batch #: 817882 Sample: 570025-1-BLK / BLK Batch: 1 Matrix:Solid Units: mg/kg Date Analyzed: 08/06/10 22:39 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A1] True Amount [A1] Recovery [ID] Control Limite %R Flags 1-Chlorooctane 108 100 108 70-135 Flags 0-Terphenyl 57.2 50.1 114 70-135 Flags Units: mg/kg Date Analyzed: 08/06/10 23:38 Batch: 1 Matrix:Soil Flags Units: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE RECOVERY STUDY Lab Batch #: 817882 Sample: 384538-001 / SMP Batch: 1 Matrix:Soil Units: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE RECOVERY STUDY Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: 1 Matrix:Soil Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: <t< td=""><td>ТРН</td><td>by SW8015 Mod Analytes</td><td>Amount Found [A]</td><td>True Amount [B]</td><td>Recovery %R [D]</td><td>Control Limits %R</td><td>Flags</td></t<>	ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl 57.0 50.2 114 70-135 Lab Batch #: 817882 Sample: 570025-1-BLK / BLK Batch: 1 Matrix:Solid Units: mg/kg Date Analyzed: 08/06/10 22:39 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True Amount [A] Amount [B] Recovery (D) Control Limits %R Flags 1-Chlorooctane 108 100 108 70-135 Flags 0-Terphenyl 57.2 50.1 114 70-135 Flags 0-Terphenyl 57.2 50.1 114 70-135 Flags Units: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE RECOVERY STUDY Flags Flags Units: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE RECOVERY STUDY Flags Flags 1-Chlorooctane 108 100 108 70-135 Flags 1-Chlorooctane 108 100 108 70-135 Flags 0-Terphenyl 58.0 50.0 116 70-135 Flags Units: mg/kg<	1-Chlorooctanc		123	100	123	70-135	
Lab Batch #: 817882 Sample: 570025-1-BLK / BLK Batch: 1 Matrix: Solid Units: mg/kg Date Analyzed: 08/06/10 22:39 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True [B] True Amount [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctanc 108 100 108 70-135 - o-Terphenyl 57.2 50.1 114 70-135 - Lab Batch #: 817882 Sample: 384538-001 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE Recovery %R Control Limits Units: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE Recovery %R Flags TPH by SW8015 Mod Amount [A] True [B] Recovery %R Control Limits Flags 1-Chlorooctane 108 100 108 70-135 - 1-Chlorooctane 58.0 50.0 116 70-135 - Lab Batch #: 817882	o-Terphenyl	······	57.0	50.2	114	70-135	
Units: mg/kg Date Analyzed: 08/06/10 22:39 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True Amount [B] Recovery %R [D] Control Limits %R [D] Flags 1-Chlorooctane 108 100 108 70-135 - o-Terphenyl 57.2 50.1 114 70-135 - Lab Batch #: 817882 Sample: 384538-001 / SMP Batch: 1 Matrix: Soil - Units: mg/kg Date Analyzet: 08/06/10 23:38 SURROGATE RECOVERY STUDY - - TPH by SW8015 Mod Amount Found [A] True Amount [B] Recovery %R [D] Control Limits %R [D] Flags 1-Chlorooctane 108 100 108 70-135 - I-Chlorooctane 108 100 108 70-135 - I-Chlorooctane 58.0 50.0 116 70-135 - Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: 1 Matrix:Soil Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: 1 Matrix:Soil </td <td>Lab Batch #: 817882</td> <td>Sample: 570025-1-BLK / E</td> <td>BLK Batcl</td> <td>h: 1 Matrix</td> <td>Solid</td> <td></td> <td></td>	Lab Batch #: 817882	Sample: 570025-1-BLK / E	BLK Batcl	h: 1 Matrix	Solid		
TPH by SW8015 Mod Amount Found [A] True Amount [B] True Amount [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctane o-Terphenyl 108 100 108 70-135 - 0-Terphenyl 57.2 50.1 114 70-135 - Lab Batch #: 817882 Sample: 384538-001 / SMP Batch: 1 Matrix:Soil - Units: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE RECOVERY STUDY - - TPH by SW8015 Mod Amount [A] True [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctane o-Terphenyl 108 100 108 70-135 - Lab Batch #: 817882 Sample: 384564-004 S / MS Units: mg/kg Batch: 1 Matrix: Soil - Lab Batch #: 817882 Sample: 384564-004 S / MS Units: mg/kg Batch: 1 Matrix: Soil - TPH by SW8015 Mod Analytes Amount [A] True Recovery [B] Recovery %R [D] Control Limits %R Flags %R 1-Chlorooctane O-Terphenyl 125 100 125 <td>Units: mg/kg</td> <td>Date Analyzed: 08/06/10 22:39</td> <td>SU</td> <td>RROGATE RI</td> <td>ECOVERY</td> <td>STUDY</td> <td></td>	Units: mg/kg	Date Analyzed: 08/06/10 22:39	SU	RROGATE RI	ECOVERY	STUDY	
I-Chlorooctanc 108 100 108 70-135 o-Terphenyl 57.2 50.1 114 70-135 Lab Batch #: 817882 Sample: 384538-001 / SMP Batch: 1 Matrix:Soil Units: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True Amount [A] Recovery [B] Control Limits %R Flags 1-Chlorooctanc 108 100 108 70-135 50.0 1-Chlorooctanc 108 100 108 70-135 50.0 0-Terphenyl 58.0 50.0 116 70-135 50.0 Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: 1 Matrix:Soil Units: mg/kg Date Analyzed: 08/07/10 05:53 SURROGATE RECOVERY STUDY 50.0 116 70-135 Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: 1 Matrix:Soil 50.0 116 70-135 Units: mg/kg Date Analyzed: 08/07/10 05:53 SURROGATE RECOVERY STUDY 50.0 50.	ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl 57.2 50.1 114 70-135 Lab Batch #: 817882 Sample: 384538-001 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True [B] Recovery %R [D] Control Limits %R [D] Flags 1-Chlorooctane 108 100 108 70-135 - 0-Terphenyl 58.0 50.0 116 70-135 - Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: 1 Matrix: Soil - Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: 1 Matrix: Soil - Units: mg/kg Date Analyzed: 08/07/10 05:53 SURROGATE RECOVERY STUDY - - TPH by SW8015 Mod Amount [A] True Round [A] Recovery [B] Control Limits %R Flags 1-Chlorooctane 125 100 125 70-135 1-Chlorooctane 125 100 125 70-135 1-Chlorooctane	1-Chlorooctane		108	100	108	70-135	
Lab Batch #: 817882 Sample: 384538-001 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 08/06/10 23:38 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True Amount [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctane 108 100 108 70-135 - o-Terphenyl 58.0 50.0 116 70-135 - Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: 1 Matrix: Soil - Units: mg/kg Date Analyzed: 08/07/10 05:53 SURROGATE RECOVERY STUDY - - TPH by SW8015 Mod Amount Found [A] 1 Matrix: Soil - - TPH by SW8015 Mod Amount [A] True Amount [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctane 125 100 125 70-135 0-Terphenyl 47.7 50.2 95 70-135	o-Terphenyl	<u>,</u>	57.2	50.1	114	70-135	
Units: mg/kgDate Analyzed: 08/06/10 23:38SURROGATE RECOVERY STUDYTPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %RControl Limits %RFlags1-Chlorooctane10810010870-135-o-Terphenyl58.050.011670-135-Lab Batch #: 817882Sample: 384564-004 S / MS Date Analyzed: 08/07/10 05:53Batch:1Matrix:SoilUnits: mg/kgDate Analyzed: 08/07/10 05:53SURROGATE RECOVERY STUDYFlagsTPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %RControl Limits %RFlags1-Chlorooctane12510012570-135-1-Chlorooctane12510012570-135-	Lab Batch #: 817882	Sample: 384538-001 / SMF	Batcl	h: 1 Matrix	:Soil		
TPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %R [P]Flags1-Chlorooctane10810010870-135-o-Terphenyl58.050.011670-135-Lab Batch #: 817882Sample: 384564-004 S / MS Date Analyzed: 08/07/10 05:53Batch:1Matrix: SoilUnits: mg/kgDate Analyzed: 08/07/10 05:53SURROGATERECOVERY STUDYTPH by SW8015 Mod AnalytesAmount Found [A]True Amount [B]Recovery %R (D]Control Limits %RFlags1-Chlorooctane12510012570-135-1-Chlorooctane12510012570-135-	Units: mg/kg	Date Analyzed: 08/06/10 23:38	SU	RROGATE RI	ECOVERY	STUDY	
I-Chlorooctane IO8 IO0 IO8 70-135 o-Terphenyl 58.0 50.0 116 70-135 Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: 1 Matrix:Soil Units: mg/kg Date Analyzed: 08/07/10 05:53 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount Found [A] True Amount [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctane 125 100 125 70-135 Flags 0-Terphenyl 47.7 50.2 95 70-135	ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl 58.0 50.0 116 70-135 Lab Batch #: 817882 Sample: 384564-004 S / MS Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 08/07/10 05:53 SURROGATE RECOVERY STUDY TPH by SW8015 Mod Amount [A] True Amount [A] Recovery %R [D] Control Limits %R Flags 1-Chlorooctane 125 100 125 70-135 o-Terphenyl 47.7 50.2 95 70-135	1-Chlorooctane		108	100	108	70-135	
Lab Batch #: 817882Sample: 384564-004 S / MSBatch:1Matrix: SoilUnits: mg/kgDate Analyzed: 08/07/10 05:53SURROGATE RECOVERY STUDYTPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RFlags1-Chlorooctane12510012570-135	o-Tcrphenyl		58.0	50.0	116	70-135	<u> </u>
Units: mg/kgDate Analyzed: 08/07/10 05:53SURROGATE RECOVERY STUDYTPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RFlags1-Chlorooctanc12510012570-135	Lab Batch #: 817882	Sample: 384564-004 S / M	S Batcl	h: 1 Matrix	:Soil		
TPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RFlags1-Chlorooctane12510012570-135o-Terphenyl47.750.29570-135	Units: mg/kg	Date Analyzed: 08/07/10 05:53	SU	RROGATE RI	ECOVERY	STUDY	
I-Chlorooctane I25 I00 I25 70-135 o-Terphenyl 47.7 50.2 95 70-135	ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
0-Terphenyl 47.7 50.2 95 70-135	1-Chlorooctanc	•	125	100	125	70-135	
	o-Terphenyl		47.7	50.2	95	70-135	

* Surrogate outside of Laboratory QC limits
 ** 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.



Form 2 - Surrogate Recoveries

Project Name: Scharb Station Overflow

Work Orders : 384538	,		Project I	D: SRS# 2008	8-210	
Lab Batch #: 817882	Sample: 384564-004 SD / N	ASD Bate	h: 1 Matrix	c:Soil		
Units: mg/kg	Date Analyzed: 08/07/10 06:12	SU	RROGATE R	ECOVERY	STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes					
1-Chlorooctane		124	101	123	70-135	
o-Terphenyl		56.0	50.3	111	70-135	

* Surrogate outside of Laboratory QC limits

** 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.



2430 98 8 4 N

5.12



BS / BSD Recoveries

Project Name: Scharb Station Overflow

Work Order #: 384538 Analyst: BEV Lab Batch ID: 817882 Units: mg/kg	Sample: 570025-1-BKS	Da	te Prepare Batch BLANH	ed: 08/06/201 #: 1 K/BLANK S	0 SPIKE / H	BLANK S	PIKE DUPI	Proj Date Al	ect ID: 5 nalyzed: (Matrix: 5 RECOVI	SRS# 2008- 08/06/2010 Solid ERY STUD	210 •Y	
TPH by SW801 Analytes	15 Mod B Samp	llank ble Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydroca	rbons	ND	1000	1070	107	1000	1120	112	5	70-135	35	
C12-C28 Diesel Range Hydrocar	bons	ND	1000	877	88	1000	1000	100	13	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



Project Name: Scharb Station Overflow



Work Order #: 384538						Project II	D: SRS# 2	008-210			
Lab Batch ID: 817882 Date Analyzed: 08/07/2010	QC- Sample ID: Date Prepared:	384564 08/06/2	004 S 2010	Ba An	tch #: alyst:	l Matri BEV	k: Soil				
Reporting Units: mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
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	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1050	1130	108	1060	1120	106	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1050	956	91	1060	1030	97	7	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative 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

Final 1.000



Sample Duplicate Recovery



Project Name: Scharb Station Overflow

Work Order #: 384538

Lab Batch #: 817871 Date Analyzed: 08/07/2010	Date Prepared: 08/07/2010 Batch #: 1	Ana Ma	Project I lyst:JLG triv: Soil	D: SRS# 20	08-210
Reporting Units: %	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Lab Batch #: 817871 Date Analyzed: 08/07/2010 C- Sample ID: 384538-001 D eporting Units: % Percent Moisture Analyte cent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	9.30	9.69	4	20	

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

Analytical Report 367418

for

PLAINS ALL AMERICAN EH&S

Project Manager: Daniel Bryant

Scharb Station Overflow

2008-210

06-APR-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295)

> > Page 1 of 15



06-APR-10

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

Reference: XENCO Report No: 367418 Scharb Station Overflow Project Address: Lea County, NM

Daniel 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 367418. 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. 367418 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



and the second second



Sample Cross Reference 367418

PLAINS ALL AMERICAN EH&S, Midland, TX

Scharb Station Overflow

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1	W	Mar-30-10 08:15		367418-001
MW-2	W	Mar-30-10 09:10		367418-002
MW-3	W	Mar-30-10 09:50		367418-003
MW-4	W	Mar-30-10 10:30		367418-004



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S Project Name: Scharb Station Overflow

 Project ID:
 2008-210

 Work Order Number:
 367418

Report Date: 06-APR-10 Date Received: 03/31/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-801032 BTEX by EPA 8021 SW8021BM

Batch 801032, 4-Bromofluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 367414-002 S.

Batch: LBA-801115 Inorganic Anions by EPA 300 None

Batch: LBA-801229 TDS by SM2540C None



Project Id: 2008-210

Project Location: Lea County, NM

Contact: Daniel Bryant

Certificate of Analysis Summary 367418 PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Scharb Station Overflow

Date Received in Lab: Wed Mar-31-10 09:00 am

Report Date: 06-APR-10

								Project Ma	nager:	Brent Barron, II		
	Lab Id:	367418-	001	367418-	002	367418-	003	367418-	004			
Analysis Requested	Field Id:	MW-	1	MW-2	2	MW-	3	MW-4	4			
Analysis Requested	Depth:											
	Matrix:	WATE	ER	WATE	R	WATE	ER	WATE	R			
	Sampled:	Mar-30-10	08:15	Mar-30-10	09:10	Mar-30-10	09:50	Mar-30-10	10:30			
BTEX by EPA 8021	Extracted:	Apr-02-10	10:00	Apr-02-10	10:00	Apr-02-10	10:00	Apr-02-10	10:00			
	Analyzed:	Apr-02-10	14:52	Apr-02-10	15:12	Apr-02-10	15:33	Apr-02-10	15:54			
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL			
Benzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010			
Toluene		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020		 	
Ethylbenzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010			
m,p-Xylenes		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020			
o-Xylene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010			
Xylenes, Total		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010			_
Total BTEX		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010			
Inorganic Anions In Water by E300	Extracted:											
	Analyzed:	Apr-05-10	10:49	Apr-05-10	1 0:49	Apr-05-10	10:49	Apr-05-10	10:49			
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL		 	
Chloride		24.4	5.00	82.4	5.00	157	5.00	32.5	5.00			
TDS by SM2540C	Extracted:											
	Analyzed:	Apr-05-10	16:00	Apr-05-10	16:00	Apr-05-10	16:00	Apr-05-10	16:00			
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL			
Total dissolved solids		476	5.00	764	5.00	802	5.00	502	5.00			

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 judgment of XENCO Laboratories. XENCO Laboratories assumes no 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 - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II

Odessa Laboratory Manager



- 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 and above the SQL.
- 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.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL Below Reporting Limit.
- **RL** Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Corpus Christi - Midland/Odessa - Tampa - Miami - Latin America Phone Fax (281) 240-4200 (281) 240-4280 4143 Greenbriar Dr, Stafford, Tx 77477 (214) 902 0300 (214) 351-9139 9701 Harry Hincs Blvd, Dallas, TX 75220 (210) 509-3334 (210) 509-3335 5332 Blackberry Drive, San Antonio TX 78238 (813) 620-2000 (813) 620-2033 2505 North Falkenburg Rd, Tampa, FL 33619 (305) 823-8500 (305) 823-8555 5757 NW 158th St, Miami Lakes, FL 33014 (432) 563-1800 (432) 563-1713 12600 West I-20 East, Odessa, TX 79765 (361) 884-0371 (361) 884-9116 842 Cantwell Lane, Corpus Christi, TX 78408



Form 2 - Surrogate Recoveries

Project Name: Scharb Station Overflow

Work Orders: 367418	,		Project ID	:2008-210		
Lab Batch #: 801032	Sample: 559837-1-BKS / B	KS Batel	h: 1 Matrix:	Water	TUN	
Units: mg/L	Date Analyzed: 04/02/10 11:03		RRUGATE RE	COVERY		
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0303	0.0300	101	80-120	
4-Bromofluorobenzene		0.0267	0.0300	89	80-120	
Lab Batch #: 801032	Sample: 559837-1-BSD / B	SD Batel	h: ¹ Matrix:	Water		
Units: mg/L	Date Analyzed: 04/02/10 11:24	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	······································	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene		0.0265	0.0300	88	80-120	
Lab Batch #: 801032	Sample: 559837-1-BLK / B	LK Bate	h: 1 Matrix:	Water	·	
Units: mg/L	Date Analyzed: 04/02/10 12:26	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0281	0.0300	94	80-120	
4-Bromofluorobenzene		0.0263	0.0300	88	80-120	
Lab Batch #: 801032	Sample: 367418-001 / SMP	Batc	h: 1 Matrix:	Water	L	
Units: mg/L	Date Analyzed: 04/02/10 14:52	SU	RROGATE RE	COVERY	STUDY	18.6
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
14-Difluorobenzene		0.0279	0.0200	02	80.120	
4-Bromofluorobenzene		0.0279	0.0300	86	80-120	
Lab Batch #: 801032	Sample: 367418-002 / SMF	Bate	h: 1 Matrix:	Water		
Units: mg/L	Date Analyzed: 04/02/10 15:12	SU	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0293	0.0300	98	80-120	
4-Bromofluorobenzene		0.0291	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

** 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.



Form 2 - Surrogate Recoveries

Project Name: Scharb Station Overflow

Vork Orders : 367418	,	Project 1D: 2008-210											
Lab Batch #: 801032	Sample: 367418-003 / SMP	Batch	a: 1 Matrix:	:Water									
Units: mg/L	Date Analyzed: 04/02/10 15:33	SUI	RROGATE RF	ECOVERY S	STUDY								
ВТЕ	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags							
1,4-Difluorobenzene		0.0294	0.0300	98	80-120	í/							
4-Bromofluorobenzene		0.0262	0.0300	87	80-120	·							
Lab Batch #: 801032	Sample: 367418-004 / SMP	Batel	h: 1 Matrix	Water									
Units: mg/L	Date Analyzed: 04/02/10 15:54	SU	RROGATE RI	ECOVERY ?	STUDY								
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags							
1,4-Difluorobenzene		0.0278	0.0300	93	80-120	[
4-Bromofluorobenzene		0.0278	0.0300	93	80-120	[]							
Lab Batch #: 801032	Sample: 367414-002 S / MS	Batel	h: 1 Matrix	:Water									
Units: mg/L	Date Analyzed: 04/02/10 20:22	SU	RROGATE RI	ECOVERY ?	STUDY								
ВТЕ	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags							
1,4-Difluorobenzene		0.0293	0.0300	98	80-120	[
4-Bromofluorobenzene		0.0204	0.0300	68	80-120	*							
Lab Batch #: 801032	Sample: 367414-002 SD / N	ISD Bate	h: 1 Matrix	Water									
Units: mg/L	Date Analyzed: 04/02/10 20:42	SU	RROGATE RI	ECOVERY !	STUDY								
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags							
1,4-Difluorobenzene		0.0295	0.0300	98	80-120								
4-Bromofluorobenzene		0.0452	0.0300	151	80-120	*							

* Surrogate outside of Laboratory QC limits

** 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.





Project Name: Scharb Station Overflow

Work Order #: 367418		Pr	oject ID:			2008-210
Lab Batch #: 801115 Date Analyzed: 04/05/2010 Da	Sample: 801115- te Prepared: 04/05/20	1-BKS 010	Matrix Analyst	: Water : LATCOR	L .	
Reporting Units: mg/L	Batch #: 1	BLANK /	BLANK SPI	KE REC	OVERY	STUDY
Inorganic Anions In Water by E300	Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags
Analytes	[A]	[8]	Result {C}	%R [D]	%R	
Chloride	ND	10.0	9.95	100	90-110	

Blank Spike Recovery [D] = 100*[C]/[B] All results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

1999





Project Name: Scharb Station Overflow

Work Order #: 367418 Analyst: ASA		Da	ate Prepar	ed: 04/02/201	0			Pro Date A	ject ID: 2 nalyzed: 0	2008-210 94/02/2010						
Lab Batch ID: 801032	Sample: 559837-1-B	KS	Bate	h #: 1					Matrix: V	Vater						
Units: mg/L	[BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY														
BTEX by EP Analytes	PA 8021	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag				
Benzene		ND	0.1000	0.0890	89	0.1	0.0982	98	10	70-125	25					
Toluene		ND	0.1000	0.0878	88	0.1	0.0973	97	10	70-125	25					
Ethylbenzene		ND	0.1000	0.0889	89	0.1	0.0986	99	10	71-129	25	-				
m,p-Xylenes		ND	0.2000	0.1816	91	0.2	0.2020	101	11	70-131	25					
o-Xylene		ND	0.1000	0.0905	91	0.1	0.1003	100	10	71-133	25					
Analyst: WRU		Da	ate Prepar	ed: 04/05/201	0			Date A	nalyzed: 0	4/05/2010	- <u></u>					
Lab Batch ID: 801229	Sample: 801229-1-B	KS	Batc	h #: 1					Matrix: V	Water						
Units: mg/L	[BLAN	K/BLANK S	SPIKE / E	BLANK S	SPIKE DUPI	ICATE	RECOVE	ERY STUD	Y					
TDS by SM Analytes	2540C	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R {D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag				
Total dissolved solids		ND	1000	944	94	1000	928	93	2	80-120	30					

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 Recoveries



Project Name: Scharb Station Overflow

Work Order #: 367418 Lab Batch #: 801115		Pro	oject ID	: 2008-210	
Date Analyzed: 04/05/2010	Date Prepared: 04/05/2010	A	nalyst: L	ATCOR	
QC- Sample ID: 366822-001 S	Batch #: 1	r	Matrix: V	Vater	
Reporting Units: mg/L	MATRIX /	MATRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 300	Parent Sample Spi Result Add	Spiked Sample ke Result led [C]	%R [D]	Control Limits %R	Flag
Analytes	[A] [B		. /		
Chloride	148 10	0 239	91	90-110	

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference [E] = 200*(C-A)/(C+B)All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Project Name: Scharb Station Overflow



Work Order #: 367418	Project ID: 2008-210											
Lab Batch ID: 801032 Date Analyzed: 04/02/2010 Reporting Units: mg/L	QC- Sample ID: Date Prepared:	367414 04/02/2	-002 S 010	Ba An	tch #: alyst:	1 Matrix ASA	Water	OVERV	TIDV			
BTEX by EPA 8021 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	ND	0.1000	0.0770	77	0.1000	0.0807	81	5	70-125	25		
Toluene	ND	0.1000	0.0766	77	0.1000	0.0810	81	6	70-125	25		
Ethylbenzene	ND	0.1000	0.0776	78	0.1000	0.0828	83	6	71-129	25		
m,p-Xylenes	ND	0.2000	0.1566	78	0.2000	0.1665	83	6	70-131	25		
o-Xylene	ND	0.1000	0.0801	80	0.1000	0.0839	84	5	71-133	25		

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative 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 Applicable N = See Narrative, EQL = Estimated Quantitation Limit





Work Order #: 367418

Lab Batch #: 801115 Date Analyzed: 04/05/2010	Date Prepar Batel	red:04/05/2010) Anal Mat	Project II lyst:LATC	D: 2008-210 OR)
Reporting Units: mg/L	Dater	SAMPLE /	/ SAMPLE	DUPLIC.	ATE REC	OVERY
Inorganic Anions In Water by	E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride		148	147	1	20	
Lab Batch #: 801229 Date Analyzed: 04/05/2010 QC- Sample ID: 367418-001 D	Date Prepar Bate!	•ed:04/05/2010) Anal Mat	lyst:WRU rix: Water		
Reporting Units: mg/L		SAMPLE /	SAMPLE	DUPLIC.	ATE RECO	OVERY
TDS by SM2540C Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total dissolved solids		476	468	2	30	

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

Env	vironment	al Lab of T	exa	IS					12 Oc	600 \ less:	(Nest a, Tex	CHA 1-20 (25 7	IN C Eas 1976	0 <i>F C</i> t 5	cus	τοι	DY R	EC	ORI	D AI	VD A	NA Pi F	LYS 10ne ax:	3/S / 3: 4: 4:	RE(32-5 32-5	QUE 163-1 563-1	:ST 1800 1713) 3			
	Project Manager:	Camille Bryant														-	Pr	ojec	t Na	me:	Sch	arb	Sta	tior	<u>10</u>	verf	low	<u> </u>			
	Company Name	Basin Environmental S	ervice 1	echnol	ogies, LLC						•					_		Pi	ojec	:t#:	200	<u>8-21</u>	0								
	Company Address:	P. O. Box 301														_	ļ	Proje	act L	.00:	Lea	Cour	n ty , [NM							
	City/State/Zin:	Lovington, NM 88260			·											•			P	D#:	PAA	- D.	Bry	ant							
	Telephone No;	(575)605-7210	Û		AUNT	Fax No.	: hh	(50	5) 3	96-1	429					. R	lepor	t Fo	rmat	: :	X s	Stand	lard		٢] TR	RP			NPD	ES
	Sampler Signature:	GMille Jaid	m ux	ype	LOUXI	lepton	ЪÇ,	Sil	ριγ	anti	@ba	<u>isin</u>	-co	nsı	<u>iltir</u>	<u>ng.c</u>	<u>om</u>	~					Anal	yze	For	-	,			~_	٦
(lab use	only)			V	0													F			τCI TOT/	LP: AL:	Ŧ	Ŧ	Ҕ	ď	Γ	T	Π	-	
ORDE	R#: 3674	18						—	Ę	'eserv	ation	& / C	of Con	itain	ers	M	atrix 8 £	g				3		╈	18	1					
AB # (lab use only)	FIFI		leginning Depth	inding Depth	Date Sampled	Time Sampled	teld Filtered	otal #. cf Containers	100 DOD ME Has	HNO,	Ha V CA	NaOH	Na ₂ S2O3	None	Other (Specify)	W-Drinking Water SL-Stud	3W - Groundwater S-Soli/So NP=Non-Potable Specify Oti	PH: 418.1 8015M 80	PH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	vrions (CI, SO4, Alkalinity)	AR / ESP / CEC debte: As As Ba CA Cr Ph Hr	/olaties	lemivolatites	3TEX 80218/5030 or BTEX 8	ç	LORM.	SO.	Nhoride E 300	118H TAT (0-844414) 2	tandard TAT 4 DAY
0,		WW-1	 @	<u>↓ ₩</u>	3/30/2010	0815	┤╨	Ĕ 4	1		3	+	+	\vdash			iW	╞	F	0	<u>∢</u>		┦	10	† _x	Į ^m	<u>ع</u>	x	x	╶┼╴	X
02		WW-2			3/30/2010	0910		4	1		3					9	W			1			1	T	x			x	X	T	x
03	1	MW-3	Τ		3/30/2010	0950		4	1		3	Ļ				G	W						\bot	Ţ	x	L		x	X		X
04		1W-4	+	┣	3/30/2010	1030	\downarrow	4	1	┞╴┤	3	+				G	W	┡		4	-	+	\downarrow	╞	₽	+	\square	×	X	╇	×
			+	┢──			+	\vdash	┝╸	┞╴┨	┿	+	+					┢╌	\vdash	-+	-+-	╋	╋	╋	┝	┿╼╵	\vdash	┢╌┥	┝─┼	╉	+
			+	†						┝╌╀	┿	┿	┢			-		┢╴		-+	+	╈	╋	╈	+	┢		┝┤		╋	+
												T										T	T		L					1	
		<u></u>		┢			\square					\downarrow								~	\downarrow	_	∔_	╇	╞	╇	\bigsqcup	\square	┝─╇		
Special				L_					L								-	L			orate								<u> </u>		Ц
Relinquis	The Bernet	NOIDS 5301		ime Ime	Received by:	D.S) -er	/	Ş					3	Da Da		01	Tim Loc		San VOC Labe Cus San	iple (is Fri tody lody iple (conte se of seals seals seals	Hes tain on Deli	à Int idspi ur(s) cont coot ivere	ace aine br(s)	? F(S)			30-1933	N N N N N N N N N N N N N N N N N N N	5498 1992 3 100
Refinquis	til tyt			ime	Received by EL	u A	7							3,	Da /3	te //(Tim 290	$\hat{\mathbf{x}}$	Tem	by Co ipera	ture	? Upoi	UP n Re	'S ceip	DHI A:	L'	Fød 5.	ية ح	.one 5 •C	itar
L			-	·····		3								`			. 1 ~			14	the	ls	az	Se	al	S					

Page 14 of₁15

Final Ver. 1.000

الترجيل المرجي المواه

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:	Basin Environmental/Plains
Date/ Time:	3/31/10 09:00
cab ID # :	367418
Initials:	<u>K</u>

Sample Receipt Checklist

				Client Initial
#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?	(es)	No	Not Present
#5	Chain of Custody present?	Ves	No	
#6	Sample instructions complete of Chain of Custody?	Ves	No	
#7	Chain of Custody signed when relinquished/ received?	Hes	No	
#8	Chain of Custody agrees with sample label(s)?	Yes	No	iD written on Cont./ Lid
#9	Container label(s) legible and intact?	Cress	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	(Pes)	No	
#11	Containers supplied by ELOT?	(Fes)	No	
#12	Samples in proper container/ bottle?	Tes	No	See Below
#13	Samples properly preserved?	Ces	No	See Below
#14	Sample bottles intact?	(Tes)	No	
#15	Preservations documented on Chain of Custody?	Pes	No	
#16	Containers documented on Chain of Custody?	(ৰিৱ)	No	
#17	Sufficient sample amount for indicated test(s)?	(res)	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?	(Tes)	No	Not Applicable

Variance Documentation

Contact:	Contacted by:		Date/ Time:						
Regarding:			·····						
Corrective Action Taken:									

Check all that Apply:

のないないないであるというです。

See attached e-mail/ fax

Client understands and would like to proceed with analysis

Cooling process had begun shortly after sampling event

Final Ver. 1.000

.

- ---

Appendix C Photographs



Scharb Station Overflow Initial Release



Excavation Activities at the Scharb Station Overflow Release Site



Plugging of Monitor Wells at the Scharb Station Overflow Release Site



Completion on Remediation Activities at the Scharb Station Overflow Release Site

Appendix D Plugging Reports



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

ION	POD NUMB	BER (WEI B STA	LL NU	MBER) ON MW-1							OSE FILE NUM	IBER(S)			
OCATI	WELL OWN PLAINS	MAR	^{ie(s)} KET	TING LP							PHONE (OPTIC	DNAL)			
MELL I	WELL OWNER MAILING ADDRESS 333 CLAY STREET, SUITE 1600										CITY HOUSTO	N	state TX	77	ZIP 078
RAL AND	WELL LOCATI (FROM G	ON iPS)	LAT	ITUDE	DEGREE	s 2	MINU'	7ES 41 28	SECON 1	.00 N	 ACCURACY DATUM REC 	REQUIRED: ONE TEN QUIRED WGS 84	ITH OF A SEC	COND	
I. GENH	DESCRIPT PEARL	ION REL		G WELL LOCATI	ON TO STRE HWY 5	ET ADDRE	ESS AND	COMMON I NTY. N	LANDMA M	ARKS	<u> </u>				
AL	(2.5 ACF	€E) /4		(10 ACRE)	(40 A)	CRE)	(160 ACRE)		SECTION		TOWNSHIP	NORTH	RANGE	EAST
PTION/	SUBDIVISI	ON NAM	E							LOT NUM	1BER	BLOCK NUMBER		UNIT/TRA	ст
2.0	HYDROGR	APHIC S	URVE	Y								MAP NUMBER		TRACT NI.	MBER
	UICENSE NUMBER NAME OF LICENSED DRILLER WD1478 MARTIN STRAUB										NAME OF WELL DRILLING COMPANY STRAUB CORPORATION				
NO	DRILLING STARTEDDRILLING ENDED4-31-104-31-10				DED DEP	DEPTH OF COMPLETED WELL (FT) BORE HO				LE DEPTH (FT) 45	DEPTH WATER FIRST ENCOUNTERED (FT)				
RMATI	COMPLET	ED WELI	L IS	ARTESIAN	v 🗌	DRY HOLE		SHALLOW		NFINED)	STATIC WATER LEVEL IN COMPLETED WELL (FT)				
IG INFO	DRILLING	FLUID METHO	D:	AIR ROTARY		MUD HAMMER		ADDITIVE	S – SPEC		ER – SPECIFY:				
DRILLIN	DEPTH (FT) BORE FROM TO DIA		BORE HOL DIA. (IN)	.E	CASING MATERIAL				CONI TYPE	NECTION (CASING)	INSIDE DIA. CASING (IN)	CASING THICKN	G WALL IESS (IN)	SLOT SIZE (IN)	
3.															
ATA	DEPT FROM	TH (FT) TC)	THICKNES (FT)	ss	F	FORMA (INC	LUDE W	SCRIPT ATER-E	ION OF P BEARING	RINCIPAL W	ATER-BEARING S R FRACTURE ZON	STRATA NES)		YIELD (GPM)
NG STR															
BEARI						<u></u>									
WATER	METHOD L	JSED TO	ESTI	MATE YIELD OF	WATER-BE	RING STR	RATA				u	TOTAL ESTIMATE	D WELL YIEL	.D (GPM)	
4			· · ··;												

FOR OSE INTERNAL USE	WELL RECORD & LOG (Version 6/9/08)			
FILE NUMBER	POD NUMBER	TRN NUMBER		
LOCATION			PAGE 1 OF 2	

4	TYPE O	F PUMP:		SIBLE			· · · · · · · · · · · · · · · · · · ·	-	······································	
M				E				T	• <u> </u>	
A UN P	A NINI	ILAD	DEPTH FROM	I (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHO PLACE	OD OF MENT	
AL	SEAL	AND	2	45	2	1.5 BAGS OF 3/8 HOLEPLUG		TOPL	.OAD	
SE.	GRAVE	L PACK	0	2	2	1/4 BAG OF CEMENT		TOPLOAD		
4,										
	DEPT	H (FT)	ТНІСК	NESS	1		FRED	 \\\\A^	тер	
	FROM	ТО	(F1	r)	(INCL)	JDE WATER-BEARING CAVITIES OR FRACT	URE ZONES)	BEAR	JNG?	
1								🗖 YES	🗖 NO	
								🗖 YES		
								YES	D NO	
								TYES	□ NO	
بہ								🗖 YES	D NO	
VEL								☐ YES	□ NO	
OF \					<u>,</u>			VES	D NO	
Ő								□ YES	□ NO	
ICI								☐ YES	□ NO	
LOG							· · · · · · · · · · · · · · · · · · ·	TYES	NO 🔲	
030								☐ YES	□ NO	
ۍ و							· · · · · · · · · · · · · · · · · · ·	☐ YES	🗖 NO	
								☐ YES	□ NO	
								U YES	□ NO	
							,	TYES	🗖 NO	
							······································	🗖 YES	🗖 NO	
							······	TYES	🗆 NO	
			ATTACH	ADDITION	IAL PAGES AS NE	EDED TO FULLY DESCRIBE THE GEOLOGIC	LOG OF THE WELL			
			METHOD:	BAILE	R DPUMP	AIR LIFT OTHER - SPECIFY:				
INF	WELL	TEST	TEST RESU	LTS - ATTA	CH A COPY OF D	ATA COLLECTED DURING WELL TESTING,	INCLUDING START TI	ME, END TI	ME,	
IVAI										
OITI	PLUGG	ING RE	PORT	ANA HONS:						
00	1 FT CA	ASING F	REMOVED							
8										
EST										
7.7										
<u> </u>	TUEIN	DERSICN		EDTIFIES 1				A TRUE		
IRE	CORREC	T RECOR	D OF THE AB	OVE DESC	RIBED HOLE ANI	D THAT HE OR SHE WILL FILE THIS WELL R	ECORD WITH THE STA	TE ENGINE	ER AND	
ATL		(MIT HOL	DER WITHIN	20 DAYS A	FIER COMPLETI	ON OF WELL DRILLING:				
IGN	$ \mathcal{W}$	Unt	i At	al		5-5-10				
8.5		<u> </u>	SIGNATUR	E OF DRILI	LER	DATE				
	I									

FOR OSE INTERNAL USE	WELL RECORD & LOG (Version 6/9/08)			
FILE NUMBER	POD NUMBER	TRN NUMBER		
LOCATION			PAGE 2 OF 2	



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

NOI	POD NUMI SCHAR	BER (WE	LL NUMB	BER) MW-2						OSE FILE NUN	(BER(S)			
OCAT	PLAINS	NER NAN MAR	ME(S) RKETIN	NG LP						PHONE (OPTIC	DNAL)			
MELL 1	WELL OWNER MAILING ADDRESS 333 CLAY STREET, SUITE 1600										N	state TX	77	ZIP 7078
AND	WELL DEGREES MINUTES SECONDS													
RAL	LOCATI (FROM (ION GPS)	LATITU	IDE	32		41		1.00 N	* ACCURACY * DATUM REC	REQUIRED. ONE TEN (UIRED: WGS 84	ITH OF A SEC	COND	
GENE	DESCRIPT	TION REL	LONGIT	TUDE	ON TO STREET AD	DRESS A	Z8 ND COMMOI	N LANDA	7.00 **	<u> </u>			'	
-T-	PEARL	VALL	EY RO		HWY 529 LI		DUNTY.	NM						
	(2.5 AC	RE)	(10	ACRE)	(40 ACRE)		(160 ACR	E)	SECTION		TOWNSHIP	NORTH	RANGE	EAST
INAL	SUBDIVISI	V4 ION NAM	1E	1/4	/4			4	LOT NUM	IBER	BLOCK NUMBER	SOUTH	UNIT/TRA	
DPTI(
2. (HYDROGR	APHIC S	URVEY								MAP NUMBER		TRACT NU	JMBER
	LICENSEN	UMBER	N							<u>.</u>	NAME OF WELL DE			
	DRILLING STARTED DRILLING ENDED DEPTH OF COMPLETED WELL (FT) BORE H								BORE HO	LE DEPTH (FT)	DEPTH WATER FIR	RPORA	TERED (FT)	
NO	4-3	1-10		4-31-10		45 45				45				
RMATIC	COMPLET	ED WELL		ARTESIAN		DLE	SHALLO	W (UNC	ONFINED)		STATIC WATER LEVEL IN COMPLETED WELL (FT)			
NFO	DRILLING	FLUID.		AIR	DUM			/ES – SPE	CIFY:					
IDNI	DRILLING	METHOD	D: [ROTARY	НАММ	ER	CABLET	TOOL		ER - SPECIFY:				
DRILL	DEPT FROM	́н (FT) то)	BORE HOL DIA. (IN)	E	CASING MATERIAL			CONI TYPE	NECTION (CASING)	INSIDE DIA. CASING (IN)	CASING THICKN	G WALL IESS (IN)	SLOT SIZE (IN)
ri.														
ΓA	DEP1 FROM	H (FT) TO	, ,	THICKNES (FT)	S	FORN (1	ATION DI	ESCRIP VATER	TION OF P -BEARING	RINCIPAL W. CAVITIES O	ATER-BEARING S R FRACTURE ZON	TRATA IES)		YIELD (GPM)
STRA														
ING S														
EAR														
rer e														
4. WAT	METHODU	JSED TO	ESTIMAT	FE YIELD OF	WATER-BEARING S	TRATA					TOTAL ESTIMATED	DWELL YIEL	.D (GPM)	
	·										····			

FOR OSE INTERNAL USE	WELL RECORD & LOG (Version 6/9/08)			
FILE NUMBER	POD NUMBER	TRN NUMBER		
LOCATION		PAGE 1 OF 2		

			DCDT					
			FROM		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
AL	SEAL	JLAR AND	2	45	2	1.5 BAGS OF 3/8 HOLEPLUG		TOPLOAD
5. SE	GRAVE	L PACK	0	2	2	1/4 BAG OF CEMENT		TOPLOAD
	DEPTH (FT) THICKNESS FROM TO (FT)			(NESS T)	(INCL)	COLOR AND TYPE OF MATERIAL ENCOU JDE WATER-BEARING CAVITIES OR FRAC	NTERED CTURE ZONES)	WATER BEARING?
								YES NO
								YES NO
								YES NO
						*****	······	YES NO
								YES NO
×Ε.Γ							· · · · · · · · · · · · · · · · · · ·	
5								VES NO
3								
ן ר								
3								□ YES □ NO
D.1.					_			YES NO
ė								□ YES □ NO
					-			YES NO
	·							YES NO
								YES NO
								YES NO
			ATTACH	ADDITION	NAL PAGES AS NE	EDED TO FULLY DESCRIBE THE GEOLOG	IC LOG OF THE WELL	
			METHOD:	BAILI	ER DUMP	AIR LIFT OTHER - SPECIFY:		
TINK	WELL TEST TEST RESULTS - ATTACH A COPY O AND A TABLE SHOWING DISCHARC					ATA COLLECTED DURING WELL TESTING AND DRAWDOWN OVER THE TESTING PE	G, INCLUDING START 1 RIOD.	TIME, END TIME,
NO NA	ADDITION							
	PLUGG	ING RE	PORT					
K AU		ASING P	ENOVED					
	<u> </u>							
÷,	THE UNI	DERSIGNE	ED HEREBY (D OF THE AE	CERTIFIES	THAT, TO THE BE RIBED HOLE AND	ST OF HIS OR HER KNOWLEDGE AND BEI THAT HE OR SHE WILL FILE THIS WELL	LIEF, THE FOREGOING RECORD WITH THE ST	IS A TRUE AND ATE ENGINEER AND
	THE PER	MIT HOL	DER WITHIN	20 DAYS A	FTER COMPLETION	ON OF WELL DRILLING:		
5	Y	nat	F. St	Tal		(-5-10)		
0	SIGNATURE OF DRILLER				LER			
		<u></u>						
	FOR OSE	E INTERNA	AL USE				WELL RECORD & LOG	(Version 6/9/08)
	THE MU	MBER				POD NUMBER	TRN NUMBER	
[FILENO							

FOR OSE INTERNAL USE	WELL RECORD & LOG (Version 6/9/08)			
FILE NUMBER	TRN NUMBER			
LOCATION			PAGE 2 OF 2	


WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

Zo	POD NUMBER (WELL NUMBER) SCHARB STATION MW-3										OSE FILE NUMBER(S)				
OCATI	WELL OW	MER NAM	(E(S) KET	TING LP							PHONE (OPTIONAL)				
WELL L	WELL OWNER MAILING ADDRESS 333 CLAY STREET, SUITE 1600														ZIP 2078
, GNA	WELL			DEGREES MINUTES SECONDS											
RAL	LOCATI (FROM C	ION GPS)	LAT	ITUDE		32		41	1	1.00 N	* ACCURACY * DATUM REC	REQUIRED. ONE TEN QUIRED: WGS 84	ITH OF A SEC	COND	I
GENE	DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS														
٦.	PEARL VALLEY ROAD OFF HWY 529 LEA COUNTY, NM														
	(2.5 ACI	RE)	((10 ACRE)	(40 ACRE)		(160 ACRE)		SECTION				RANGE	EAST
DNAL	SUBDIVISI	/4 ON NAM	E	1/4		1/4		1/4		LOT NUM	BER	BLOCK NUMBER	SOUTH	UNIT/TRA	CT WEST
OPTIC															
5	HYDROGRAPHIC SURVEY MA										MAP NUMBER		TRACT NL	IMBER	
	LICENSE NUMBER NAME OF LICENSED DRILLER										NAME OF WELL DR				
NO	DRILLING STARTED DRILLING ENDED					DEPTH OF COMPLETED WELL (FT) BORE HOLE DEPT					.E DEPTH (FT)	DEPTH WATER FIR	ST ENCOUN	TERED (FT)	
	4-31-10 4-31-10					45				45					
RMATI	COMPLETED WELL IS: ARTESIAN DRY HOLE SHALLOW (UNCONFINED)							NFINED)	STATIC WATER LEVEL IN COMPLETED WELL (FT)				_L (FT)		
INFO	DRILLING	FLUID:						ADDITIV	ES – SPEC	CIFY:					
DNI	DRILLING	METHOD): 	ROTARY				CABLET	OOL	ОТНЕ	R – SPECIFY:				
DRILL	FROM	H (FT) TO		DIA. (IN)	.Е	CASING MATERIAL			CONNECTION TYPE (CASING)		INSIDE DIA. CASING (IN)	CASING THICKN	G WALL ESS (IN)	SLOT SIZE (IN)	
÷												n	 		
<u> </u>	DEPT	<u></u> н (FT)	<u> </u>				OPMA				DINCIDAL W				
ΥTA	FROM	TO		(FT)	5	F*	(IN	CLUDE W	ATER-I	BEARING	CAVITIES O	R FRACTURE ZON	IRATA IES)		(GPM)
STR															
RING															
BEAI													· · · · · ·		
VTER	METHODI	USED TO	ESTIN	AATE YIELD OF	WATER	-BEARING STR						TOTAL ESTIMATED	WELL YIFT	D (GPM)	
4. WA														~ (01 m)	

FOR OSE INTERNAL USE		WELL RECORD & LOG (Version 6/9/08)					
FILE NUMBER	POD NUMBER	TRN NUMBER					
LOCATION		PAGE 1 OF 2					

AW	TYPE OF PUMP:		SUBMER	E	☐ JET ☐ CYLINDER	□ NO PUMP – WELL NOT EQUIPPED □ OTHER – SPECIFY:			
AND PL			DEPTH (FT) FROM TO		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT	
AL	SEAL	AND	2	45	2	1.5 BAGS OF 3/8 HOLEPLUG		TOPL	.OAD
. SE	GRAVEL PACK		0	2	2	1/4 BAG OF CEMENT		TOPL	.OAD
un .									
— —	DEPTH (FT)		тыск	NESS			ERED	11/4	
	FROM TO (FT)				(INCLU	JDE WATER-BEARING CAVITIES OR FRACT	JRE ZONES)	BEAR	UNG?
								S YES	□ NO
								YES	DN 🗌
								S YES	□ NO
								☐ YES	□ NO
L								☐ YES	🗆 NO
/ELI								T YES	
OF W									
go								U YES	□ NO
HC L								T YES	□ NO
100		_				·		☐ YES	🗖 NO
GEO								□ YES	□ NO
ė.								TYES	D NO
								T YES	DN 🔲
								T YES	D NO
								□ YES	О И 🔲
								☐ YES	
								☐ YES	D NO
<u> </u>			ATTACH	ADDITION	IAL PAGES AS NE	EDED TO FULLY DESCRIBE THE GEOLOGIC	LOG OF THE WELL		
0			METHOD:	🗌 BAILE		AIR LIFT OTHER - SPECIFY:			
NL INF	WELL	. TEST	TEST RESU AND A TAB	LTS - ATTA LE SHOWI	CH A COPY OF D NG DISCHARGE A	ATA COLLECTED DURING WELL TESTING, I NND DRAWDOWN OVER THE TESTING PERIC	NCLUDING START T	IME, END TI	ME,
NO	ADDITION	AL STATE	MENTS OR EXPL	ANATIONS:					
Ш	PLUGG	ING RE	PORT						
IQV	1 FT CA	ASING F	REMOVED						
T &									
TES									
	THE UN	DERSIGN	ED HERERY (FRTIFIES	THAT TO THE BE	ST OF HIS OR HER KNOW/LEDGE AND BELLE			ND
JRE	CORREC	T RECOR	D OF THE AB	OVE DESC	RIBED HOLE AND	THAT HE OR SHE WILL FILE THIS WELL RE	CORD WITH THE ST	ATE ENGINE	ER AND
ATI	THE EEF			20 DA 15 A	FIER COMPLETIC	JN OF WELL DRILLING:			
IGN		ní	L. At	al		5-5-10			
8. S	SIGNATURE OF DRILLER DATE								
			· · · · · · · · · · · · · · · · · · ·						

FOR OSE INTERNAL USE	WELL RECORD & LOG (Version 6/9/08)			
FILE NUMBER	POD NUMBER	TRN NUMBER		
LOCATION			PAGE 2 OF 2	



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

NO	POD NUMBER (WELL NUMBER) SCHARB STATION MW-4										OSE FILE NUMBER(S)				
OCATI	WELL OW	NER NAM	re(s) KETIN	IG LP						PHONE (OPTIONAL)					
WELL L	WELL OW 333 CL	NER MAII AY ST.	LING ADE	oress 7, SUITE	1600					CITY HOUSTO	N	state TX	77	ZIP 7078	
AL AND	WEL LOCATI	WELL I LOCATION LATITUDE			DEGREES		MINUTES 41	SECC	1.00 N	ACCURACY REQUIRED: ONE TENTH OF A SECOND					
I. GENEI	LONGITUDE 103 28 17.00 w Distribution registration DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS PEARL VALLEY ROAD OFF HWY 529 LEA COUNTY. NM														
VAL	(2.5 AC	(10 A	ACRE) 1/4	(40 ACR	(40 ACRE) (160 ACRE) 1/4 1/4			SECTION		TOWNSHIP		RANGE	EAST		
2. OPTIO	HYDROGRAPHIC SURVEY									1BER	MAP NUMBER		UNIT/TRA TRACT NI	CT JMBER	
	LICENSE NUMBER NAME OF LICENSED DRILLER								NAME OF WELL DRILLING COMPANY STRAUB CORPORATION						
NO	DRILLING STARTED DRILLING ENDED 4-31-10 4-31-10					DEPTH OF COMPLETED WELL (FT) BORE H			BORE HO	LE DEPTH (FT) 43	DEPTH WATER FIR	ST ENCOUN	TERED (FT)		
RMATIC	COMPLETED WELL IS ARTESIAN DRY HOLE SHALLOW (UNCONFINED)							ONFINED)	STATIC WATER LEVEL IN COMPLETED WELL (FI)				LL (FT)		
G INFO	DRILLING DRILLING	FLUID: METHOD		_air] rotary	<u></u> мі	JD .MMER		tiv <mark>es –</mark> spe e tool		R - SPECIFY:					
DRILLIN	DEPT FROM	TH (FT) TO		BORE HOL DIA. (IN)	E	CASING MATERIAL		CONNECTION TYPE (CASING)		INSIDE DIA. CASIN CASING (IN) THICK		G WALL IESS (IN)	SLOT SIZE (IN)		
Ľ															
	DEPT	TH (FT)			c			DESCRIP			ATER BEARINGS	TPATA			
RATA	FROM	то		(FT)			(INCLUDE	EWATER	-BEARING	CAVITIES O	R FRACTURE ZON	IES)		(GPM)	
NING ST															
R BEAF			_								······				
4. WATE	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA TOTAL ESTIMATED WELL YIELD (GPM)														

FOR OSE INTERNAL USE	WELL RECORD & LOG (Version 6/9/08)					
FILE NUMBER	POD NUMBER	TRN NUMBER				
LOCATION			PAGE 1 OF 2			

	TYPE OF PUMP:										
MU				2				<u></u>			
AND P	ANINICI	٨D	DEPTH FROM	(FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METH PLACE	OD OF MENT		
AL	ANNULAK SEAL AND GRAVEL PACK		2	43	2	1.5 BAGS OF 3/8 HOLEPLUG		TOPLOAD			
S. SE			0	2	2	1/4 BAG OF CEMENT		TOPL	.OAD		
	DEPTH ((FT)	THICK	NESS	1	COLOR AND TYPE OF MATERIAL ENCOUNTERED					
	FROM	TO	(FT)	(INCL)	JDE WATER-BEARING CAVITIES OR FRACTI	URE ZONES)	BEAR	UNG?		
								🗖 YES	ON □ NO		
								🗆 YES	🗖 NO		
								☐ YES	🗖 NO		
								🗆 YES	🗖 NO		
7						·····		I YES	D NO		
VEL						· · · · · · · · · · · · · · · · · · ·		T YES	D NO		
OF \								☐ YES	DN 🔲		
00,						······································		T YES	🔲 NO		
SIC I				_				☐ YES	D NO		
LOC								T YES	DNO		
GEO								☐ YES	□ NO		
6.0								T YES	🔲 NO		
								VES	D NO		
								🗖 YES	🗆 NO		
								T YES	□ NO		
								TYES	NO 🔲		
								☐ YES	🗆 NO		
			ATTACH	ADDITION	IAL PAGES AS NE	EDED TO FULLY DESCRIBE THE GEOLOGIC	LOG OF THE WELL				
			METHOD:	BAILE		AIR LIFT OTHER - SPECIFY:					
INFO	WELL TI	EST	TEST RESUL	LTS - ATTA	CH A COPY OF D	ATA COLLECTED DURING WELL TESTING,	INCLUDING START T	IME, END TI	ME,		
NAL			ANDATAB	LE SHOWI	NG DISCHARGE /	AND DRAWDOWN OVER THE TESTING PERIO	JD.				
TIO			AENTS OR EXPLA	ANATIONS.							
IQQ	1 FT CAS		REMOVED								
& A											
EST											
7. T						•					
RE	THE UNDE CORRECT	RECOR	D HEREBY C	ERTIFIES 1	THAT, TO THE BE RIBED HOLE AND	ST OF HIS OR HER KNOWLEDGE AND BELIE D THAT HE OR SHE WILL FILE THIS WELL RE	F, THE FOREGOING IS CORD WITH THE STA	S A TRUE A	ND EER AND		
1TU	THE PERM	IT HOL	DER WITHIN :	20 DAYS A	FTER COMPLETI	ON OF WELL DRILLING:					
GN	m	. +	· It	K		5-5-10					
8. SI		<u>ovr</u>	SIGNATUR		ED						
			SIGNATUR		.eK	DATE					
						· · ·					

FOR OSE INTERNAL USE	WELL RECORD & LOG (Version 6/9/08)				
FILE NUMBER	POD NUMBER	TRN NUMBER			
LOCATION			PAGE 2 OF 2		

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

State of New Mexico Energy Minerals and Natural Resources

> Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-141 Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

			Rele	ease Notific	ation and	Co	orrective A	ction				
					OPE	RA	FOR	D	🛛 Initi	ial Report		Final Report
Name of Co	mpany	Plains Mark	eting, LI)	Contac	Contact Daniel Bryant						
Address P.O. Box 3119 – Midland, Tx 79702 7					Teleph	one l	No. (432) 557-5	5865				
Facility Nat	ne	Scharb Stati	on Overf	ill	Facility	ү Тур	e Truck Statio	on				
Surface Ow	Surface Owner E.P. Caudill Mineral Owner								Lease 1	No.		
				LOCA	TION OF	REI	LEASE					
Unit Letter P	Section 5	Township 19S	Range 35E	Feet from the	North/South L	h/South Line Feet from the East/West L		est Line	County Lea			
	I	J	La	titude N 32.687	00000° Long	itude	W 103.47095	5000°				
				NAT	URE OF R	EL	EASE		,			
Type of Rele	ase Cru	de Oil			Volu	me of	Release 18 bbls	5	Volume	Recovered	3 bbls	
Source of Release Tank at Scharb Truck Station						Date and Hour of Occurrence 08/09/2008		ce (Date and Hour of Discovery 08/09/2008 01:00			
Was Immedia	ate Notice C	Given?			If YE	If YES, To Whom?						
		\boxtimes	Yes	No Not Re	ouired Larry	Larry Johnson (left message)						

Date and Hour

08/11/2008 09:30

If YES, Volume Impacting the Watercourse.

If a Watercourse was Impacted, Describe Fully.*

By Whom? Daniel Bryant

Was a Watercourse Reached?

Describe Cause of Problem and Remedial Action Taken.*

Crude oil was released when the tank was overfilled by a transport unloading at the facility.

□ Yes 🖾 No

Describe Area Affected and Cleanup Action Taken.* . Visible staining from the release measured approx. 35' X 25'.

All released materials were contained inside the secondary containment.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

	<u>OIL CO</u>	OIL CONSERVATION DIVISION					
Signature:							
Printed Name: Daniel Bryant	Approved by District Super	Approved by District Supervisor:					
Title: Environmental R/C Specialist	Approval Date:	Approval Date: Expiration Date:					
E-mail Address: dmbryant@paalp.com	Conditions of Approval:		Attached				
Date: Phone: (432) 55	7-5865						

* Attach Additional Sheets If Necessary