

**GW - 351
Landfarm
MONITORING
REPORTS
(Analytical
Results)
2010**

Analytical Report 375947

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

10-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)



10-JUN-10

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

Reference: XENCO Report No: **375947**
Lea Station Landfarm
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 375947. 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. 375947 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 375947



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell A G-1	S	Jun-07-10 08:00		375947-001
TZ Cell A G-2	S	Jun-07-10 08:05		375947-002
TZ Cell A G-3	S	Jun-07-10 08:10		375947-003
TZ Cell A G-4	S	Jun-07-10 08:15		375947-004
TZ Cell A G-5	S	Jun-07-10 08:20		375947-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 375947

Report Date: 10-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-809677 Percent Moisture

None

Batch: LBA-809858 TPH by SW8015 Mod
SW8015MOD_NM

Batch 809858, C12-C28 Diesel Range Hydrocarbons RPD was outside QC limits.
Samples affected are: 375947-002, -005, -003, -001, -004

SW8015MOD_NM

Batch 809858, 1-Chlorooctane recovered above QC limits . Matrix interferences is suspected;
data not confirmed by re-analysis
Samples affected are: 376021-001 S.

SW8015MOD_NM

Batch 809858, C12-C28 Diesel Range Hydrocarbons recovered above QC limits in the Matrix Spike. C6-C12 Gasoline Range Hydrocarbons recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 375947-002, -005, -003, -001, -004.
The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons, C6-C12 Gasoline Range Hydrocarbons is within laboratory Control Limits

Batch: LBA-809945 Inorganic Anions by EPA 300
None



Certificate of Analysis Summary 375947

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Mon Jun-07-10 04:15 pm

Report Date: 10-JUN-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	Extracted:	Analyzed:	Units/RL:	375947-001	375947-002	375947-003	375947-004	375947-005
Inorganic Anions In Soil by E300		TZ Cell A G-1	Jun-07-10 08:00	SOIL	Jun-07-10 08:05	Jun-08-10 18:05	Jun-08-10 13:10	mg/kg	32.3	47.1	36.5	11.4	21.4
								RL	5.15	5.17	5.14	5.17	5.15
Percent Moisture								%	2.85	3.21	2.70	3.35	2.86
								RL	1.00	1.00	1.00	1.00	1.00
TPH by SW8015 Mod								mg/kg	786	1200	901	124	428
								RL	146	174	147	35.5	92.7
C6-C12 Gasoline Range Hydrocarbons								mg/kg	932	1374	1048	160	521
								RL	15.4	15.6	15.4	15.4	15.5
C12-C28 Diesel Range Hydrocarbons								mg/kg	ND	ND	ND	ND	ND
								RL	15.4	15.6	15.4	15.4	15.5
C28-C35 Oil Range Hydrocarbons								mg/kg	ND	ND	ND	ND	ND
								RL	15.4	15.6	15.4	15.4	15.5
Total TPH													

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 in-cited for this work order unless otherwise agreed to in writing.

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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

* Outside XENCO's scope of NELAC Accreditation.

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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375947,

Project ID: 2004-00061

Lab Batch #: 809858

Sample: 565239-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/08/10 21:59				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	51.5	50.2	103	70-135	

Lab Batch #: 809858

Sample: 565239-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/08/10 22:26				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.5	110	70-135	
o-Terphenyl	51.2	49.8	103	70-135	

Lab Batch #: 809858

Sample: 565239-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/08/10 22:53				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	55.3	50.0	111	70-135	

Lab Batch #: 809858

Sample: 375947-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/08/10 23:20				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	56.0	50.0	112	70-135	

Lab Batch #: 809858

Sample: 375947-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/08/10 23:46				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	101	123	70-135	
o-Terphenyl	59.0	50.3	117	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375947,

Project ID: 2004-00061

Lab Batch #: 809858

Sample: 375947-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	121	99.7	121	70-135	
o-Terphenyl	57.8	49.9	116	70-135	

Lab Batch #: 809858

Sample: 375947-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	113	99.5	114	70-135	
o-Terphenyl	54.2	49.8	109	70-135	

Lab Batch #: 809858

Sample: 375947-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	54.8	50.3	109	70-135	

Lab Batch #: 809858

Sample: 376021-001 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	139	99.7	139	70-135	*
o-Terphenyl	64.1	49.9	128	70-135	

Lab Batch #: 809858

Sample: 376021-001 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	133	100	133	70-135	
o-Terphenyl	60.7	50.0	121	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: Lea Station Landfarm

Work Order #: 375947

Analyst: LATCOR

Lab Batch ID: 809945

Sample: 809945-1-BKS

Batch #: 1

Date Prepared: 06/08/2010

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.18	92	10	9.81	98	7	75-125	20	

Analyst: BEV

Date Prepared: 06/08/2010

Date Analyzed: 06/08/2010

Lab Batch ID: 809858

Sample: 565239-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	1170	117	995	1170	118	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	998	100	995	1090	110	9	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 375947

Lab Batch #: 809945

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: LATCOR

QC- Sample ID: 375947-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	32.3	103	145	109	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Lea Station Landfarm



Work Order #: 375947

Project ID: 2004-00061

Lab Batch ID: 809858

QC-Sample ID: 376021-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/09/2010

Date Prepared: 06/08/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	TPH by SW8015 Mod	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
		ND	1170	1780	152	1170	1630	139	9	70-135	35	X
C6-C12 Gasoline Range Hydrocarbons		406	1170	3230	241	1170	1570	99	69	70-135	35	XF
C12-C28 Diesel Range Hydrocarbons												

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

Matrix Spike Duplicate Percent Recovery [G] $100 \times (F-A) / E$

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 375947

Lab Batch #: 809945

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: LATCOR

QC- Sample ID: 375947-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	32.3	31.2	3	20	

Lab Batch #: 809677

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: JLG

QC- Sample ID: 375808-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.99	3.07	3	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



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: Basin Env. / Plains
 Date/Time: 6.7.10 16:15
 Lab ID #: 375947
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>4.1</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 375948

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

10-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)

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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)

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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)



10-JUN-10

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

Reference: XENCO Report No: **375948**
Lea Station Landfarm
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 375948. 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.

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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. 375948 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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



Sample Cross Reference 375948



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell B G-1	S	Jun-07-10 08:45		375948-001
TZ Cell B G-2	S	Jun-07-10 08:50		375948-002
TZ Cell B G-3	S	Jun-07-10 08:55		375948-003
TZ Cell B G-4	S	Jun-07-10 09:00		375948-004



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 375948

Report Date: 10-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-809677 Percent Moisture

None

Batch: LBA-809858 TPH by SW8015 Mod
SW8015MOD_NM

Batch 809858, C12-C28 Diesel Range Hydrocarbons RPD was outside QC limits.
Samples affected are: 375948-002, -001, -004, -003

SW8015MOD_NM

Batch 809858, 1-Chlorooctane recovered above QC limits . Matrix interferences is suspected;
data not confirmed by re-analysis
Samples affected are: 376021-001 S.

SW8015MOD_NM

Batch 809858, C12-C28 Diesel Range Hydrocarbons recovered above QC limits in the Matrix Spike. C6-C12 Gasoline Range Hydrocarbons recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 375948-002, -001, -004, -003.
The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons, C6-C12 Gasoline Range Hydrocarbons is within laboratory Control Limits

Batch: LBA-809945 Inorganic Anions by EPA 300
None

Certificate of Analysis Summary 375948

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lea Station Landfarm

Project Id: 2004-00061
 Contact: Jason Henry
 Project Location: Lea County, NM

Date Received in Lab: Mon Jun-07-10 04:15 pm
 Report Date: 10-JUN-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	Extracted:	Analyzed:	Units/RL:
Inorganic Anions In Soil by E300		375948-001	TZ Cell B G-1		SOIL	Jun-07-10 08:45	Jun-08-10 18:05	mg/kg	RL
		8.95	5.17						
Percent Moisture		375948-002	TZ Cell B G-2		SOIL	Jun-07-10 08:50	Jun-08-10 18:05	mg/kg	RL
		12.1	5.23						
Percent Moisture		375948-003	TZ Cell B G-3		SOIL	Jun-07-10 08:55	Jun-08-10 18:05	mg/kg	RL
		15.5	5.31						
TPH by SW8015 Mod		375948-004	TZ Cell B G-4		SOIL	Jun-07-10 09:00	Jun-08-10 18:05	mg/kg	RL
		17.3	5.12						
C6-C12 Gasoline Range Hydrocarbons		375948-001	TZ Cell B G-1		SOIL	Jun-07-10 08:45	Jun-08-10 18:05	mg/kg	RL
		ND	15.4						
C12-C28 Diesel Range Hydrocarbons		375948-001	TZ Cell B G-1		SOIL	Jun-07-10 08:45	Jun-08-10 18:05	mg/kg	RL
		1430	15.4						
C28-C35 Oil Range Hydrocarbons		375948-001	TZ Cell B G-1		SOIL	Jun-07-10 08:45	Jun-08-10 18:05	mg/kg	RL
		199	15.4						
Total TPH		375948-001	TZ Cell B G-1		SOIL	Jun-07-10 08:45	Jun-08-10 18:05	mg/kg	RL
		1629	15.4						

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

* Outside XENCO's scope of NELAC Accreditation.

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Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

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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



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375948,

Project ID: 2004-00061

Lab Batch #: 809858

Sample: 565239-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/08/10 21:59	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		110	100	110	70-135	
o-Terphenyl		51.5	50.2	103	70-135	

Lab Batch #: 809858

Sample: 565239-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/08/10 22:26	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		109	99.5	110	70-135	
o-Terphenyl		51.2	49.8	103	70-135	

Lab Batch #: 809858

Sample: 565239-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/08/10 22:53	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		111	100	111	70-135	
o-Terphenyl		55.3	50.0	111	70-135	

Lab Batch #: 809858

Sample: 375948-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/09/10 01:32	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		116	99.6	116	70-135	
o-Terphenyl		56.7	49.8	114	70-135	

Lab Batch #: 809858

Sample: 375948-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/09/10 01:59	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		117	99.5	118	70-135	
o-Terphenyl		56.0	49.8	112	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375948,

Project ID: 2004-00061

Lab Batch #: 809858

Sample: 375948-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/09/10 02:26		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		108	100	108	70-135	
o-Terphenyl		53.6	50.2	107	70-135	

Lab Batch #: 809858

Sample: 375948-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/09/10 02:53		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		113	99.8	113	70-135	
o-Terphenyl		54.5	49.9	109	70-135	

Lab Batch #: 809858

Sample: 376021-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/09/10 08:40		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		139	99.7	139	70-135	*
o-Terphenyl		64.1	49.9	128	70-135	

Lab Batch #: 809858

Sample: 376021-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/09/10 09:08		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		133	100	133	70-135	
o-Terphenyl		60.7	50.0	121	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: Lea Station Landfarm

Work Order #: 375948

Analyst: LATCOR

Lab Batch ID: 809945

Sample: 809945-1-BKS

Batch #: 1

Date Prepared: 06/08/2010

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.18	92	10	9.81	98	7	75-125	20	

Analyst: BEV

Date Prepared: 06/08/2010

Date Analyzed: 06/08/2010

Lab Batch ID: 809858

Sample: 565239-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	1170	117	995	1170	118	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	998	100	995	1090	110	9	70-135	35	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 375948

Lab Batch #: 809945

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: LATCOR

QC- Sample ID: 375947-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	32.3	103	145	109	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Lea Station Landfarm

Work Order #: 375948

Project ID: 2004-00061

Lab Batch ID: 809858

QC-Sample ID: 376021-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/09/2010

Date Prepared: 06/08/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	TPH by SW8015 Mod	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
		ND	1170	1780	152	1170	1630	139	9	70-135	35	X
C6-C12 Gasoline Range Hydrocarbons		406	1170	3230	241	1170	1570	99	69	70-135	35	XF
C12-C28 Diesel Range Hydrocarbons												

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 375948

Lab Batch #: 809945

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: LATCOR

QC- Sample ID: 375947-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	32.3	31.2	3	20	

Lab Batch #: 809677

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: JLG

QC- Sample ID: 375808-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.99	3.07	3	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



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: Basin Env. / Plains
 Date/Time: 6-7-10 16:15
 Lab ID #: 375948
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>4.1</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 375949

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

10-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)



10-JUN-10

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

Reference: XENCO Report No: **375949**
Lea Station Landfarm
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 375949. 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. 375949 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.

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Sample Cross Reference 375949



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell D G-1	S	Jun-07-10 09:25		375949-001
TZ Cell D G-2	S	Jun-07-10 09:30		375949-002
TZ Cell D G-3	S	Jun-07-10 09:35		375949-003
TZ Cell D G-4	S	Jun-07-10 09:40		375949-004
TZ Cell D G-5	S	Jun-07-10 09:45		375949-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061

Work Order Number: 375949

Report Date: 10-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-809677 Percent Moisture

None

Batch: LBA-809858 TPH by SW8015 Mod

SW8015MOD_NM

Batch 809858, C12-C28 Diesel Range Hydrocarbons RPD was outside QC limits.

Samples affected are: 375949-002, -005, -004, -001, -003

SW8015MOD_NM

Batch 809858, C12-C28 Diesel Range Hydrocarbons recovered above QC limits in the Matrix Spike. C6-C12 Gasoline Range Hydrocarbons recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 375949-002, -005, -004, -001, -003.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons, C6-C12 Gasoline Range Hydrocarbons is within laboratory Control Limits

SW8015MOD_NM

Batch 809858, 1-Chlorooctane recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376021-001 S.

Batch: LBA-809945 Inorganic Anions by EPA 300

None



Certificate of Analysis Summary 375949

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Mon Jun-07-10 04:15 pm

Report Date: 10-JUN-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	375949-001	Field Id:	TZ Cell D G-1	375949-002	TZ Cell D G-2	375949-003	TZ Cell D G-3	375949-004	TZ Cell D G-4	375949-005	TZ Cell D G-5
	Depth:		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL <th>SOIL</th> <td>SOIL</td>	SOIL	SOIL
Inorganic Anions In Soil by E300	Sampled:	Jun-07-10 09:25	Sampled:	Jun-07-10 09:30	Sampled:	Jun-07-10 09:35	Sampled:	Jun-07-10 09:40	Sampled:	Jun-07-10 09:45	Sampled:	Jun-07-10 09:45
	Extracted:		Extracted:		Extracted:		Extracted:		Extracted:		Extracted:	
Chloride	Analyzed:	Jun-08-10 18:05	Analyzed:	Jun-08-10 18:05								
	Units/RL:	mg/kg RL 35.1 5.11	Units/RL:	mg/kg RL 31.3 5.11	Units/RL:	mg/kg RL 50.2 5.12	Units/RL:	mg/kg RL 20.6 5.10	Units/RL:	mg/kg RL 10.6 5.08	Units/RL:	mg/kg RL 10.6 5.08
Percent Moisture	Extracted:		Extracted:									
	Analyzed:	Jun-08-10 13:10	Analyzed:	Jun-08-10 13:10								
TPH by SW8015 Mod	Units/RL:	% RL 2.19 1.00	Units/RL:	% RL 2.23 1.00	Units/RL:	% RL 2.38 1.00	Units/RL:	% RL 2.00 1.00	Units/RL:	% RL 1.54 1.00	Units/RL:	% RL 1.54 1.00
	Extracted:	Jun-08-10 12:45	Extracted:	Jun-08-10 12:45								
C6-C12 Gasoline Range Hydrocarbons	Analyzed:	Jun-09-10 03:20	Analyzed:	Jun-09-10 04:13	Analyzed:	Jun-09-10 04:40	Analyzed:	Jun-09-10 05:06	Analyzed:	Jun-09-10 05:33	Analyzed:	Jun-09-10 05:33
	Units/RL:	mg/kg RL ND 15.4	Units/RL:	mg/kg RL ND 15.4	Units/RL:	mg/kg RL ND 15.4	Units/RL:	mg/kg RL ND 15.3	Units/RL:	mg/kg RL ND 15.2	Units/RL:	mg/kg RL ND 15.2
C12-C28 Diesel Range Hydrocarbons	Extracted:		Extracted:									
	Analyzed:	Jun-08-10 12:45	Analyzed:	Jun-08-10 12:45								
C28-C35 Oil Range Hydrocarbons	Units/RL:	707 15.4	Units/RL:	685 15.4	Units/RL:	1230 15.4	Units/RL:	1230 15.3	Units/RL:	1260 15.2	Units/RL:	1260 15.2
	Extracted:		Extracted:		Extracted:		Extracted:		Extracted:		Extracted:	
Total TPH	Analyzed:	112 15.4	Analyzed:	99.5 15.4	Analyzed:	156 15.4	Analyzed:	150 15.3	Analyzed:	140 15.2	Analyzed:	140 15.2
	Units/RL:	819 15.4	Units/RL:	785 15.4	Units/RL:	1386 15.4	Units/RL:	1380 15.3	Units/RL:	1400 15.2	Units/RL:	1400 15.2

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

* Outside XENCO's scope of NELAC Accreditation.

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	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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375949,

Project ID: 2004-00061

Lab Batch #: 809858

Sample: 565239-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/08/10 21:59				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	51.5	50.2	103	70-135	

Lab Batch #: 809858

Sample: 565239-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/08/10 22:26				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.5	110	70-135	
o-Terphenyl	51.2	49.8	103	70-135	

Lab Batch #: 809858

Sample: 565239-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/08/10 22:53				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	55.3	50.0	111	70-135	

Lab Batch #: 809858

Sample: 375949-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 03:20				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	101	114	70-135	
o-Terphenyl	55.2	50.3	110	70-135	

Lab Batch #: 809858

Sample: 375949-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 04:13				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	54.7	50.2	109	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375949,

Project ID: 2004-00061

Lab Batch #: 809858

Sample: 375949-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 04:40				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	55.0	50.2	110	70-135	

Lab Batch #: 809858

Sample: 375949-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 05:06				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	99.7	116	70-135	
o-Terphenyl	56.9	49.9	114	70-135	

Lab Batch #: 809858

Sample: 375949-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 05:33				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.5	111	70-135	
o-Terphenyl	52.8	49.8	106	70-135	

Lab Batch #: 809858

Sample: 376021-001 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 08:40				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	139	99.7	139	70-135	*
o-Terphenyl	64.1	49.9	128	70-135	

Lab Batch #: 809858

Sample: 376021-001 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 09:08				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	133	100	133	70-135	
o-Terphenyl	60.7	50.0	121	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: Lea Station Landfarm

Work Order #: 375949

Analyst: LATCOR

Lab Batch ID: 809945

Sample: 809945-1-BKS

Batch #: 1

Date Prepared: 06/08/2010

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.18	92	10	9.81	98	7	75-125	20	

Analyst: BEV

Date Prepared: 06/08/2010

Date Analyzed: 06/08/2010

Lab Batch ID: 809858

Sample: 565239-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	1170	117	995	1170	118	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	998	100	995	1090	110	9	70-135	35	

Relative Percent Difference $RPD = 200 * [(C-F)/(C+F)]$

Blank Spike Recovery $[D] = 100 * (C)/[B]$

Blank Spike Duplicate Recovery $[G] = 100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 375949

Lab Batch #: 809945

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: LATCOR

QC- Sample ID: 375947-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	32.3	103	145	109	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Lea Station Landfarm



Work Order #: 375949

Project ID: 2004-00061

Lab Batch ID: 809858

QC-Sample ID: 376021-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/09/2010

Date Prepared: 06/08/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Analytes	TPH by SW8015 Mod	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		ND	1170	1780	152	1170	1630	139	9	70-135
C12-C28 Diesel Range Hydrocarbons		406	1170	3230	241	1170	1570	99	69	70-135	35	XF

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

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 375949

Lab Batch #: 809945

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: LATCOR

QC- Sample ID: 375947-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	32.3	31.2	3	20	

Lab Batch #: 809677

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: JLG

QC- Sample ID: 375808-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.99	3.07	3	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 of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant

Company Name: Basin Environmental Consulting, LLC

Company Address: P.O. Box 381

City/State/Zip: Lovington, NM 88260

Telephone No.: (575)605-7210

Sampler Signature: 

Fax No.: (505) 396-1429

e-mail: cibryant@basin-consulting.com

Project Name: Lea Station Landfarm

Project #: 2004-00061

Project Loc: Lea County, NM

PO #: PAA - J. Henry

Report Format: Standard TRRP NPDES

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers							Matrix	Analyze For:	
								HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)			DW - Drinking Water - Sl - Sludge
1	TZ Cell D G-1			6/7/10	0925		1	X							SOIL	TPH: 418.1 <u>8015M</u> 8015B TPH: TX 1005 TX 1006 Cations (Ca, Mg, Na, K) Anions (Cl, SO ₄ , Alkalinity) SAR / ESP / CEC Metals: As Ag Ba Cd Cr Pb Hg Se Volatiles Semivolatiles BTEX 8021B/5030 or BTEX 8260	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs Standard TAT 4 DAY
2	TZ Cell D G-2			6/7/10	0930		1	X							SOIL		
3	TZ Cell D G-3			6/7/10	0935		1	X							SOIL		
4	TZ Cell D G-4			6/7/10	0940		1	X							SOIL		
5	TZ Cell D G-5			6/7/10	0945		1	X							SOIL		

ORDER #: 375949

Special Instructions:

Relinquished by: _____ Date: 6-7-10 Time: 4:15
 Relinquished by: _____ Date: _____ Time: _____
 Relinquished by:  Date: 6-7-10 Time: 10:15

Laboratory Comments:
 Sample Containers Impact? N
 VOCs Free of Headspace? N
 Labels on containers? N
 Custody seals on container(s) N
 Custody seals on cooler(s) N
 Sample Hand Delivered N
 by Sampler/Client Rep. ? N
 by Courier? N UPS N DHL N FedEx N Lone Star
 Temperature Upon Receipt: 4.1 °C



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: Basin Env. / Plains
 Date/Time: 6-7-10 16:15
 Lab ID #: 375949
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>4.1</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 375950

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

10-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)



10-JUN-10

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

Reference: XENCO Report No: **375950**
Lea Station Landfarm
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 375950. 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. 375950 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.

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Sample Cross Reference 375950



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell E G-1	S	Jun-07-10 10:10		375950-001
TZ Cell E G-2	S	Jun-07-10 10:15		375950-002
TZ Cell E G-3	S	Jun-07-10 10:20		375950-003



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 375950

Report Date: 10-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-809824 Percent Moisture

None

Batch: LBA-809858 TPH by SW8015 Mod
SW8015MOD_NM

Batch 809858, 1-Chlorooctane recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 376021-001 S.

SW8015MOD_NM

Batch 809858, C12-C28 Diesel Range Hydrocarbons recovered above QC limits in the Matrix Spike. C6-C12 Gasoline Range Hydrocarbons recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 375950-003, -001, -002.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons, C6-C12 Gasoline Range Hydrocarbons is within laboratory Control Limits

SW8015MOD_NM

Batch 809858, C12-C28 Diesel Range Hydrocarbons RPD was outside QC limits.

Samples affected are: 375950-003, -001, -002

Batch: LBA-809945 Inorganic Anions by EPA 300

None



Certificate of Analysis Summary 375950

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2004-00061
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Mon Jun-07-10 04:15 pm
Report Date: 10-JUN-10
Project Manager: Brent Barron, II

<i>Analysis Requested</i>		Lab Id:	375950-001	375950-002	375950-003
		<i>Field Id:</i>	TZ Cell E G-1	TZ Cell E G-2	TZ Cell E G-3
		<i>Depth:</i>			
		<i>Matrix:</i>	SOIL	SOIL	SOIL
		<i>Sampled:</i>	Jun-07-10 10:10	Jun-07-10 10:15	Jun-07-10 10:20
		<i>Extracted:</i>			
		<i>Analyzed:</i>	Jun-08-10 18:05	Jun-08-10 18:05	Jun-08-10 18:05
		<i>Units/RL:</i>	mg/kg RL 14.3 5.15	mg/kg RL 13.3 5.09	mg/kg RL 8.12 5.09
		<i>Extracted:</i>			
		<i>Analyzed:</i>	Jun-09-10 08:30	Jun-09-10 08:30	Jun-09-10 08:30
		<i>Units/RL:</i>	% RL 2.95 1.00	% RL 1.69 1.00	% RL 1.69 1.00
		<i>Extracted:</i>			
		<i>Analyzed:</i>	Jun-08-10 12:45	Jun-08-10 12:45	Jun-08-10 12:45
		<i>Units/RL:</i>	mg/kg RL ND 15.4	mg/kg RL ND 75.9	mg/kg RL ND 15.2
		<i>Extracted:</i>			
		<i>Analyzed:</i>	Jun-09-10 06:53	Jun-09-10 07:20	Jun-09-10 07:47
		<i>Units/RL:</i>	mg/kg RL 281 15.4	mg/kg RL 326 75.9	mg/kg RL 139 15.2
		<i>Extracted:</i>			
		<i>Analyzed:</i>	Jun-08-10 12:45	Jun-08-10 12:45	Jun-08-10 12:45
		<i>Units/RL:</i>	mg/kg RL 61.0 15.4	mg/kg RL ND 75.9	mg/kg RL 35.4 15.2
		<i>Extracted:</i>			
		<i>Analyzed:</i>	Jun-09-10 06:53	Jun-09-10 07:20	Jun-09-10 07:47
		<i>Units/RL:</i>	mg/kg RL 342 15.4	mg/kg RL 326 75.9	mg/kg RL 174 15.2
Inorganic Anions In Soil by E300					
Chloride					
Percent Moisture					
Percent Moisture					
TPH by SW8015 Mod					
C6-C12 Gasoline Range Hydrocarbons					
C12-C28 Diesel Range Hydrocarbons					
C28-C35 Oil Range Hydrocarbons					
Total TPH					

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.

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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

* Outside XENCO's scope of NELAC Accreditation.

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, 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



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375950,

Project ID: 2004-00061

Lab Batch #: 809858

Sample: 565239-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/08/10 21:59

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	51.5	50.2	103	70-135	

Lab Batch #: 809858

Sample: 565239-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/08/10 22:26

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.5	110	70-135	
o-Terphenyl	51.2	49.8	103	70-135	

Lab Batch #: 809858

Sample: 565239-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/08/10 22:53

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	55.3	50.0	111	70-135	

Lab Batch #: 809858

Sample: 375950-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/09/10 06:53

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.5	118	70-135	
o-Terphenyl	56.3	49.8	113	70-135	

Lab Batch #: 809858

Sample: 375950-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/09/10 07:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	99.5	105	70-135	
o-Terphenyl	54.0	49.8	108	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.



Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 375950,

Project ID: 2004-00061

Lab Batch #: 809858

Sample: 375950-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/09/10 07:47

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.9	114	70-135	
o-Terphenyl	54.1	50.0	108	70-135	

Lab Batch #: 809858

Sample: 376021-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/09/10 08:40

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	139	99.7	139	70-135	*
o-Terphenyl	64.1	49.9	128	70-135	

Lab Batch #: 809858

Sample: 376021-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/09/10 09:08

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	133	100	133	70-135	
o-Terphenyl	60.7	50.0	121	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: Lea Station Landfarm

Work Order #: 375950

Analyst: LATCOR

Lab Batch ID: 809945

Sample: 809945-1-BKS

Batch #: 1

Date Prepared: 06/08/2010

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.18	92	10	9.81	98	7	75-125	20	

Analyst: BEV

Date Prepared: 06/08/2010

Date Analyzed: 06/08/2010

Lab Batch ID: 809858

Sample: 565239-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	1170	117	995	1170	118	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	998	100	995	1090	110	9	70-135	35	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 375950

Lab Batch #: 809945

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: LATCOR

QC- Sample ID: 375947-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	32.3	103	145	109	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Lea Station Landfarm



Work Order #: 375950

Project ID: 2004-00061

Lab Batch ID: 809858

QC-Sample ID: 376021-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/09/2010

Date Prepared: 06/08/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY 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	ND	1170	1780	152	1170	1630	139	9	70-135	35
C12-C28 Diesel Range Hydrocarbons	406	1170	3230	241	1170	1570	99	69	70-135	35	XF

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 375950

Lab Batch #: 809945

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: LATCOR

QC- Sample ID: 375947-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	32.3	31.2	3	20	

Lab Batch #: 809824

Date Analyzed: 06/09/2010

Date Prepared: 06/09/2010

Analyst: JLG

QC- Sample ID: 375950-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.95	3.02	2	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



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: Basin Env. / Plains
 Date/Time: 6-7-10 16:15
 Lab ID #: 375950
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>4.1</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 375952

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

14-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)



14-JUN-10

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

Reference: XENCO Report No: **375952**
Lea Station Landfarm
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 375952. 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. 375952 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 375952



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell F G-1	S	Jun-07-10 10:45		375952-001
TZ Cell F G-2	S	Jun-07-10 10:50		375952-002
TZ Cell F G-3	S	Jun-07-10 10:55		375952-003
TZ Cell F G-4	S	Jun-07-10 11:00		375952-004
TZ Cell F G-5	S	Jun-07-10 11:05		375952-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 375952

Report Date: 14-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-809824 Percent Moisture

None

Batch: LBA-809945 Inorganic Anions by EPA 300

None

Batch: LBA-809949 Inorganic Anions by EPA 300

None

Batch: LBA-810371 TPH by SW8015 Mod
SW8015MOD_NM

*Batch 810371, 1-Chlorooctane recovered below QC limits . Matrix interferences is suspected;
data confirmed by re-analysis*

Samples affected are: 375952-001.



Certificate of Analysis Summary 375952

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Mon Jun-07-10 04:15 pm

Report Date: 14-JUN-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		Lab Id:	375952-001	375952-002	375952-003	375952-004	375952-005
		Field Id:	TZ Cell F G-1	TZ Cell F G-2	TZ Cell F G-3	TZ Cell F G-4	TZ Cell F G-5
		Depth:					
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	Jun-07-10 10:45	Jun-07-10 10:50	Jun-07-10 10:55	Jun-07-10 11:00	Jun-07-10 11:05
		Extracted:					
		Analyzed:	Jun-08-10 18:05	Jun-08-10 18:05	Jun-09-10 03:32	Jun-09-10 03:32	Jun-09-10 03:32
		Units/RL:	mg/kg RL 79.8 5.15	mg/kg RL 71.4 5.13	mg/kg RL 54.7 5.12	mg/kg RL 22.9 5.12	mg/kg RL 20.3 5.11
		Chlordane					
		Percent Moisture					
		Extracted:					
		Analyzed:	Jun-09-10 08:30				
		Units/RL:	% RL 2.84 1.00	% RL 2.45 1.00	% RL 2.41 1.00	% RL 2.35 1.00	% RL 2.22 1.00
		Percent Moisture					
		TPH by SW8015 Mod					
		Extracted:	Jun-10-10 10:15				
		Analyzed:	Jun-10-10 19:55	Jun-10-10 20:26	Jun-10-10 20:57	Jun-11-10 08:09	Jun-11-10 08:39
		Units/RL:	mg/kg RL ND 15.4	mg/kg RL ND 15.3	mg/kg RL ND 15.4	mg/kg RL 123 15.3	mg/kg RL ND 15.3
		C6-C12 Gasoline Range Hydrocarbons					
		C12-C28 Diesel Range Hydrocarbons	379 15.4	864 15.3	1020 15.4	933 15.3	605 15.3
		C28-C35 Oil Range Hydrocarbons	40.2 15.4	73.2 15.3	67.4 15.4	204 15.3	64.1 15.3
		Total TPH	419 15.4	937 15.3	1087 15.4	1260 15.3	669 15.3

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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.

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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



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375952,

Project ID: 2004-00061

Lab Batch #: 810371

Sample: 565564-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/10/10 18:17	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		118	101	117	70-135	
o-Terphenyl		56.7	50.3	113	70-135	

Lab Batch #: 810371

Sample: 565564-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/10/10 18:50	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		118	99.5	119	70-135	
o-Terphenyl		57.0	49.8	114	70-135	

Lab Batch #: 810371

Sample: 565564-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/10/10 19:23	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		101	99.9	101	70-135	
o-Terphenyl		58.6	50.0	117	70-135	

Lab Batch #: 810371

Sample: 375952-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/10/10 19:55	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		59.3	100	59	70-135	**
o-Terphenyl		35.1	50.0	70	70-135	

Lab Batch #: 810371

Sample: 375952-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/10/10 20:26	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		92.8	99.5	93	70-135	
o-Terphenyl		52.0	49.8	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375952,

Project ID: 2004-00061

Lab Batch #: 810371

Sample: 375952-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/10/10 20:57

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	57.1	50.0	114	70-135	

Lab Batch #: 810371

Sample: 375952-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/10 08:09

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.8	106	70-135	
o-Terphenyl	59.9	49.9	120	70-135	

Lab Batch #: 810371

Sample: 375952-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/10 08:39

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.7	99.5	89	70-135	
o-Terphenyl	49.5	49.8	99	70-135	

Lab Batch #: 810371

Sample: 376353-005 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/10 18:32

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.2	99.6	71	70-135	
o-Terphenyl	34.8	49.8	70	70-135	

Lab Batch #: 810371

Sample: 376353-005 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/10 19:05

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.6	99.9	91	70-135	
o-Terphenyl	44.5	50.0	89	70-135	

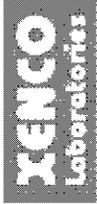
* Surrogate outside of Laboratory QC limits

** 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: Lea Station Landfarm

Work Order #: 375952

Analyst: LATCOR

Lab Batch ID: 809945

Sample: 809945-1-BKS

Batch #: 1

Date Prepared: 06/08/2010

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.18	92	10	9.81	98	7	75-125	20	

Analyst: LATCOR

Date Prepared: 06/09/2010

Date Analyzed: 06/09/2010

Lab Batch ID: 809949

Sample: 809949-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	9.00	8.80	98	9	8.03	89	9	75-125	20	

Analyst: BEV

Date Prepared: 06/10/2010

Date Analyzed: 06/10/2010

Lab Batch ID: 810371

Sample: 565564-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	1010	987	98	995	983	99	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1010	807	80	995	824	83	2	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 375952

Lab Batch #: 809945

Date Analyzed: 06/08/2010

QC- Sample ID: 375947-001 S

Reporting Units: mg/kg

Date Prepared: 06/08/2010

Batch #: 1

Project ID: 2004-00061

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	32.3	103	145	109	75-125	

Lab Batch #: 809949

Date Analyzed: 06/09/2010

QC- Sample ID: 375952-003 S

Reporting Units: mg/kg

Date Prepared: 06/09/2010

Batch #: 1

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	54.7	51.2	116	120	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Lea Station Landfarm



Work Order #: 375952

Project ID: 2004-00061

Lab Batch ID: 810371

QC-Sample ID: 376353-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/11/2010

Date Prepared: 06/10/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY 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	ND	1420	1070	75	1420	1080	76	1	70-135	35
C12-C28 Diesel Range Hydrocarbons	ND	1420	1020	72	1420	1030	73	1	70-135	35	

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



Sample Duplicate Recovery



Project Name: Lea Station Landfarm

Work Order #: 375952

Lab Batch #: 809945

Project ID: 2004-00061

Date Analyzed: 06/08/2010

Date Prepared: 06/08/2010

Analyst: LATCOR

QC- Sample ID: 375947-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	32.3	31.2	3	20	

Lab Batch #: 809949

Date Analyzed: 06/09/2010

Date Prepared: 06/09/2010

Analyst: LATCOR

QC- Sample ID: 375952-003 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	54.7	52.9	3	20	

Lab Batch #: 809824

Date Analyzed: 06/09/2010

Date Prepared: 06/09/2010

Analyst: JLG

QC- Sample ID: 375950-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.95	3.02	2	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



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: Basin Env. / Plains
 Date/Time: 6.7.10 16:15
 Lab ID #: 375952
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>4.1</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply: Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 Initial and Backup Temperature confirm out of temperature conditions
 Client understands and would like to proceed with analysis

Analytical Report 375953

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

14-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)



14-JUN-10

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

Reference: XENCO Report No: **375953**
Lea Station Landfarm
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 375953. 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. 375953 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 375953



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell G G-1	S	Jun-07-10 11:30		375953-001
TZ Cell G G-2	S	Jun-07-10 11:35		375953-002
TZ Cell G G-3	S	Jun-07-10 11:40		375953-003
TZ Cell G G-4	S	Jun-07-10 11:45		375953-004
TZ Cell G G-5	S	Jun-07-10 11:50		375953-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S
Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 375953

Report Date: 14-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-809824 Percent Moisture

None

Batch: LBA-809949 Inorganic Anions by EPA 300

None

Batch: LBA-810047 TPH by SW8015 Mod

None

Batch: LBA-810371 TPH by SW8015 Mod

None



Certificate of Analysis Summary 375953

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Project Name: Lea Station Landfarm

Date Received in Lab: Mon Jun-07-10 04:15 pm

Report Date: 14-JUN-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		<i>Lab Id:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	<i>Extracted:</i>	<i>Analyzed:</i>	<i>Units/RL:</i>	<i>375953-001</i>	<i>375953-002</i>	<i>375953-003</i>	<i>375953-004</i>	<i>375953-005</i>
Inorganic Anions In Soil by E300					SOIL	Jun-07-10 11:30	Jun-09-10 03:32		mg/kg	8.84	12.0	8.95	14.1	5.17
					SOIL	Jun-07-10 11:35	Jun-09-10 03:32		mg/kg	5.11	5.12	5.10	5.13	5.10
Percent Moisture									%	2.24	2.27	1.87	2.51	2.00
									RL	1.00	1.00	1.00	1.00	1.00
TPH by SW8015 Mod														
									mg/kg	25.8	43.2	23.5	23.5	30.8
									RL	15.3	15.3	15.3	15.4	15.2
C6-C12 Gasoline Range Hydrocarbons										923	2070	1620	1700	715
C12-C28 Diesel Range Hydrocarbons										82.0	94.8	112	102	58.7
C28-C35 Oil Range Hydrocarbons										1031	2208	1756	1826	805
Total TPH										15.3	15.3	15.3	15.4	15.2

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.

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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



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375953,

Project ID: 2004-00061

Lab Batch #: 810047

Sample: 565346-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/09/10 11:51	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		130	100	130	70-135	
o-Terphenyl		59.4	50.2	118	70-135	

Lab Batch #: 810047

Sample: 565346-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/09/10 12:24	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		90.5	99.5	91	70-135	
o-Terphenyl		42.5	49.8	85	70-135	

Lab Batch #: 810047

Sample: 565346-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/09/10 12:56	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		84.9	100	85	70-135	
o-Terphenyl		48.0	50.2	96	70-135	

Lab Batch #: 810047

Sample: 375953-005 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/09/10 21:14	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		70.7	99.5	71	70-135	
o-Terphenyl		35.1	49.8	70	70-135	

Lab Batch #: 810371

Sample: 565564-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/10/10 18:17	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		118	101	117	70-135	
o-Terphenyl		56.7	50.3	113	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375953,

Project ID: 2004-00061

Lab Batch #: 810371

Sample: 565564-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/10/10 18:50

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.5	119	70-135	
o-Terphenyl	57.0	49.8	114	70-135	

Lab Batch #: 810371

Sample: 565564-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/10/10 19:23

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.9	101	70-135	
o-Terphenyl	58.6	50.0	117	70-135	

Lab Batch #: 810371

Sample: 375953-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/10 09:10

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.1	99.7	96	70-135	
o-Terphenyl	54.1	49.9	108	70-135	

Lab Batch #: 810371

Sample: 375953-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/10 09:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.9	99.5	83	70-135	
o-Terphenyl	48.3	49.8	97	70-135	

Lab Batch #: 810371

Sample: 375953-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/11/10 10:12

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.9	100	71	70-135	
o-Terphenyl	39.9	50.1	80	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375953,

Project ID: 2004-00061

Lab Batch #: 810371

Sample: 375953-004 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.3	99.9	70	70-135	
o-Terphenyl	35.9	50.0	72	70-135	

Lab Batch #: 810371

Sample: 376353-005 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.2	99.6	71	70-135	
o-Terphenyl	34.8	49.8	70	70-135	

Lab Batch #: 810371

Sample: 376353-005 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.6	99.9	91	70-135	
o-Terphenyl	44.5	50.0	89	70-135	

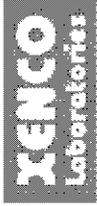
* Surrogate outside of Laboratory QC limits

** 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: Lea Station Landfarm

Work Order #: 375953

Analyst: LATCOR

Lab Batch ID: 809949

Sample: 809949-1-BKS

Units: mg/kg

Project ID: 2004-00061

Date Analyzed: 06/09/2010

Matrix: Solid

Date Prepared: 06/09/2010

Batch #: 1

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	9.00	8.80	98	9	8.03	89	9	75-125	20	

Date Prepared: 06/08/2010

Batch #: 1

Date Analyzed: 06/09/2010

Matrix: Solid

Sample: 565346-1-BKS

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	1210	121	995	881	89	31	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	873	87	995	784	79	11	70-135	35	

Date Prepared: 06/10/2010

Batch #: 1

Date Analyzed: 06/10/2010

Matrix: Solid

Sample: 565564-1-BKS

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	1010	987	98	995	983	99	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1010	807	80	995	824	83	2	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 375953

Lab Batch #: 809949

Project ID: 2004-00061

Date Analyzed: 06/09/2010

Date Prepared: 06/09/2010

Analyst: LATCOR

QC- Sample ID: 375952-003 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	54.7	51.2	116	120	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Lea Station Landfarm



Work Order #: 375953

Project ID: 2004-00061

Lab Batch ID: 810371

QC-Sample ID: 376353-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/11/2010

Date Prepared: 06/10/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY 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	ND	1420	1070	75	1420	1080	76	1	70-135	35
C12-C28 Diesel Range Hydrocarbons	ND	1420	1020	72	1420	1030	73	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

Applicable N See Narrative, EQ Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Lea Station Landfarm

Work Order #: 375953

Lab Batch #: 809949

Project ID: 2004-00061

Date Analyzed: 06/09/2010

Date Prepared: 06/09/2010

Analyst: LATCOR

QC- Sample ID: 375952-003 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	54.7	52.9	3	20	

Lab Batch #: 809824

Date Analyzed: 06/09/2010

Date Prepared: 06/09/2010

Analyst: JLG

QC- Sample ID: 375950-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.95	3.02	2	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 of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant
Company Name: Basin Environmental Consulting, LLC
Company Address: P.O. Box 381
City/State/Zip: Lovington, NM 88260
Telephone No: (575)605-7210
Project Name: Lea Station Landfarm
Project #: 2004-00061
Project Loc: Lea County, NM

PO #: PAA - J. Henry
Report Format: Standard TRRP NPDES
Fax No: (505) 396-1429
e-mail: cibryant@basin-consulting.com

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers							Matrix	Analyze For:
								HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ O ₂	None	Other (Specify)		
1	TZ Cell G G-1			6/7/10	1130		1	X							SOIL	TPH: 418.1 8015M 8015B TPH: TX 1005 TX 1006 Cations (Ca, Mg, Na, K) Anions (Cl, SO ₄ , Alkalinity) SAR / ESP / CEC Metals: As Ag Ba Cd Cr Pb Hg Se Volatiles Semivolatiles BTEX 8021B/5030 or BTEX 8280 N.O.R.M. Chlorides 300.1 RUSH TAT (Pre-Schedule) 24, 48, 72 hrs
2	TZ Cell G G-2			6/7/10	1135		1	X							SOIL	
3	TZ Cell G G-3			6/7/10	1140		1	X							SOIL	
4	TZ Cell G G-4			6/7/201	1145		1	X							SOIL	
5	TZ Cell G G-5			6/7/10	1150		1	X							SOIL	

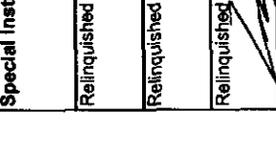
ORDER #: 375A53

Sampler Signature: 

Special Instructions:

Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____

Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____

Relinquished by:  Date: 6-7-10 Time: 4:15 Received by ELOT: Andrea Sam Date: 6-7-10 Time: 16:15

Laboratory Comments:
 Sample Containers Intact
 VOCs Free of Headspace?
 Labels on containers?
 Custody seals on containers(s)
 Custody seals on cooler(s)
 Sample Hand Delivered
 by Sampler/Client Rep.?
 by Counter? UPS DHL FedEx Lone Star
 Temperature Upon Receipt: 4.1 °C



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: Basin Env. / Plains
 Date/Time: 6-7-10 16:15
 Lab ID #: 375953
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>4.1</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 375956

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

10-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)



10-JUN-10

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

Reference: XENCO Report No: **375956**
Lea Station Landfarm
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 375956. 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. 375956 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Certified and approved by numerous States and Agencies.

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



Sample Cross Reference 375956



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell H G-1	S	Jun-07-10 12:10		375956-001
TZ Cell H G-2	S	Jun-07-10 12:15		375956-002
TZ Cell H G-3	S	Jun-07-10 12:20		375956-003



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 375956

Report Date: 10-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-809824 Percent Moisture

None

Batch: LBA-809949 Inorganic Anions by EPA 300

None

Batch: LBA-810047 TPH by SW8015 Mod

None



Certificate of Analysis Summary 375956

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2004-00061
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Mon Jun-07-10 04:15 pm
Report Date: 10-JUN-10
Project Manager: Brent Barron, II

Project Name: Lea Station Landfarm

Analysis Requested	Lab Id:	375956-001	375956-002	375956-003
	Field Id:	TZ Cell H G-1	TZ Cell H G-2	TZ Cell H G-3
Depth:				
Matrix:	SOIL	SOIL	SOIL	
Sampled:	Jun-07-10 12:10	Jun-07-10 12:15	Jun-07-10 12:20	
Extracted:				
Analyzed:	Jun-09-10 03:32	Jun-09-10 03:32	Jun-09-10 03:32	
Units/RL:	mg/kg RL 42.5 5.27	mg/kg RL 14.2 5.44	mg/kg RL 8.07 5.25	
Percent Moisture				
Extracted:				
Analyzed:	Jun-09-10 08:30	Jun-09-10 08:30	Jun-09-10 08:30	
Units/RL:	% RL 5.15 1.00	% RL 8.02 1.00	% RL 4.70 1.00	
TPH by SW8015 Mod				
Extracted:	Jun-08-10 12:45	Jun-08-10 12:45	Jun-08-10 12:45	
Analyzed:	Jun-09-10 22:16	Jun-09-10 22:46	Jun-09-10 23:16	
Units/RL:	mg/kg RL 112 78.8	mg/kg RL 175 16.2	mg/kg RL ND 15.7	
C6-C12 Gasoline Range Hydrocarbons	2380 78.8	2870 16.2	299 15.7	
C12-C28 Diesel Range Hydrocarbons	282 78.8	180 16.2	53.5 15.7	
C28-C35 Oil Range Hydrocarbons	2774 78.8	3225 16.2	353 15.7	
Total TPH				

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

* Outside XENCO's scope of NELAC Accreditation.

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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375956,

Project ID: 2004-00061

Lab Batch #: 810047

Sample: 565346-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 11:51				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	100	130	70-135	
o-Terphenyl	59.4	50.2	118	70-135	

Lab Batch #: 810047

Sample: 565346-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 12:24				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.5	99.5	91	70-135	
o-Terphenyl	42.5	49.8	85	70-135	

Lab Batch #: 810047

Sample: 565346-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 12:56				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.9	100	85	70-135	
o-Terphenyl	48.0	50.2	96	70-135	

Lab Batch #: 810047

Sample: 375956-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 22:16				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.2	99.7	85	70-135	
o-Terphenyl	50.0	49.9	100	70-135	

Lab Batch #: 810047

Sample: 375956-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/09/10 22:46				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.6	99.5	94	70-135	
o-Terphenyl	52.8	49.8	106	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 375956,

Project ID: 2004-00061

Lab Batch #: 810047

Sample: 375956-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/09/10 23:16

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.2	99.7	83	70-135	
o-Terphenyl	47.0	49.9	94	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: Lea Station Landfarm

Work Order #: 375956

Analyst: LATCOR

Lab Batch ID: 809949

Sample: 809949-1-BKS

Date Prepared: 06/09/2010

Batch #: 1

Project ID: 2004-00061

Date Analyzed: 06/09/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	9.00	8.80	98	9	8.03	89	9	75-125	20	

Analyst: BEV

Date Prepared: 06/08/2010

Date Analyzed: 06/09/2010

Lab Batch ID: 810047

Sample: 565346-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
TPH by SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1210	121	995	881	89	31	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	873	87	995	784	79	11	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 375956

Lab Batch #: 809949

Project ID: 2004-00061

Date Analyzed: 06/09/2010

Date Prepared: 06/09/2010

Analyst: LATCOR

QC- Sample ID: 375952-003 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	54.7	51.2	116	120	75-125	

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

BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 375956

Lab Batch #: 809949

Project ID: 2004-00061

Date Analyzed: 06/09/2010

Date Prepared: 06/09/2010

Analyst: LATCOR

QC- Sample ID: 375952-003 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	54.7	52.9	3	20	

Lab Batch #: 809824

Date Analyzed: 06/09/2010

Date Prepared: 06/09/2010

Analyst: JLG

QC- Sample ID: 375950-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.95	3.02	2	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



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: Basin Env. / Plains
 Date/Time: 6-7-10 16:15
 Lab ID #: 375956
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>4.1</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply: Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 Initial and Backup Temperature confirm out of temperature conditions
 Client understands and would like to proceed with analysis

Analytical Report 396364
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

11-NOV-10



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Texas (T104704215-10-6-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)
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Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
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Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



11-NOV-10

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

Reference: XENCO Report No: **396364**
Lea Station Landfarm
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 396364. 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. 396364 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 396364



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell A G-1	S	Nov-01-10 08:15		396364-001
TZ Cell A G-2	S	Nov-01-10 08:20		396364-002
TZ Cell A G-3	S	Nov-01-10 08:25		396364-003
TZ Cell A G-4	S	Nov-01-10 08:30		396364-004
TZ Cell A G-5	S	Nov-01-10 08:35		396364-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 396364

Report Date: 11-NOV-10
Date Received: 11/05/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None



Certificate of Analysis Summary 396364

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Fri Nov-05-10 03:15 pm

Report Date: 11-NOV-10

Project Manager: Brent Barron, II

Project Name: Lea Station Landfarm

Analysis Requested	Lab Id:	396364-001	396364-002	396364-003	396364-004	396364-005
	Field Id:	TZ Cell A G-1	TZ Cell A G-2	TZ Cell A G-3	TZ Cell A G-4	TZ Cell A G-5
Depth:						
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:	Nov-01-10 08:15	Nov-01-10 08:20	Nov-01-10 08:25	Nov-01-10 08:30	Nov-01-10 08:35	
Extracted:						
Analyzed:	Nov-09-10 07:52	Nov-09-10 07:52	Nov-09-10 07:52	Nov-09-10 07:52	Nov-09-10 07:52	
Units/RL:	mg/kg RL 27.4 4.33	mg/kg RL 16.6 4.31	mg/kg RL 14.4 4.35	mg/kg RL 9.06 4.30	mg/kg RL ND 4.28	
Extracted:						
Analyzed:	Nov-08-10 14:45	Nov-08-10 14:45	Nov-08-10 14:45	Nov-08-10 14:45	Nov-08-10 14:45	
Units/RL:	% RL 2.93 1.00	% RL 2.66 1.00	% RL 3.47 1.00	% RL 2.31 1.00	% RL 1.81 1.00	
Percent Moisture						
Extracted:						
Analyzed:	Nov-08-10 10:45	Nov-08-10 10:45	Nov-08-10 10:45	Nov-08-10 10:45	Nov-08-10 10:45	
Units/RL:	mg/kg RL ND 15.4	mg/kg RL ND 15.5	mg/kg RL ND 15.6	mg/kg RL ND 15.3	mg/kg RL ND 15.3	
C6-C12 Gasoline Range Hydrocarbons	615 15.4	701 15.5	452 15.6	124 15.3	189 15.3	
C12-C28 Diesel Range Hydrocarbons	87.3 15.4	98.6 15.5	70.2 15.6	27.4 15.3	36.6 15.3	
C28-C35 Oil Range Hydrocarbons	702 15.4	800 15.5	522 15.6	151 15.3	226 15.3	
Total TPH						

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

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842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396364,

Project ID: 2004-00061

Lab Batch #: 831285

Sample: 396364-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	105	99.9	105	70-135	
o-Terphenyl	50.5	50.0	101	70-135	

Lab Batch #: 831285

Sample: 396364-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	102	101	101	70-135	
o-Terphenyl	49.4	50.3	98	70-135	

Lab Batch #: 831285

Sample: 396364-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	95.0	100	95	70-135	
o-Terphenyl	45.2	50.1	90	70-135	

Lab Batch #: 831285

Sample: 396364-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	71.5	99.5	72	70-135	
o-Terphenyl	35.8	49.8	72	70-135	

Lab Batch #: 831285

Sample: 396364-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	129	100	129	70-135	
o-Terphenyl	61.1	50.1	122	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396364,

Project ID: 2004-00061

Lab Batch #: 831285

Sample: 578294-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 11/10/10 08:53		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		130	100	130	70-135	
o-Terphenyl		64.8	50.1	129	70-135	

Lab Batch #: 831285

Sample: 578294-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 11/10/10 08:53		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		129	99.7	129	70-135	
o-Terphenyl		63.7	49.9	128	70-135	

Lab Batch #: 831285

Sample: 578294-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 11/10/10 08:53		SURROGATE RECOVERY STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		127	100	127	70-135	
o-Terphenyl		60.5	50.1	121	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: Lea Station Landfarm

Work Order #: 396364

Analyst: LATCOR

Lab Batch ID: 831275

Sample: 831275-1-BKS

Batch #: 1

Date Prepared: 11/09/2010

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.34	93	10	9.27	93	1	75-125	20	

Analyst: BEV

Date Prepared: 11/08/2010

Date Analyzed: 11/10/2010

Lab Batch ID: 831285

Sample: 578294-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
TPH By SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	841	84	1000	796	80	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	874	87	1000	814	81	7	70-135	35	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 396364

Lab Batch #: 831275

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: LATCOR

QC- Sample ID: 396364-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	27.4	103	129	99	75-125	

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

BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 396364

Lab Batch #: 831275

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: LATCOR

QC- Sample ID: 396364-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	27.4	25.5	7	20	

Lab Batch #: 830971

Date Analyzed: 11/08/2010

Date Prepared: 11/08/2010

Analyst: JLG

QC- Sample ID: 396364-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.93	2.73	7	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



XENCO Laboratories
 Atlanta, Boca Raton, CA, Dallas, Denver, Houston, Miami, Naples, Phoenix, San Antonio, TX

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: Basin Environmental
 Date/Time: 11-5-10 15:15
 Job ID: 396364
 Initials: JM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No
2. Shipping container in good condition?	<u>Yes</u>	No	None
3. Custody seals intact on shipping container (coolers) and...?	<u>Yes</u>	No	N/A
4. Chain of Custody present?	<u>Yes</u>	No	
5. Sample instructions / manifest on chain of custody?	<u>Yes</u>	No	
6. Any missing / missing...	Yes	<u>No</u>	
7. Chain of custody signed and relinquished?	<u>Yes</u>	No	
8. Chain of custody agrees with sample labels?	<u>Yes</u>	No	
9. Container labels legible and intact?	<u>Yes</u>	No	
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No	
11. Samples in proper containers / bottles?	<u>Yes</u>	No	
12. Samples properly preserved?	<u>Yes</u>	No	N/A
13. Sample container intact?	<u>Yes</u>	No	
14. Sufficient samples are available for indicated tests?	<u>Yes</u>	No	
15. All samples received within specified hold times?	<u>Yes</u>	No	
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A
17. VOC sample have zero headspace?	Yes	No	<u>N/A</u>
18. Cooler 1 No. <u>1</u> No. <u>2</u> Cooler 4 No. <u>3</u> Cooler 5 No. <u>4</u>			
<u>lbs</u> <u>26</u> °C			

Nonconformance Documentation

Contract: _____ Contractor: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Nonconformance process has begun, including event and out of temperature
 - Nonconformance process has begun, including event and out of temperature
 - Backup Temperature and Humidity conditions
 - Samples are sealed and wrapped for analysis

Analytical Report 396366
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

11-NOV-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 (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
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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: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

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Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



11-NOV-10

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

Reference: XENCO Report No: **396366**
Lea Station Landfarm
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 396366. 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. 396366 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 396366



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell B G-1	S	Nov-01-10 08:40		396366-001
TZ Cell B G-2	S	Nov-01-10 08:45		396366-002
TZ Cell B G-3	S	Nov-01-10 08:50		396366-003
TZ Cell B G-4	S	Nov-01-10 08:55		396366-004



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 396366

Report Date: 11-NOV-10
Date Received: 11/05/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None



Certificate of Analysis Summary 396366

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2004-00061
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Fri Nov-05-10 03:15 pm
Report Date: 11-NOV-10
Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	Extracted:	Analyzed:	Units/RL:	396366-001	396366-002	396366-003	396366-004
Anions by E300	Chloride	TZ Cell B G-1		SOIL	Nov-01-10 08:40	Nov-09-10 07:52	Nov-09-10 07:52	RL	ND	ND	5.27	ND
								RL	4.41	4.38	4.36	4.52
Percent Moisture		TZ Cell B G-1		SOIL	Nov-01-10 08:40	Nov-09-10 07:52	Nov-08-10 14:45	%	4.80	4.06	3.71	7.02
								RL	1.00	1.00	1.00	1.00
TPH By SW8015 Mod		TZ Cell B G-1		SOIL	Nov-01-10 08:40	Nov-09-10 07:52	Nov-08-10 10:45	mg/kg	ND	ND	ND	ND
								RL	15.8	15.7	15.6	16.1
								RL	550	485	146	150
C6-C12 Gasoline Range Hydrocarbons		TZ Cell B G-1		SOIL	Nov-01-10 08:40	Nov-09-10 07:52	Nov-10-10 08:53	mg/kg	104	81.6	25.4	35.5
								RL	15.8	15.7	15.6	16.1
C12-C28 Diesel Range Hydrocarbons		TZ Cell B G-1		SOIL	Nov-01-10 08:40	Nov-09-10 07:52	Nov-08-10 14:45	%	654	567	171	186
								RL	1.00	1.00	1.00	1.00
C28-C35 Oil Range Hydrocarbons		TZ Cell B G-1		SOIL	Nov-01-10 08:40	Nov-09-10 07:52	Nov-08-10 14:45	mg/kg	567	567	171	186
								RL	15.7	15.7	15.6	16.1
Total TPH		TZ Cell B G-1		SOIL	Nov-01-10 08:40	Nov-09-10 07:52	Nov-08-10 14:45	%	567	567	171	186
								RL	1.00	1.00	1.00	1.00

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

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

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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
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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396366,

Project ID: 2004-00061

Lab Batch #: 831285

Sample: 396366-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	87.8	100	88	70-135	
o-Terphenyl	40.9	50.0	82	70-135	

Lab Batch #: 831285

Sample: 396366-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	99.6	100	100	70-135	
o-Terphenyl	47.2	50.2	94	70-135	

Lab Batch #: 831285

Sample: 396366-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	50.3	50.2	100	70-135	

Lab Batch #: 831285

Sample: 396366-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	116	99.6	116	70-135	
o-Terphenyl	55.0	49.8	110	70-135	

Lab Batch #: 831285

Sample: 578294-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	130	100	130	70-135	
o-Terphenyl	64.8	50.1	129	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396366,

Project ID: 2004-00061

Lab Batch #: 831285

Sample: 578294-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/10/10 08:53

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	99.7	129	70-135	
o-Terphenyl	63.7	49.9	128	70-135	

Lab Batch #: 831285

Sample: 578294-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/10/10 08:53

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	60.5	50.1	121	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: Lea Station Landfarm

Work Order #: 396366

Analyst: LATCOR

Lab Batch ID: 831275

Sample: 831275-1-BKS

Batch #: 1

Date Prepared: 11/09/2010

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.34	93	10	9.27	93	1	75-125	20	

Analyst: BEV

Date Prepared: 11/08/2010

Date Analyzed: 11/10/2010

Lab Batch ID: 831285

Sample: 578294-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
TPH By SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	841	84	1000	796	80	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	874	87	1000	814	81	7	70-135	35	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 396366

Lab Batch #: 831275

Date Analyzed: 11/09/2010

QC- Sample ID: 396364-001 S

Reporting Units: mg/kg

Date Prepared: 11/09/2010

Batch #: 1

Project ID: 2004-00061

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	27.4	103	129	99	75-125	

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

BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 396366

Lab Batch #: 831275

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: LATCOR

QC- Sample ID: 396364-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	27.4	25.5	7	20	

Lab Batch #: 830971

Date Analyzed: 11/08/2010

Date Prepared: 11/08/2010

Analyst: JLG

QC- Sample ID: 396364-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.93	2.73	7	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



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: Basin Environmental
 Date/Time: 11-5-10 15:15
 Lab ID #: 396366
 Initials: AM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete, on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.6</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply.
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAP 5.6.8.3.1.a.1.
 - Initial and Backup Temperature confirms out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 396367
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

11-NOV-10



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



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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: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



11-NOV-10

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

Reference: XENCO Report No: **396367**
Lea Station Landfarm
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 396367. 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. 396367 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 396367



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell D G-1	S	Nov-01-10 09:00		396367-001
TZ Cell D G-2	S	Nov-01-10 09:05		396367-002
TZ Cell D G-3	S	Nov-01-10 09:10		396367-003
TZ Cell D G-4	S	Nov-01-10 09:15		396367-004
TZ Cell D G-5	S	Nov-01-10 09:20		396367-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 396367

Report Date: 11-NOV-10
Date Received: 11/05/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Certificate of Analysis Summary 396367

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Project Name: Lea Station Landfarm

Date Received in Lab: Fri Nov-05-10 03:15 pm

Report Date: 11-NOV-10

Project Manager: Brent Barron, II

Lab Id:	396367-001	396367-002	396367-003	396367-004	396367-005
Field Id:	TZ Cell D G-1	TZ Cell D G-2	TZ Cell D G-3	TZ Cell D G-4	TZ Cell D G-5
Depth:					
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:	Nov-01-10 09:00	Nov-01-10 09:05	Nov-01-10 09:10	Nov-01-10 09:15	Nov-01-10 09:20
Anions by E300					
Extracted:					
Analyzed:	Nov-09-10 07:52	Nov-09-10 07:52	Nov-09-10 07:52	Nov-09-10 07:52	Nov-09-10 07:52
Units/RL:	mg/kg RL 20.4 4.28	mg/kg RL 51.3 4.28	mg/kg RL 14.7 4.41	mg/kg RL ND 4.26	mg/kg RL ND 4.26
Chloride					
Percent Moisture					
Extracted:					
Analyzed:	Nov-08-10 14:45	Nov-08-10 14:45	Nov-08-10 14:45	Nov-08-10 14:45	Nov-08-10 14:45
Units/RL:	% RL 1.78 1.00	% RL 1.87 1.00	% RL 4.71 1.00	% RL 1.49 1.00	% RL 1.40 1.00
Percent Moisture					
TPH By SW8015 Mod					
Extracted:	Nov-08-10 10:45	Nov-08-10 10:45	Nov-08-10 10:45	Nov-08-10 10:45	Nov-08-10 10:45
Analyzed:	Nov-10-10 08:53	Nov-10-10 08:53	Nov-10-10 08:53	Nov-10-10 08:53	Nov-10-10 08:53
Units/RL:	mg/kg RL ND 15.3	mg/kg RL ND 15.4	mg/kg RL ND 15.7	mg/kg RL 18.1 15.2	mg/kg RL ND 15.2
C6-C12 Gasoline Range Hydrocarbons	411	459	601	812	418
C12-C28 Diesel Range Hydrocarbons	63.2	72.9	86.5	124	63.6
C28-C35 Oil Range Hydrocarbons	474	532	688	954	482
Total TPH					

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.

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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.
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- 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.

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RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396367,

Project ID: 2004-00061

Lab Batch #: 831285

Sample: 396367-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	51.1	50.0	102	70-135	

Lab Batch #: 831285

Sample: 396367-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	101	105	70-135	
o-Terphenyl	49.5	50.3	98	70-135	

Lab Batch #: 831285

Sample: 396367-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	99.7	119	70-135	
o-Terphenyl	58.5	49.9	117	70-135	

Lab Batch #: 831285

Sample: 396367-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	132	100	132	70-135	
o-Terphenyl	63.2	50.0	126	70-135	

Lab Batch #: 831285

Sample: 396367-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.5	99.7	86	70-135	
o-Terphenyl	39.5	49.9	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396367,

Project ID: 2004-00061

Lab Batch #: 831285

Sample: 578294-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/10/10 08:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	100	130	70-135	
o-Terphenyl	64.8	50.1	129	70-135	

Lab Batch #: 831285

Sample: 578294-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/10/10 08:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	99.7	129	70-135	
o-Terphenyl	63.7	49.9	128	70-135	

Lab Batch #: 831285

Sample: 578294-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/10/10 08:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	60.5	50.1	121	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: Lea Station Landfarm

Work Order #: 396367

Analyst: LATCOR

Lab Batch ID: 831275

Sample: 831275-1-BKS

Batch #: 1

Date Prepared: 11/09/2010

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.34	93	10	9.27	93	1	75-125	20	

Analyst: BEV

Date Prepared: 11/08/2010

Date Analyzed: 11/10/2010

Lab Batch ID: 831285

Sample: 578294-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
TPH By SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	841	84	1000	796	80	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	874	87	1000	814	81	7	70-135	35	

Relative Percent Difference $RPD = 200 * [(C-F)/(C+F)]$

Blank Spike Recovery $[D] = 100 * (C)/[B]$

Blank Spike Duplicate Recovery $[G] = 100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 396367

Lab Batch #: 831275

Date Analyzed: 11/09/2010

QC- Sample ID: 396364-001 S

Reporting Units: mg/kg

Date Prepared: 11/09/2010

Batch #: 1

Project ID: 2004-00061

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	27.4	103	129	99	75-125	

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

BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 396367

Lab Batch #: 831275

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: LATCOR

QC- Sample ID: 396364-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	27.4	25.5	7	20	

Lab Batch #: 830971

Date Analyzed: 11/08/2010

Date Prepared: 11/08/2010

Analyst: JLG

QC- Sample ID: 396364-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.93	2.73	7	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



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: Basin Environmental
 Date/Time: 11-5-10 15:15
 Lab ID #: 3916367
 Initials: AM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No. _____ Cooler 2 No. _____ Cooler 3 No. _____ Cooler 4 No. _____ Cooler 5 No. _____	lbs <u>2.6</u> °C _____ lbs _____ °C _____ lbs _____ °C _____ lbs _____ °C _____ lbs _____ °C _____			

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply. Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAP 4.8.3.1.a.1.
 Initial and Backup Temperature confirm out of temperature conditions
 Client understands and would like to proceed with analysis

Analytical Report 396369
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

11-NOV-10



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



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Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-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: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



11-NOV-10

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

Reference: XENCO Report No: **396369**
Lea Station Landfarm
Project Address: Lea County, NM

Jason Henry:

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Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 396369



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
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TZ Cell E G-2	S	Nov-01-10 09:30		396369-002
TZ Cell E G-3	S	Nov-01-10 09:35		396369-003



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 396369

Report Date: 11-NOV-10
Date Received: 11/05/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

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2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396369,

Project ID: 2004-00061

Lab Batch #: 831285

Sample: 396369-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.2	100	97	70-135	
o-Terphenyl	46.4	50.2	92	70-135	

Lab Batch #: 831285

Sample: 396369-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	99.5	121	70-135	
o-Terphenyl	56.9	49.8	114	70-135	

Lab Batch #: 831285

Sample: 396369-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	48.8	50.2	97	70-135	

Lab Batch #: 831285

Sample: 578294-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	100	130	70-135	
o-Terphenyl	64.8	50.1	129	70-135	

Lab Batch #: 831285

Sample: 578294-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	99.7	129	70-135	
o-Terphenyl	63.7	49.9	128	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396369,

Project ID: 2004-00061

Lab Batch #: 831285

Sample: 578294-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/10/10 08:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	60.5	50.1	121	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: Lea Station Landfarm

Work Order #: 396369

Analyst: LATCOR

Lab Batch ID: 831275

Sample: 831275-1-BKS

Batch #: 1

Date Prepared: 11/09/2010

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.34	93	10	9.27	93	1	75-125	20	

Analyst: BEV

Date Prepared: 11/08/2010

Date Analyzed: 11/10/2010

Lab Batch ID: 831285

Sample: 578294-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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	841	84	1000	796	80	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	874	87	1000	814	81	7	70-135	35	

Relative Percent Difference RPD = $200 * [(C-F)/(C+F)]$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 396369

Lab Batch #: 831275

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: LATCOR

QC- Sample ID: 396364-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	27.4	103	129	99	75-125	

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

BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 396369

Lab Batch #: 831275

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: LATCOR

QC- Sample ID: 396364-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	27.4	25.5	7	20	

Lab Batch #: 830971

Date Analyzed: 11/08/2010

Date Prepared: 11/08/2010

Analyst: JLG

QC- Sample ID: 396364-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.93	2.73	7	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



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Phoenix, 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: Basin Environmental
 Date/Time: 11-5-10 15:15
 Lab ID #: 396369
 Initials: AM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.6</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAP 5.6.8.3.1 a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 396371
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

11-NOV-10



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



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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)
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Xenco-Atlanta (EPA Lab Code: GA00046):

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Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



11-NOV-10

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

Reference: XENCO Report No: **396371**
Lea Station Landfarm
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 396371. 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. 396371 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 396371



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell F G-1	S	Nov-01-10 09:40		396371-001
TZ Cell F G-2	S	Nov-01-10 09:45		396371-002
TZ Cell F G-3	S	Nov-01-10 09:50		396371-003
TZ Cell F G-4	S	Nov-01-10 09:55		396371-004
TZ Cell F G-5	S	Nov-01-10 10:00		396371-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 396371

Report Date: 11-NOV-10
Date Received: 11/05/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Certificate of Analysis Summary 396371

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lea Station Landfarm

Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Fri Nov-05-10 03:15 pm

Report Date: 11-NOV-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	Extracted:	Analyzed:	Units/RL:	396371-001	396371-002	396371-003	396371-004	396371-005
Anions by E300		TZ Cell F G-1		SOIL	Nov-01-10 09:40	Nov-09-10 07:52	Nov-09-10 07:52	RL	48.7	132	30.4	43.1	ND
								mg/kg	4.28	4.31	4.33	4.41	4.37
Percent Moisture		TZ Cell F G-2		SOIL	Nov-01-10 09:45	Nov-09-10 07:52	Nov-08-10 14:45	RL					
								%					
TPH By SW8015 Mod		TZ Cell F G-3		SOIL	Nov-01-10 09:55	Nov-09-10 07:52	Nov-08-10 14:45	RL					
								%					
C6-C12 Gasoline Range Hydrocarbons		TZ Cell F G-4		SOIL	Nov-01-10 09:55	Nov-09-10 07:52	Nov-08-10 14:45	RL					
								mg/kg					
C12-C28 Diesel Range Hydrocarbons		TZ Cell F G-5		SOIL	Nov-01-10 10:00	Nov-09-10 07:52	Nov-08-10 14:45	RL					
								%					
C28-C35 Oil Range Hydrocarbons								RL					
								mg/kg					
Total TPH									401	629	548	396	218

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.

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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.

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842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396371,

Project ID: 2004-00061

Lab Batch #: 831198

Sample: 578252-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/09/10 12:07				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.1	100	96	70-135	
o-Terphenyl	56.9	50.1	114	70-135	

Lab Batch #: 831198

Sample: 578252-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/09/10 12:26				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.4	100	98	70-135	
o-Terphenyl	63.5	50.1	127	70-135	

Lab Batch #: 831198

Sample: 578252-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/09/10 12:46				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.1	99.7	99	70-135	
o-Terphenyl	53.4	49.9	107	70-135	

Lab Batch #: 831198

Sample: 396371-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/09/10 14:24				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.3	99.5	98	70-135	
o-Terphenyl	58.9	49.8	118	70-135	

Lab Batch #: 831198

Sample: 396371-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/09/10 14:45				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	100	96	70-135	
o-Terphenyl	58.3	50.2	116	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396371,

Project ID: 2004-00061

Lab Batch #: 831198

Sample: 396371-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/09/10 15:05				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	57.4	50.2	114	70-135	

Lab Batch #: 831285

Sample: 396371-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.7	100	87	70-135	
o-Terphenyl	40.6	50.0	81	70-135	

Lab Batch #: 831285

Sample: 396371-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	54.3	50.0	109	70-135	

Lab Batch #: 831285

Sample: 578294-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	100	130	70-135	
o-Terphenyl	64.8	50.1	129	70-135	

Lab Batch #: 831285

Sample: 578294-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 08:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	129	99.7	129	70-135	
o-Terphenyl	63.7	49.9	128	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396371,

Project ID: 2004-00061

Lab Batch #: 831285

Sample: 578294-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 11/10/10 08:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	60.5	50.1	121	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: Lea Station Landfarm

Work Order #: 396371

Analyst: LATCOR

Lab Batch ID: 831275

Sample: 831275-1-BKS

Batch #: 1

Date Prepared: 11/09/2010

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.34	93	10	9.27	93	1	75-125	20	

Analyst: LATCOR

Date Prepared: 11/09/2010

Date Analyzed: 11/09/2010

Lab Batch ID: 831277

Sample: 831277-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	10.4	104	10	10.7	107	3	75-125	20	

Analyst: BEV

Date Prepared: 11/08/2010

Date Analyzed: 11/09/2010

Lab Batch ID: 831198

Sample: 578252-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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	923	92	1000	941	94	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	919	92	1000	915	92	0	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: Lea Station Landfarm

Work Order #: 396371

Analyst: BEV

Lab Batch ID: 831285

Sample: 578294-1-BKS

Date Prepared: 11/08/2010

Batch #: 1

Project ID: 2004-00061

Date Analyzed: 11/10/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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	841	84	1000	796	80	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	874	87	1000	814	81	7	70-135	35	

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

Form 3 - MS Recoveries

Project Name: Lea Station Landfarm

Work Order #: 396371

Lab Batch #: 831275

Date Analyzed: 11/09/2010

QC- Sample ID: 396364-001 S

Reporting Units: mg/kg

Date Prepared: 11/09/2010

Batch #: 1

Project ID: 2004-00061

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	27.4	103	129	99	75-125	

Lab Batch #: 831277

Date Analyzed: 11/09/2010

QC- Sample ID: 396371-004 S

Reporting Units: mg/kg

Date Prepared: 11/09/2010

Batch #: 1

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	43.1	105	156	108	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative 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: Lea Station Landfarm

Work Order #: 396371

Lab Batch #: 831275
 Date Analyzed: 11/09/2010
 QC- Sample ID: 396364-001 D
 Reporting Units: mg/kg

Date Prepared: 11/09/2010
 Batch #: 1

Project ID: 2004-00061
 Analyst: LATCOR
 Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	27.4	25.5	7	20	

Lab Batch #: 831277
 Date Analyzed: 11/09/2010
 QC- Sample ID: 396371-004 D
 Reporting Units: mg/kg

Date Prepared: 11/09/2010
 Batch #: 1

Analyst: LATCOR
 Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	43.1	41.7	3	20	

Lab Batch #: 830971
 Date Analyzed: 11/08/2010
 QC- Sample ID: 396364-001 D
 Reporting Units: %

Date Prepared: 11/08/2010
 Batch #: 1

Analyst: JLG
 Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.93	2.73	7	20	

Lab Batch #: 830973
 Date Analyzed: 11/08/2010
 QC- Sample ID: 396371-004 D
 Reporting Units: %

Date Prepared: 11/08/2010
 Batch #: 1

Analyst: JLG
 Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	4.67	4.28	9	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



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: Basin Environmental
 Date/Time: 11-5-10 15:15
 Lab ID #: 396371
 Initials: AM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.6</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAP 5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 396373
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

11-NOV-10



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



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Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



11-NOV-10

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

Reference: XENCO Report No: **396373**
Lea Station Landfarm
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 396373. 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. 396373 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 396373



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell G G-1	S	Nov-01-10 10:05		396373-001
TZ Cell G G-2	S	Nov-01-10 10:10		396373-002
TZ Cell G G-3	S	Nov-01-10 10:15		396373-003
TZ Cell G G-4	S	Nov-01-10 10:20		396373-004
TZ Cell G G-5	S	Nov-01-10 10:25		396373-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 396373

Report Date: 11-NOV-10
Date Received: 11/05/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None



Certificate of Analysis Summary 396373

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2004-00061
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Fri Nov-05-10 03:15 pm
Report Date: 11-NOV-10
Project Manager: Brent Barron, II

<i>Analysis Requested</i>		Lab Id:	396373-001	396373-002	396373-003	396373-004	396373-005
		<i>Field Id:</i>	TZ Cell G G-1	TZ Cell G G-2	TZ Cell G G-3	TZ Cell G G-4	TZ Cell G G-5
		<i>Depth:</i>					
		<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Sampled:</i>	Nov-01-10 10:05	Nov-01-10 10:10	Nov-01-10 10:15	Nov-01-10 10:20	Nov-01-10 10:25
Anions by E300		<i>Extracted:</i>					
		<i>Analyzed:</i>	Nov-09-10 13:23	Nov-09-10 13:23	Nov-09-10 13:23	Nov-09-10 13:23	Nov-09-10 13:23
<i>Chloride</i>		<i>Units/RL:</i>	ND 4.25	6.53 4.28	11.3 4.28	17.8 4.27	ND 4.24
Percent Moisture		<i>Extracted:</i>					
		<i>Analyzed:</i>	Nov-08-10 14:45	Nov-08-10 14:45	Nov-09-10 08:15	Nov-09-10 08:15	Nov-09-10 08:15
<i>Percent Moisture</i>		<i>Units/RL:</i>	1.19 1.00	1.87 1.00	1.82 1.00	1.67 1.00	ND 1.00
TPH By SW8015 Mod		<i>Extracted:</i>	Nov-08-10 10:45	Nov-08-10 10:45	Nov-08-10 10:45	Nov-08-10 10:45	Nov-08-10 10:45
		<i>Analyzed:</i>	Nov-09-10 15:24	Nov-09-10 15:44	Nov-09-10 16:04	Nov-10-10 09:19	Nov-10-10 09:19
<i>C6-C12 Gasoline Range Hydrocarbons</i>		<i>Units/RL:</i>	mg/kg RL 24.0 15.2	mg/kg RL ND 15.2	mg/kg RL 19.2 15.3	mg/kg RL ND 15.2	mg/kg RL 24.5 15.1
<i>C12-C28 Diesel Range Hydrocarbons</i>			981 15.2	3370 15.2	2660 15.3	2270 15.2	886 15.1
<i>C28-C35 Oil Range Hydrocarbons</i>			33.6 15.2	98.1 15.2	71.6 15.3	63.4 15.2	23.2 15.1
<i>Total TPH</i>			1039 15.2	3468 15.2	2751 15.3	2333 15.2	934 15.1

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.

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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

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Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396373,

Project ID: 2004-00061

Lab Batch #: 831198

Sample: 578252-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 11/09/10 12:07					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.1	100	96	70-135	
o-Terphenyl	56.9	50.1	114	70-135	

Lab Batch #: 831198

Sample: 578252-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 11/09/10 12:26					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.4	100	98	70-135	
o-Terphenyl	63.5	50.1	127	70-135	

Lab Batch #: 831198

Sample: 578252-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 11/09/10 12:46					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.1	99.7	99	70-135	
o-Terphenyl	53.4	49.9	107	70-135	

Lab Batch #: 831198

Sample: 396373-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 11/09/10 15:24					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	61.6	50.2	123	70-135	

Lab Batch #: 831198

Sample: 396373-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 11/09/10 15:44					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.7	101	70-135	
o-Terphenyl	52.4	49.9	105	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396373,

Project ID: 2004-00061

Lab Batch #: 831198

Sample: 396373-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/09/10 16:04				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.3	100	98	70-135	
o-Terphenyl	55.4	50.0	111	70-135	

Lab Batch #: 831198

Sample: 396373-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 09:19				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.6	99.8	88	70-135	
o-Terphenyl	47.6	49.9	95	70-135	

Lab Batch #: 831198

Sample: 396373-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 09:19				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.7	99.7	100	70-135	
o-Terphenyl	52.6	49.9	105	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: Lea Station Landfarm

Work Order #: 396373

Analyst: LATCOR

Lab Batch ID: 831277

Sample: 831277-1-BKS

Date Prepared: 11/09/2010

Batch #: 1

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	10.4	104	10	10.7	107	3	75-125	20	

Analyst: BEV

Date Prepared: 11/08/2010

Date Analyzed: 11/09/2010

Lab Batch ID: 831198

Sample: 578252-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
TPH By SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	923	92	1000	941	94	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	919	92	1000	915	92	0	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 396373

Lab Batch #: 831277

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: LATCOR

QC- Sample ID: 396371-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	43.1	105	156	108	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative 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: Lea Station Landfarm

Work Order #: 396373

Lab Batch #: 831277

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: LATCOR

QC- Sample ID: 396371-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	43.1	41.7	3	20	

Lab Batch #: 830973

Date Analyzed: 11/08/2010

Date Prepared: 11/08/2010

Analyst: JLG

QC- Sample ID: 396371-004 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	4.67	4.28	9	20	

Lab Batch #: 831044

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: JLG

QC- Sample ID: 396373-003 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	1.82	1.99	9	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



XENCO Laboratories
 Atlanta, Boca Raton, Corpus Christi, Dallas
 Houston, Miami, Odessa, Phoenix, Wichita
 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: Basin Environmental
 Date/Time: 11-5-10 15:15
 Lab ID #: 396373
 Initials: LM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions completed on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs: <u>2.6</u> °C	lbs: °C	lbs: °C	lbs: °C	lbs: °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply.
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAP 4.6.8.3.1 a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 396375
for
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

11-NOV-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 (T104704215-10-6-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: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



11-NOV-10

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

Reference: XENCO Report No: **396375**
Lea Station Landfarm
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 396375. 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. 396375 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 396375



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell H G-1	S	Nov-01-10 10:30		396375-001
TZ Cell H G-2	S	Nov-01-10 10:35		396375-002
TZ Cell H G-3	S	Nov-01-10 10:40		396375-003



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 396375

Report Date: 11-NOV-10
Date Received: 11/05/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

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.

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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396375,

Project ID: 2004-00061

Lab Batch #: 831198

Sample: 578252-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/09/10 12:07				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.1	100	96	70-135	
o-Terphenyl	56.9	50.1	114	70-135	

Lab Batch #: 831198

Sample: 578252-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/09/10 12:26				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.4	100	98	70-135	
o-Terphenyl	63.5	50.1	127	70-135	

Lab Batch #: 831198

Sample: 578252-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/09/10 12:46				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.1	99.7	99	70-135	
o-Terphenyl	53.4	49.9	107	70-135	

Lab Batch #: 831198

Sample: 396375-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 09:19				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	99.5	105	70-135	
o-Terphenyl	57.0	49.8	114	70-135	

Lab Batch #: 831198

Sample: 396375-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/10/10 09:19				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.7	100	70-135	
o-Terphenyl	54.3	49.9	109	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 396375,

Project ID: 2004-00061

Lab Batch #: 831198

Sample: 396375-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 11/10/10 09:19

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	101	102	70-135	
o-Terphenyl	53.0	50.3	105	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: Lea Station Landfarm

Work Order #: 396375

Analyst: LATCOR

Lab Batch ID: 831277

Sample: 831277-1-BKS

Batch #: 1

Date Prepared: 11/09/2010

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	10.4	104	10	10.7	107	3	75-125	20	

Analyst: BEV

Date Prepared: 11/08/2010

Date Analyzed: 11/09/2010

Lab Batch ID: 831198

Sample: 578252-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
TPH By SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	923	92	1000	941	94	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	919	92	1000	915	92	0	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 396375

Lab Batch #: 831277

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: LATCOR

QC- Sample ID: 396371-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	43.1	105	156	108	75-125	

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

BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 396375

Lab Batch #: 831277

Project ID: 2004-00061

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: LATCOR

QC- Sample ID: 396371-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	43.1	41.7	3	20	

Lab Batch #: 831044

Date Analyzed: 11/09/2010

Date Prepared: 11/09/2010

Analyst: JLG

QC- Sample ID: 396373-003 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	1.82	1.99	9	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



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: Basin Environmental
 Date/Time: 11-5-10 15:15
 Lab ID#: 396375
 Initials: JM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and/or case?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>2.6</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply.
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAP §3.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376694

for

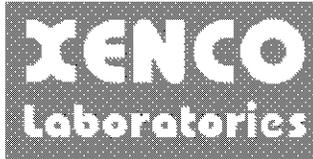
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)

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Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



16-JUN-10

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

Reference: XENCO Report No: **376694**
Lea Station Landfarm
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 376694. 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. 376694 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376694



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell A G-1	S	Jun-09-10 08:00		376694-001
VZ Cell A G-2	S	Jun-09-10 08:20		376694-002
VZ Cell A G-3	S	Jun-09-10 08:40		376694-003
VZ Cell A G-4	S	Jun-09-10 09:00		376694-004
VZ Cell A G-5	S	Jun-09-10 09:20		376694-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376694

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810301 Percent Moisture

None

*Batch: LBA-810414 BTEX by EPA 8021
SW8021BM*

*Batch 810414, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 376694-001,376694-005,376694-004,376694-003.*

SW8021BM

Batch 810414, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376694-001, -005, -003, -004.

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

Batch: LBA-810595 TPH by SW8015 Mod

None



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S
Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376694

Report Date: 16-JUN-10
Date Received: 06/10/2010

Batch: LBA-810601 BTEX by EPA 8021
SW8021BM

Batch 810601, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376694-002.

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

SW8021BM

Batch 810601, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376694-002.

Batch: LBA-810781 Inorganic Anions by EPA 300

None

Certificate of Analysis Summary 376694

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm

Report Date: 16-JUN-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		Lab Id:	376694-001	376694-002	376694-003	376694-004	376694-005
		Field Id:	VZ Cell A G-1	VZ Cell A G-2	VZ Cell A G-3	VZ Cell A G-4	VZ Cell A G-5
		Depth:					
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	Jun-09-10 08:00	Jun-09-10 08:20	Jun-09-10 08:40	Jun-09-10 09:00	Jun-09-10 09:20
BTEX by EPA 8021		Extracted:	Jun-11-10 10:30	Jun-14-10 08:00	Jun-11-10 10:30	Jun-11-10 10:30	Jun-11-10 10:30
		Analyzed:	Jun-11-10 16:41	Jun-14-10 15:17	Jun-11-10 17:26	Jun-11-10 17:48	Jun-11-10 18:11
		Units/RL:	mg/kg RL				
Benzene			ND 0.0012	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0012
Toluene			ND 0.0024	ND 0.0021	ND 0.0020	ND 0.0021	ND 0.0023
Ethylbenzene			ND 0.0012	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0012
m,p-Xylenes			ND 0.0024	ND 0.0021	ND 0.0020	ND 0.0021	ND 0.0023
o-Xylene			ND 0.0012	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0012
Xylenes, Total			ND 0.0012	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0012
Total BTEX			ND 0.0012	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0012
Inorganic Anions In Soil by E300		Extracted:					
		Analyzed:	Jun-14-10 09:21				
		Units/RL:	mg/kg RL				
Chloride			8.53 5.97	9.82 5.25	7.81 5.12	ND 5.21	7.60 5.76
Percent Moisture		Extracted:					
		Analyzed:	Jun-11-10 14:28				
		Units/RL:	% RL				
Percent Moisture			16.3 1.00	4.76 1.00	2.30 1.00	4.12 1.00	13.2 1.00
TPH by SW8015 Mod		Extracted:	Jun-11-10 14:30				
		Analyzed:	Jun-12-10 10:06	Jun-12-10 10:34	Jun-14-10 18:48	Jun-12-10 11:29	Jun-12-10 11:57
		Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons			ND 17.8	ND 15.7	ND 15.4	ND 15.6	ND 17.3
C12-C28 Diesel Range Hydrocarbons			ND 17.8	ND 15.7	ND 15.4	ND 15.6	ND 17.3
C28-C35 Oil Range Hydrocarbons			ND 17.8	ND 15.7	ND 15.4	ND 15.6	ND 17.3
Total TPH			ND 17.8	ND 15.7	ND 15.4	ND 15.6	ND 17.3

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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.

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Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376694,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 565602-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 06/11/10 14:48	SURROGATE RECOVERY STUDY			
BTEX 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	0.0288	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 06/11/10 15:10	SURROGATE RECOVERY STUDY			
BTEX 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	0.0287	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 06/11/10 16:18	SURROGATE RECOVERY STUDY			
BTEX 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	0.0302	0.0300	101	80-120	

Lab Batch #: 810414

Sample: 376694-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/11/10 16:41	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0233	0.0300	78	80-120	*
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 810414

Sample: 376694-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/11/10 17:26	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0236	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0288	0.0300	96	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376694,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 376694-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 17:48				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 810414

Sample: 376694-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 18:11				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0236	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 810414

Sample: 376694-001 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 20:38				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 810414

Sample: 376694-001 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 21:00				
BTEX by EPA 8021 Analytes	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	0.0296	0.0300	99	80-120	

Lab Batch #: 810601

Sample: 565716-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 08:50				
BTEX by EPA 8021 Analytes	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	0.0317	0.0300	106	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376694,

Project ID: 2004-00061

Lab Batch #: 810601

Sample: 565716-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 09:13				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 810601

Sample: 565716-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 10:21				
BTEX 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	0.0295	0.0300	98	80-120	

Lab Batch #: 810601

Sample: 376694-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 15:17				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 810601

Sample: 376694-002 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 15:40				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 810601

Sample: 376694-002 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 16:02				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376694,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 565721-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 17:46	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		112	99.8	112	70-135	
o-Terphenyl		51.0	49.9	102	70-135	

Lab Batch #: 810595

Sample: 565721-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:13	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		127	100	127	70-135	
o-Terphenyl		48.2	50.0	96	70-135	

Lab Batch #: 810595

Sample: 565721-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:41	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		109	99.5	110	70-135	
o-Terphenyl		51.1	49.8	103	70-135	

Lab Batch #: 810595

Sample: 376694-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 10:06	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		102	99.5	103	70-135	
o-Terphenyl		49.9	49.8	100	70-135	

Lab Batch #: 810595

Sample: 376694-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 10:34	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		101	100	101	70-135	
o-Terphenyl		49.4	50.0	99	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376694,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 376694-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 11:29

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.6	100	95	70-135	
o-Terphenyl	45.9	50.0	92	70-135	

Lab Batch #: 810595

Sample: 376694-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 11:57

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	99.9	96	70-135	
o-Terphenyl	47.6	50.0	95	70-135	

Lab Batch #: 810595

Sample: 376701-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:32

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.5	118	70-135	
o-Terphenyl	44.0	49.8	88	70-135	

Lab Batch #: 810595

Sample: 376701-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:59

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	41.6	49.8	84	70-135	

Lab Batch #: 810595

Sample: 376694-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 18:48

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	57.2	50.1	114	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: Lea Station Landfarm

Work Order #: 376694

Analyst: ASA

Lab Batch ID: 810414

Sample: 565602-1-BKS

Batch #: 1

Matrix: Solid

Project ID: 2004-00061

Date Analyzed: 06/11/2010

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0986	99	0.1	0.1002	100	2	70-130	35	
Toluene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	70-130	35	
Ethylbenzene	ND	0.1000	0.0988	99	0.1	0.1000	100	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.1984	99	0.2	0.2003	100	1	70-135	35	
o-Xylene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	71-133	35	

Analyst: ASA

Lab Batch ID: 810601

Sample: 565716-1-BKS

Batch #: 1

Matrix: Solid

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.1076	108	0.1	0.1053	105	2	70-130	35	
Toluene	ND	0.1000	0.1063	106	0.1	0.1033	103	3	70-130	35	
Ethylbenzene	ND	0.1000	0.1085	109	0.1	0.1046	105	4	71-129	35	
m,p-Xylenes	ND	0.2000	0.2185	109	0.2	0.2102	105	4	70-135	35	
o-Xylene	ND	0.1000	0.1075	108	0.1	0.1032	103	4	71-133	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: Lea Station Landfarm

Work Order #: 376694

Analyst: LATCOR

Lab Batch ID: 810781

Sample: 810781-1-BKS

Batch #: 1

Date Prepared: 06/14/2010

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.99	100	10	8.68	87	14	75-125	20	

Analyst: BEV

Date Prepared: 06/11/2010

Date Analyzed: 06/11/2010

Lab Batch ID: 810595

Sample: 565721-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	998	1170	117	1000	1130	113	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	861	86	1000	1010	101	16	70-135	35	

Relative Percent Difference $RPD = 200 * [(C-F)/(C+F)]$

Blank Spike Recovery $[D] = 100 * (C)/[B]$

Blank Spike Duplicate Recovery $[G] = 100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376694

Lab Batch #: 810781

Date Analyzed: 06/14/2010

QC- Sample ID: 376313-001 S

Reporting Units: mg/kg

Date Prepared: 06/14/2010

Batch #: 1

Project ID: 2004-00061

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	272	209	474	97	75-125	

Matrix Spike Percent Recovery [D] = $100 * (C - A) / B$
 Relative 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: Lea Station Landfarm

Work Order #: 376694

Project ID: 2004-00061

Lab Batch ID: 810414

Batch #: 1 Matrix: Soil

Date Analyzed: 06/12/2010

QC-Sample ID: 376694-001 S

Date Prepared: 06/11/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	BTEX by EPA 8021										
Benzene	ND	0.1197	0.0744	62	0.1200	0.0595	50	22	70-130	35	X
Toluene	ND	0.1197	0.0741	62	0.1200	0.0594	50	22	70-130	35	X
Ethylbenzene	ND	0.1197	0.0758	63	0.1200	0.0611	51	21	71-129	35	X
m,p-Xylenes	ND	0.2394	0.1515	63	0.2399	0.1239	52	20	70-135	35	X
o-Xylene	ND	0.1197	0.0750	63	0.1200	0.0610	51	21	71-133	35	X

Lab Batch ID: 810601

QC-Sample ID: 376694-002 S Batch #: 1 Matrix: Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	BTEX by EPA 8021										
Benzene	ND	0.1048	0.0678	65	0.1050	0.0720	69	6	70-130	35	X
Toluene	ND	0.1048	0.0670	64	0.1050	0.0713	68	6	70-130	35	X
Ethylbenzene	ND	0.1048	0.0683	65	0.1050	0.0725	69	6	71-129	35	X
m,p-Xylenes	ND	0.2096	0.1378	66	0.2100	0.1458	69	6	70-135	35	X
o-Xylene	ND	0.1048	0.0662	63	0.1050	0.0708	67	7	71-133	35	X

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 Applicable, N See Narrative, EQ Estimated Quantitation Limit



Form 3 - MS / MSD Recoveries

Project Name: Lea Station Landfarm



Work Order #: 376694

Project ID: 2004-00061

Lab Batch ID: 810595

QC-Sample ID: 376701-003 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/11/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY 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	ND	998	1040	104	998	953	95	9	70-135	35
C12-C28 Diesel Range Hydrocarbons	ND	998	1020	102	998	835	84	20	70-135	35	

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

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376694

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	272	255	6	20	

Lab Batch #: 810301

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376694-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	16.3	16.7	2	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 16:10
 Lab ID #: 376694
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376694
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376699

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376699**
Lea Station Landfarm
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 376699. 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. 376699 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376699



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell B G-1	S	Jun-09-10 09:40		376699-001
VZ Cell B G-2	S	Jun-09-10 10:00		376699-002
VZ Cell B G-3	S	Jun-09-10 10:15		376699-003
VZ Cell B G-4	S	Jun-09-10 10:30		376699-004
VZ Cell B G-5	S	Jun-09-10 10:45		376699-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376699

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810301 Percent Moisture

None

Batch: LBA-810414 BTEX by EPA 8021
SW8021BM

Batch 810414, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 376699-001,376699-005,376699-002.

SW8021BM

Batch 810414, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376699-005, -001, -002.

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

Batch: LBA-810595 TPH by SW8015 Mod
SW8015MOD_NM

Batch 810595, 1-Chlorooctane, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 376699-005.



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S
Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376699

Report Date: 16-JUN-10
Date Received: 06/10/2010

Batch: LBA-810601 BTEX by EPA 8021
SW8021BM

Batch 810601, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 376699-003.

SW8021BM

Batch 810601, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376699-004, -003.

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

Batch: LBA-810693 TPH by SW8015 Mod
None

Batch: LBA-810781 Inorganic Anions by EPA 300
None

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

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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 565602-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 14:48				
BTEX 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	0.0288	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 15:10				
BTEX 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	0.0287	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 16:18				
BTEX 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	0.0302	0.0300	101	80-120	

Lab Batch #: 810414

Sample: 376699-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 18:33				
BTEX 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	0.0287	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 376699-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 18:55				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0296	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 376699-005 / SMP

Batch: 1 Matrix: Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 06/12/10 15:45	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021 Analytes					
1,4-Difluorobenzene	0.0234	0.0300	78	80-120	*
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 810414

Sample: 376694-001 S / MS

Batch: 1 Matrix: Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 06/12/10 20:38	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021 Analytes					
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 810414

Sample: 376694-001 SD / MSD

Batch: 1 Matrix: Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 06/12/10 21:00	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021 Analytes					
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 810601

Sample: 565716-1-BKS / BKS

Batch: 1 Matrix: Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 06/14/10 08:50	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021 Analytes					
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 810601

Sample: 565716-1-BSD / BSD

Batch: 1 Matrix: Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 06/14/10 09:13	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021 Analytes					
1,4-Difluorobenzene	0.0316	0.0300	105	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810601

Sample: 565716-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 10:21				
BTEX 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	0.0295	0.0300	98	80-120	

Lab Batch #: 810601

Sample: 376694-002 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 15:40				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 810601

Sample: 376694-002 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 16:02				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 810601

Sample: 376699-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 17:09				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 810601

Sample: 376699-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 17:32				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0304	0.0300	101	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 565721-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 17:46	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		112	99.8	112	70-135	
o-Terphenyl		51.0	49.9	102	70-135	

Lab Batch #: 810595

Sample: 565721-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:13	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		127	100	127	70-135	
o-Terphenyl		48.2	50.0	96	70-135	

Lab Batch #: 810595

Sample: 565721-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:41	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		109	99.5	110	70-135	
o-Terphenyl		51.1	49.8	103	70-135	

Lab Batch #: 810595

Sample: 376699-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 12:25	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		76.0	99.5	76	70-135	
o-Terphenyl		37.8	49.8	76	70-135	

Lab Batch #: 810595

Sample: 376699-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 12:53	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		70.4	99.8	71	70-135	
o-Terphenyl		35.0	49.9	70	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 376699-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 11:02

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.4	99.8	88	70-135	
o-Terphenyl	42.3	49.9	85	70-135	

Lab Batch #: 810595

Sample: 376701-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:32

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.5	118	70-135	
o-Terphenyl	44.0	49.8	88	70-135	

Lab Batch #: 810595

Sample: 376701-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:59

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	41.6	49.8	84	70-135	

Lab Batch #: 810693

Sample: 565772-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/10 10:03

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	52.0	50.0	104	70-135	

Lab Batch #: 810693

Sample: 565772-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/10 10:30

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	54.2	50.0	108	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810693

Sample: 377064-002 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/15/10 11:51	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		128	99.5	129	70-135	
o-Terphenyl		50.6	49.8	102	70-135	

Lab Batch #: 810693

Sample: 377064-002 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/15/10 12:18	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		130	99.9	130	70-135	
o-Terphenyl		51.9	50.0	104	70-135	

Lab Batch #: 810693

Sample: 376699-005 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/15/10 13:13	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		120	99.6	120	70-135	
o-Terphenyl		55.1	49.8	111	70-135	

Lab Batch #: 810693

Sample: 376699-003 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/15/10 15:57	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		124	100	124	70-135	
o-Terphenyl		57.7	50.0	115	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.

Blank Spike Recovery

Project Name: Lea Station Landfarm

Work Order #: 376699

Project ID:

2004-00061

Lab Batch #: 810693

Sample: 565772-1-BKS

Matrix: Solid

Date Analyzed: 06/15/2010

Date Prepared: 06/15/2010

Analyst: ASA

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH by SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1170	117	70-135	
C12-C28 Diesel Range Hydrocarbons	ND	1000	818	82	70-135	

Blank Spike Recovery [D] – 100*[C]/[B]

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

BRL - Below Reporting Limit

Project Name: Lea Station Landfarm

Work Order #: 376699

Analyst: ASA

Lab Batch ID: 810414

Sample: 565602-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/11/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0986	99	0.1	0.1002	100	2	70-130	35	
Toluene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	70-130	35	
Ethylbenzene	ND	0.1000	0.0988	99	0.1	0.1000	100	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.1984	99	0.2	0.2003	100	1	70-135	35	
o-Xylene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	71-133	35	

Analyst: ASA

Lab Batch ID: 810601

Sample: 565716-1-BKS

Batch #: 1

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.1076	108	0.1	0.1053	105	2	70-130	35	
Toluene	ND	0.1000	0.1063	106	0.1	0.1033	103	3	70-130	35	
Ethylbenzene	ND	0.1000	0.1085	109	0.1	0.1046	105	4	71-129	35	
m,p-Xylenes	ND	0.2000	0.2185	109	0.2	0.2102	105	4	70-135	35	
o-Xylene	ND	0.1000	0.1075	108	0.1	0.1032	103	4	71-133	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: Lea Station Landfarm

Work Order #: 376699

Analyst: LATCOR

Lab Batch ID: 810781

Sample: 810781-1-BKS

Batch #: 1

Date Prepared: 06/14/2010

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Inorganic Anions In Soil by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Spike Added [E]	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
Chloride	ND	10.0	9.99	10	100	10	8.68	87	14	75-125	20	

Analyst: BEV

Date Prepared: 06/11/2010

Date Analyzed: 06/11/2010

Lab Batch ID: 810595

Sample: 565721-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Spike Added [E]	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	998	1170	1000	117	1000	1130	113	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	861	1000	86	1000	1010	101	16	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376699

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	272	209	474	97	75-125	

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

BRL - Below Reporting Limit

Project Name: Lea Station Landfarm

Work Order #: 376699

Project ID: 2004-00061

Lab Batch ID: 810414

QC-Sample ID: 376694-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/12/2010

Date Prepared: 06/11/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample %R Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	BTEX by EPA 8021										
Benzene	ND	0.1197	0.0744	62	0.1200	0.0595	50	22	70-130	35	X
Toluene	ND	0.1197	0.0741	62	0.1200	0.0594	50	22	70-130	35	X
Ethylbenzene	ND	0.1197	0.0758	63	0.1200	0.0611	51	21	71-129	35	X
m,p-Xylenes	ND	0.2394	0.1515	63	0.2399	0.1239	52	20	70-135	35	X
o-Xylene	ND	0.1197	0.0750	63	0.1200	0.0610	51	21	71-133	35	X

Lab Batch ID: 810601

QC-Sample ID: 376694-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample %R Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	BTEX by EPA 8021										
Benzene	ND	0.1048	0.0678	65	0.1050	0.0720	69	6	70-130	35	X
Toluene	ND	0.1048	0.0670	64	0.1050	0.0713	68	6	70-130	35	X
Ethylbenzene	ND	0.1048	0.0683	65	0.1050	0.0725	69	6	71-129	35	X
m,p-Xylenes	ND	0.2096	0.1378	66	0.2100	0.1458	69	6	70-135	35	X
o-Xylene	ND	0.1048	0.0662	63	0.1050	0.0708	67	7	71-133	35	X

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 Applicable, N See Narrative, EQ Estimated Quantitation Limit



Form 3 - MS / MSD Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376699

Project ID: 2004-00061

Lab Batch ID: 810595

QC-Sample ID: 376701-003 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/11/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	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	ND	998	1040	104	104	998	953	95	9	70-135	35
C12-C28 Diesel Range Hydrocarbons	ND	998	1020	102	102	998	835	84	20	70-135	35	

Lab Batch ID: 810693

QC-Sample ID: 377064-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/15/2010

Date Prepared: 06/15/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	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	ND	1070	1230	115	115	1070	1290	121	5	70-135	35
C12-C28 Diesel Range Hydrocarbons	ND	1070	849	79	79	1070	881	82	4	70-135	35	

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

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376699

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	272	255	6	20	

Lab Batch #: 810301

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376694-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	16.3	16.7	2	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376699
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376699
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376700

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376700**
Lea Station Landfarm
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 376700. 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. 376700 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376700



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell C G-1	S	Jun-09-10 11:00		376700-001
VZ Cell C G-2	S	Jun-09-10 11:15		376700-002
VZ Cell C G-3	S	Jun-09-10 11:30		376700-003
VZ Cell C G-4	S	Jun-09-10 11:45		376700-004
VZ Cell C G-5	S	Jun-09-10 12:00		376700-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376700

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810301 Percent Moisture

None

Batch: LBA-810414 BTEX by EPA 8021
SW8021BM

Batch 810414, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376700-004, -002, -003, -005, -001.

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

SW8021BM

Batch 810414, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376700-001,376700-005,376700-003,376700-002.

Batch: LBA-810595 TPH by SW8015 Mod

None

Batch: LBA-810781 Inorganic Anions by EPA 300

None

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.

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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376700,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 565602-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 14:48				
BTEX 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	0.0288	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 15:10				
BTEX 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	0.0287	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 16:18				
BTEX 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	0.0302	0.0300	101	80-120	

Lab Batch #: 810414

Sample: 376700-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 16:52				
BTEX 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	0.0280	0.0300	93	80-120	

Lab Batch #: 810414

Sample: 376700-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 17:15				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0294	0.0300	98	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376700,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 376700-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 17:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 810414

Sample: 376700-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 18:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 810414

Sample: 376700-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 18:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 810414

Sample: 376694-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 20:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 810414

Sample: 376694-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 21:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	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	0.0296	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376700,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 565721-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 17:46	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		112	99.8	112	70-135	
o-Terphenyl		51.0	49.9	102	70-135	

Lab Batch #: 810595

Sample: 565721-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:13	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		127	100	127	70-135	
o-Terphenyl		48.2	50.0	96	70-135	

Lab Batch #: 810595

Sample: 565721-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:41	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		109	99.5	110	70-135	
o-Terphenyl		51.1	49.8	103	70-135	

Lab Batch #: 810595

Sample: 376700-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/14/10 13:22	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		96.0	99.7	96	70-135	
o-Terphenyl		47.1	49.9	94	70-135	

Lab Batch #: 810595

Sample: 376700-003 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/14/10 13:49	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		103	100	103	70-135	
o-Terphenyl		50.3	50.1	100	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376700,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 376700-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 14:16

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	101	111	70-135	
o-Terphenyl	53.6	50.3	107	70-135	

Lab Batch #: 810595

Sample: 376700-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 14:43

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.7	101	98	70-135	
o-Terphenyl	47.9	50.3	95	70-135	

Lab Batch #: 810595

Sample: 376701-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:32

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.5	118	70-135	
o-Terphenyl	44.0	49.8	88	70-135	

Lab Batch #: 810595

Sample: 376701-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:59

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	41.6	49.8	84	70-135	

Lab Batch #: 810595

Sample: 376700-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 18:21

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	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: Lea Station Landfarm

Work Order #: 376700

Analyst: ASA

Lab Batch ID: 810414

Sample: 565602-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/11/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0986	99	0.1	0.1002	100	2	70-130	35	
Toluene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	70-130	35	
Ethylbenzene	ND	0.1000	0.0988	99	0.1	0.1000	100	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.1984	99	0.2	0.2003	100	1	70-135	35	
o-Xylene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	71-133	35	

Analyst: LATCOR

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Lab Batch ID: 810781

Sample: 810781-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Inorganic Anions In Soil by E300											
Chloride	ND	10.0	9.99	100	10	8.68	87	14	75-125	20	

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: Lea Station Landfarm

Work Order #: 376700

Analyst: BEV

Lab Batch ID: 810595

Sample: 565721-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/11/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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	998	1170	117	1000	1130	113	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	861	86	1000	1010	101	16	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376700

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	272	209	474	97	75-125	

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

BRL - Below Reporting Limit

Project Name: Lea Station Landfarm

Work Order # : 376700

Project ID: 2004-00061

Lab Batch ID: 810414

Batch #: 1 **Matrix:** Soil

Date Analyzed: 06/12/2010

QC-Sample ID: 376694-001 S

Date Prepared: 06/11/2010 **Analyst:** ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample %R Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Toluene	ND	0.1197	0.0741	62	0.1200	0.0594	50	22	70-130	35	X
Ethylbenzene	ND	0.1197	0.0758	63	0.1200	0.0611	51	21	71-129	35	X
m,p-Xylenes	ND	0.2394	0.1515	63	0.2399	0.1239	52	20	70-135	35	X
o-Xylene	ND	0.1197	0.0750	63	0.1200	0.0610	51	21	71-133	35	X

Lab Batch ID: 810595

QC-Sample ID: 376701-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/11/2010 **Analyst:** BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample %R Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	998	1020	102	998	835	84	20	70-135	35	

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376700

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	272	255	6	20	

Lab Batch #: 810301

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376694-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	16.3	16.7	2	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376700
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376700
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376701

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376701**
Lea Station Landfarm
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 376701. 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. 376701 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376701



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell D G-1	S	Jun-09-10 12:20		376701-001
VZ Cell D G-2	S	Jun-09-10 12:40		376701-002
VZ Cell D G-3	S	Jun-09-10 13:00		376701-003
VZ Cell D G-4	S	Jun-09-10 13:20		376701-004
VZ Cell D G-5	S	Jun-09-10 13:40		376701-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376701

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810301 Percent Moisture

None

Batch: LBA-810414 BTEX by EPA 8021
SW8021BM

Batch 810414, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 376701-001,376701-005,376701-003,376701-002.

SW8021BM

Batch 810414, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376701-001, -005, -003, -002, -004.

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

Batch: LBA-810595 TPH by SW8015 Mod

None

Batch: LBA-810644 TPH by SW8015 Mod

None

Batch: LBA-810781 Inorganic Anions by EPA 300

None

Batch: LBA-810796 Inorganic Anions by EPA 300

None



Certificate of Analysis Summary 376701

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm

Report Date: 16-JUN-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		Lab Id:	376701-001	376701-002	376701-003	376701-004	376701-005
		Field Id:	VZ Cell D G-1	VZ Cell D G-2	VZ Cell D G-3	VZ Cell D G-4	VZ Cell D G-5
		Depth:					
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	Jun-09-10 12:20	Jun-09-10 12:40	Jun-09-10 13:00	Jun-09-10 13:20	Jun-09-10 13:40
BTEX by EPA 8021		Extracted:	Jun-11-10 10:30				
		Analyzed:	Jun-12-10 18:45	Jun-12-10 19:08	Jun-12-10 19:30	Jun-12-10 19:53	Jun-12-10 20:15
		Units/RL:	mg/kg RL				
Benzene			ND 0.0010				
Toluene			ND 0.0021	ND 0.0020	ND 0.0020	ND 0.0021	ND 0.0021
Ethylbenzene			ND 0.0010				
m,p-Xylenes			ND 0.0021	ND 0.0020	ND 0.0020	ND 0.0021	ND 0.0021
o-Xylene			ND 0.0010				
Xylenes, Total			ND 0.0010				
Total BTEX			ND 0.0010				
Inorganic Anions In Soil by E300		Extracted:					
		Analyzed:	Jun-14-10 09:21	Jun-14-10 09:21	Jun-14-10 09:21	Jun-14-10 19:11	Jun-14-10 19:11
		Units/RL:	mg/kg RL				
Chloride			ND 5.21	13.1 5.09	ND 5.01	5.94 5.21	22.7 5.10
Percent Moisture		Extracted:					
		Analyzed:	Jun-11-10 14:28				
		Units/RL:	% RL				
Percent Moisture			4.10 1.00	1.80 1.00	ND 1.00	4.08 1.00	1.92 1.00
TPH by SW8015 Mod		Extracted:	Jun-11-10 14:30				
		Analyzed:	Jun-14-10 15:10	Jun-14-10 15:38	Jun-14-10 16:05	Jun-14-10 22:49	Jun-14-10 23:16
		Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons			ND 15.7	ND 15.3	ND 15.0	ND 15.6	ND 15.2
C12-C28 Diesel Range Hydrocarbons			ND 15.7	ND 15.3	ND 15.0	ND 15.6	ND 15.2
C28-C35 Oil Range Hydrocarbons			ND 15.7	ND 15.3	ND 15.0	ND 15.6	ND 15.2
Total TPH			ND 15.7	ND 15.3	ND 15.0	ND 15.6	ND 15.2

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.

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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.

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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



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376701,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 565602-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 14:48	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0293	0.0300	98	80-120	
4-Bromofluorobenzene		0.0288	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 15:10	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0293	0.0300	98	80-120	
4-Bromofluorobenzene		0.0287	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 16:18	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0241	0.0300	80	80-120	
4-Bromofluorobenzene		0.0302	0.0300	101	80-120	

Lab Batch #: 810414

Sample: 376701-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 18:45	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene		0.0296	0.0300	99	80-120	

Lab Batch #: 810414

Sample: 376701-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 19:08	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene		0.0301	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

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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376701,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 376701-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 19:30				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 376701-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 19:53				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 810414

Sample: 376701-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 20:15				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 810414

Sample: 376694-001 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 20:38				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 810414

Sample: 376694-001 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 21:00				
BTEX by EPA 8021 Analytes	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	0.0296	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376701,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 565721-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 17:46				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.8	112	70-135	
o-Terphenyl	51.0	49.9	102	70-135	

Lab Batch #: 810595

Sample: 565721-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 18:13				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	48.2	50.0	96	70-135	

Lab Batch #: 810595

Sample: 565721-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 18:41				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.5	110	70-135	
o-Terphenyl	51.1	49.8	103	70-135	

Lab Batch #: 810595

Sample: 376701-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 15:10				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	50.3	50.2	100	70-135	

Lab Batch #: 810595

Sample: 376701-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 15:38				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	48.2	50.1	96	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376701,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 376701-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:05

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.0	99.5	96	70-135	
o-Terphenyl	45.3	49.8	91	70-135	

Lab Batch #: 810595

Sample: 376701-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:32

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.5	118	70-135	
o-Terphenyl	44.0	49.8	88	70-135	

Lab Batch #: 810595

Sample: 376701-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:59

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	41.6	49.8	84	70-135	

Lab Batch #: 810644

Sample: 565718-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 21:29

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	132	99.8	132	70-135	
o-Terphenyl	51.0	49.9	102	70-135	

Lab Batch #: 810644

Sample: 565718-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 21:56

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.7	128	70-135	
o-Terphenyl	49.2	49.9	99	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376701,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 565718-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 22:23

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	51.9	49.8	104	70-135	

Lab Batch #: 810644

Sample: 376701-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 22:49

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.7	99.8	100	70-135	
o-Terphenyl	47.4	49.9	95	70-135	

Lab Batch #: 810644

Sample: 376701-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 23:16

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	99.6	98	70-135	
o-Terphenyl	46.1	49.8	93	70-135	

Lab Batch #: 810644

Sample: 376705-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:12

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	49.3	50.2	98	70-135	

Lab Batch #: 810644

Sample: 376705-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
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.

Project Name: Lea Station Landfarm

Work Order #: 376701

Analyst: ASA

Lab Batch ID: 810414

Sample: 565602-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/11/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0986	99	0.1	0.1002	100	2	70-130	35	
Toluene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	70-130	35	
Ethylbenzene	ND	0.1000	0.0988	99	0.1	0.1000	100	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.1984	99	0.2	0.2003	100	1	70-135	35	
o-Xylene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	71-133	35	

Analyst: LATCOR

Lab Batch ID: 810781

Sample: 810781-1-BKS

Batch #: 1

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Inorganic Anions In Soil by E300											
Chloride	ND	10.0	9.99	100	10	8.68	87	14	75-125	20	

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: Lea Station Landfarm

Work Order #: 376701

Analyst: LATCOR

Lab Batch ID: 810796

Sample: 810796-1-BKS

Batch #: 1

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	8.62	86	10	9.52	95	10	75-125	20	

Analyst: BEV **Date Prepared:** 06/11/2010

Date Analyzed: 06/14/2010

Lab Batch ID: 810644

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	998	1150	115	997	1160	116	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	893	89	997	878	88	2	70-135	35	

Analyst: BEV **Date Prepared:** 06/11/2010

Date Analyzed: 06/11/2010

Lab Batch ID: 810595

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	998	1170	117	1000	1130	113	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	861	86	1000	1010	101	16	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376701

Lab Batch #: 810781

Date Analyzed: 06/14/2010

QC- Sample ID: 376313-001 S

Reporting Units: mg/kg

Date Prepared: 06/14/2010

Batch #: 1

Project ID: 2004-00061

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	272	209	474	97	75-125	

Lab Batch #: 810796

Date Analyzed: 06/14/2010

QC- Sample ID: 376701-004 S

Reporting Units: mg/kg

Date Prepared: 06/14/2010

Batch #: 1

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	5.94	104	113	103	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative 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: Lea Station Landfarm

Work Order #: 376701

Project ID: 2004-00061

Lab Batch ID: 810414

QC-Sample ID: 376694-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 06/12/2010

Date Prepared: 06/11/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1197	0.0744	62	0.1200	0.0595	50	22	70-130	35	X
Toluene	ND	0.1197	0.0741	62	0.1200	0.0594	50	22	70-130	35	X
Ethylbenzene	ND	0.1197	0.0758	63	0.1200	0.0611	51	21	71-129	35	X
m,p-Xylenes	ND	0.2394	0.1515	63	0.2399	0.1239	52	20	70-135	35	X
o-Xylene	ND	0.1197	0.0750	63	0.1200	0.0610	51	21	71-133	35	X

Lab Batch ID: 810595

QC-Sample ID: 376701-003 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/11/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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
TPH by SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	998	1040	104	998	953	95	9	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	1020	102	998	835	84	20	70-135	35	

Lab Batch ID: 810644

QC-Sample ID: 376705-003 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 06/15/2010

Date Prepared: 06/11/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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
TPH by SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1060	1140	108	1060	1140	108	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	889	84	1060	894	84	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 Applicable, N See Narrative, EQ Estimated Quantitation Limit

Project Name: Lea Station Landfarm

Work Order #: 376701

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	272	255	6	20	

Lab Batch #: 810796

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	5.94	ND	NC	20	

Lab Batch #: 810301

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376694-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	16.3	16.7	2	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376701
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant Project Name: Lea Station Landfarm
 Company Name: Basin Environmental Consulting, LLC Project #: 2004-00061
 Company Address: P.O. Box 381 Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260 PO #: PAA - J. Henry
 Telephone No: (575)605-7210 Fax No: (505) 396-1429 Report Format: Standard TRRP NPDES
 Sampler Signature: Camille Bryant e-mail: cibryant@basin-consulting.com

LAB # (lab use only)	ORDER #:	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filled	Total # of Containers	Preservation & # of Containers					Matrix	Analyze For:	
									DW - Drinking Water SL - Sludge	GW - Groundwater S - Soil/Sol	NP - Non-Portable Specby Oth	HNO ₃	HCl			H ₂ SO ₄
	376701	VZ Cell D G-1			6/9/10	1220		1	X						SOIL	TPH: 418.1 8015M 8015B TPH: TX 1005 TX 1006 Cations (Ca, Mg, Na, K) Anions (Cl, SO ₄ , Alkalinity) SAR / ESP / CEC Metals: As Ag Ba Cd Cr Pb Hg Se Volatiles Semivolatiles BTEX 8021B/5030 or BTEX 8260 N.O.R.M. RUSH TAT (Pre-Schedule) 24, 48, 72 hrs Standard TAT 4 DAY
		VZ Cell D G-2			6/9/10	1240		1	X						SOIL	X
		VZ Cell D G-3			6/9/10	1300		1	X						SOIL	X
		VZ Cell D G-4			6/9/10	1320		1	X						SOIL	X
		VZ Cell D G-5			6/9/10	1340		1	X						SOIL	X

Special Instructions:

Relinquished by: Camille Bryant Date: 6/10/10 Time: 1300
 Relinquished by: [Signature] Date: 6/10 Time: 1610
 Relinquished by: Andrea Sam Date: 6-10-10 Time: 16:15

Received by: [Signature] Date: 6-10 Time: 1300
 Received by: [Signature] Date: 6-10 Time: 1610
 Received by: Andrea Sam Date: 6-10-10 Time: 16:15

Laboratory Comments:
 VOCs Free of Headspace? N
 Custody seals on containers? N
 Sample Hand Delivered by Sampler/Client Rep.? N
 by Courier? N UPS N DHL N FedEx N Lone Star N
 Temperature Upon Receipt: 1.4 °C



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376701
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376702

for

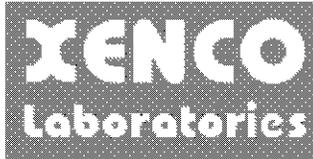
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376702**
Lea Station Landfarm
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 376702. 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. 376702 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376702



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell E G-1	S	Jun-09-10 14:00		376702-001
VZ Cell E G-2	S	Jun-09-10 14:20		376702-002
VZ Cell E G-3	S	Jun-09-10 14:40		376702-003
VZ Cell E G-4	S	Jun-09-10 15:00		376702-004



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061

Work Order Number: 376702

Report Date: 16-JUN-10

Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810308 Percent Moisture

None

Batch: LBA-810421 BTEX by EPA 8021

SW8021BM

Batch 810421, m,p-Xylenes RPD was outside QC limits.

Samples affected are: 376702-003, -001, -002, -004

SW8021BM

Batch 810421, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376702-003.

SW8021BM

Batch 810421, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376702-003, -001, -002, -004.

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

Batch: LBA-810644 TPH by SW8015 Mod

None

Batch: LBA-810796 Inorganic Anions by EPA 300

None



Certificate of Analysis Summary 376702

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2004-00061
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm
Report Date: 16-JUN-10
Project Manager: Brent Barron, II

Project Name: Lea Station Landfarm

<i>Analysis Requested</i>		376702-001 VZ Cell E G-1 SOIL	376702-002 VZ Cell E G-2 SOIL	376702-003 VZ Cell E G-3 SOIL	376702-004 VZ Cell E G-4 SOIL
BTEX by EPA 8021		Lab Id: 376702-001 Field Id: VZ Cell E G-1 Depth: Jun-09-10 14:00 Matrix: SOIL Sampled: Jun-11-10 10:45 Extracted: Jun-11-10 10:45 Analyzed: Jun-12-10 23:37 Units/RL: mg/kg RL	Lab Id: 376702-002 Field Id: VZ Cell E G-2 Depth: Jun-09-10 14:20 Matrix: SOIL Sampled: Jun-11-10 10:45 Extracted: Jun-11-10 10:45 Analyzed: Jun-13-10 01:06 Units/RL: mg/kg RL	Lab Id: 376702-003 Field Id: VZ Cell E G-3 Depth: Jun-09-10 14:40 Matrix: SOIL Sampled: Jun-11-10 10:45 Extracted: Jun-11-10 10:45 Analyzed: Jun-13-10 01:28 Units/RL: mg/kg RL	Lab Id: 376702-004 Field Id: VZ Cell E G-4 Depth: Jun-09-10 15:00 Matrix: SOIL Sampled: Jun-11-10 10:45 Extracted: Jun-11-10 10:45 Analyzed: Jun-13-10 01:51 Units/RL: mg/kg RL
Benzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010
Toluene		ND 0.0022	ND 0.0021	ND 0.0022	ND 0.0020
Ethylbenzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010
m,p-Xylenes		ND 0.0022	ND 0.0021	ND 0.0022	ND 0.0020
o-Xylene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010
Xylenes, Total		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010
Total BTEX		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010
Inorganic Anions In Soil by E300					
Extracted:					
Analyzed: Jun-14-10 19:11		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Units/RL:		ND 5.50	ND 5.26	6.87 5.50	5.38 5.08
Chloride					
Extracted:					
Analyzed: Jun-11-10 14:28		% RL	% RL	% RL	% RL
Units/RL:		9.12 1.00	4.92 1.00	9.06 1.00	1.64 1.00
Percent Moisture					
TPH by SW8015 Mod					
Extracted:					
Analyzed: Jun-11-10 14:30		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Units/RL:		ND 16.6	ND 15.7	ND 16.5	ND 15.3
C6-C12 Gasoline Range Hydrocarbons		ND 16.6	ND 15.7	ND 16.5	ND 15.3
C12-C28 Diesel Range Hydrocarbons		ND 16.6	ND 15.7	ND 16.5	ND 15.3
C28-C35 Oil Range Hydrocarbons		ND 16.6	ND 15.7	ND 16.5	ND 15.3
Total TPH		ND 16.6	ND 15.7	ND 16.5	ND 15.3

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.

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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

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842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376702,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 565604-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 21:45				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 810421

Sample: 565604-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 22:07				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 565604-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 23:15				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 810421

Sample: 376702-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 23:37				
BTEX 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	0.0307	0.0300	102	80-120	

Lab Batch #: 810421

Sample: 376702-001 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/13/10 00:00				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376702,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 376702-001 SD / MSD

Batch: 1 Matrix: Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/13/10 00:22				
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 810421

Sample: 376702-002 / SMP

Batch: 1 Matrix: Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/13/10 01:06				
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

Lab Batch #: 810421

Sample: 376702-003 / SMP

Batch: 1 Matrix: Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/13/10 01:28				
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0236	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 810421

Sample: 376702-004 / SMP

Batch: 1 Matrix: Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/13/10 01:51				
BTEX by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 810644

Sample: 565718-1-BKS / BKS

Batch: 1 Matrix: Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 21:29				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	132	99.8	132	70-135	
o-Terphenyl	51.0	49.9	102	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376702,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 565718-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 21:56

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.7	128	70-135	
o-Terphenyl	49.2	49.9	99	70-135	

Lab Batch #: 810644

Sample: 565718-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 22:23

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	51.9	49.8	104	70-135	

Lab Batch #: 810644

Sample: 376702-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 23:43

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.9	100	100	70-135	
o-Terphenyl	48.0	50.2	96	70-135	

Lab Batch #: 810644

Sample: 376702-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 00:09

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.0	99.5	99	70-135	
o-Terphenyl	47.5	49.8	95	70-135	

Lab Batch #: 810644

Sample: 376702-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 00:36

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	54.3	50.0	109	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376702,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 376702-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 01:02

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	47.4	50.1	95	70-135	

Lab Batch #: 810644

Sample: 376705-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:12

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	49.3	50.2	98	70-135	

Lab Batch #: 810644

Sample: 376705-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
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.

Project Name: Lea Station Landfarm

Work Order #: 376702

Analyst: ASA

Lab Batch ID: 810421

Sample: 565604-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/12/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0946	95	0.1	0.0998	100	5	70-130	35	
Toluene	ND	0.1000	0.0915	92	0.1	0.0960	96	5	70-130	35	
Ethylbenzene	ND	0.1000	0.0908	91	0.1	0.0957	96	5	71-129	35	
m,p-Xylenes	ND	0.2000	0.1791	90	0.2	0.1895	95	6	70-135	35	
o-Xylene	ND	0.1000	0.0905	91	0.1	0.0958	96	6	71-133	35	

Analyst: LATCOR

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Lab Batch ID: 810796

Sample: 810796-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Inorganic Anions In Soil by E300											
Chloride	ND	10.0	8.62	86	10	9.52	95	10	75-125	20	

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



BS / BSD Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376702

Analyst: BEV

Lab Batch ID: 810644

Sample: 565718-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

TPH by SW8015 Mod

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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	998	1150	115	997	1160	116	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	893	89	997	878	88	2	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376702

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	5.94	104	113	103	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376702

Project ID: 2004-00061

Lab Batch ID: 810421

Batch #: 1 Matrix: Soil

Date Analyzed: 06/13/2010

QC-Sample ID: 376702-001 S

Date Prepared: 06/11/2010 Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021											
Benzene	ND	0.1089	0.0679	62	0.1096	0.0662	60	3	70-130	35	X
Toluene	ND	0.1089	0.0596	55	0.1096	0.0549	50	8	70-130	35	X
Ethylbenzene	ND	0.1089	0.0666	61	0.1096	0.0618	56	7	71-129	35	X
m,p-Xylenes	ND	0.2179	0.0639	29	0.2192	0.0394	18	47	70-135	35	XF
o-Xylene	ND	0.1089	0.0642	59	0.1096	0.0598	55	7	71-133	35	X

Lab Batch ID: 810644

QC-Sample ID: 376705-003 S Batch #: 1 Matrix: Soil

Date Analyzed: 06/15/2010

Date Prepared: 06/11/2010 Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH by SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1060	1140	108	1060	1140	108	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	889	84	1060	894	84	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

Applicable N See Narrative, EQ Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376702

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	5.94	ND	NC	20	

Lab Batch #: 810308

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376702-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.12	8.67	5	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 374702
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 374702
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376703

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)

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Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



16-JUN-10

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

Reference: XENCO Report No: **376703**
Lea Station Landfarm
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 376703. 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. 376703 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376703



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell F G-1	S	Jun-10-10 08:00		376703-001
VZ Cell F G-2	S	Jun-10-10 08:20		376703-002
VZ Cell F G-3	S	Jun-10-10 08:40		376703-003
VZ Cell F G-4	S	Jun-10-10 09:00		376703-004
VZ Cell F G-5	S	Jun-10-10 09:20		376703-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376703

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810308 Percent Moisture

None

Batch: LBA-810421 BTEX by EPA 8021
SW8021BM

Batch 810421, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376703-005, -001, -003, -004.

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

SW8021BM

Batch 810421, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376703-001,376703-005,376703-003.

SW8021BM

Batch 810421, m,p-Xylenes RPD was outside QC limits.

Samples affected are: 376703-005, -001, -003, -004

Batch: LBA-810601 BTEX by EPA 8021
SW8021BM

Batch 810601, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376703-002.

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



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376703

Report Date: 16-JUN-10
Date Received: 06/10/2010

Batch: LBA-810644 TPH by SW8015 Mod
None

Batch: LBA-810796 Inorganic Anions by EPA 300
None

Certificate of Analysis Summary 376703

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm
Report Date: 16-JUN-10
Project Manager: Brent Barron, II

<i>Analysis Requested</i>		Lab Id:	376703-001	376703-002	376703-003	376703-004	376703-005
		Field Id:	VZ Cell F G-1	VZ Cell F G-2	VZ Cell F G-3	VZ Cell F G-4	VZ Cell F G-5
		Depth:	SOIL	SOIL	SOIL	SOIL	SOIL
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	Jun-10-10 08:00	Jun-10-10 08:20	Jun-10-10 08:40	Jun-10-10 09:00	Jun-10-10 09:20
BTEX by EPA 8021		Extracted:	Jun-11-10 10:45	Jun-14-10 08:00	Jun-11-10 10:45	Jun-11-10 10:45	Jun-11-10 10:45
		Analyzed:	Jun-13-10 02:14	Jun-14-10 16:47	Jun-13-10 02:58	Jun-13-10 03:21	Jun-13-10 03:43
		Units/RL:	mg/kg RL				
			ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0011
			ND 0.0020	ND 0.0023	ND 0.0021	ND 0.0020	ND 0.0021
			ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0011
			ND 0.0020	ND 0.0023	ND 0.0021	ND 0.0020	ND 0.0021
			ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0011
			ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0011
			ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0011
Inorganic Anions In Soil by E300		Extracted:					
		Analyzed:	Jun-14-10 19:11				
		Units/RL:	mg/kg RL				
			ND 5.01	ND 5.69	ND 5.22	7.90 5.08	18.2 5.33
Percent Moisture		Extracted:					
		Analyzed:	Jun-11-10 14:28				
		Units/RL:	% RL				
			ND 1.00	12.1 1.00	4.27 1.00	1.67 1.00	6.14 1.00
TPH by SW8015 Mod		Extracted:	Jun-11-10 14:30				
		Analyzed:	Jun-15-10 01:29	Jun-15-10 01:56	Jun-15-10 02:23	Jun-15-10 02:50	Jun-15-10 03:43
		Units/RL:	mg/kg RL				
			ND 14.9	ND 17.0	ND 15.7	ND 15.3	ND 15.9
			ND 14.9	ND 17.0	ND 15.7	ND 15.3	ND 15.9
			ND 14.9	ND 17.0	ND 15.7	ND 15.3	ND 15.9
			ND 14.9	ND 17.0	ND 15.7	ND 15.3	ND 15.9

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

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.

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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



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376703,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 565604-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/12/10 21:45	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0289	0.0300	96	80-120	
4-Bromofluorobenzene		0.0290	0.0300	97	80-120	

Lab Batch #: 810421

Sample: 565604-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/12/10 22:07	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0298	0.0300	99	80-120	
4-Bromofluorobenzene		0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 565604-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/12/10 23:15	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0240	0.0300	80	80-120	
4-Bromofluorobenzene		0.0289	0.0300	96	80-120	

Lab Batch #: 810421

Sample: 376702-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/13/10 00:00	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0287	0.0300	96	80-120	
4-Bromofluorobenzene		0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 376702-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/13/10 00:22	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0289	0.0300	96	80-120	
4-Bromofluorobenzene		0.0306	0.0300	102	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376703,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 376703-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 02:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 376703-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 02:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	80-120	*
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 810421

Sample: 376703-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 03:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 810421

Sample: 376703-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 03:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	80-120	*
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 810601

Sample: 565716-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 08:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	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	0.0317	0.0300	106	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376703,

Project ID: 2004-00061

Lab Batch #: 810601

Sample: 565716-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/14/10 09:13	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0316	0.0300	105	80-120
4-Bromofluorobenzene		0.0311	0.0300	104	80-120

Lab Batch #: 810601

Sample: 565716-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/14/10 10:21	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0242	0.0300	81	80-120
4-Bromofluorobenzene		0.0295	0.0300	98	80-120

Lab Batch #: 810601

Sample: 376694-002 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/14/10 15:40	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0285	0.0300	95	80-120
4-Bromofluorobenzene		0.0302	0.0300	101	80-120

Lab Batch #: 810601

Sample: 376694-002 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/14/10 16:02	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0285	0.0300	95	80-120
4-Bromofluorobenzene		0.0304	0.0300	101	80-120

Lab Batch #: 810601

Sample: 376703-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/14/10 16:47	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0240	0.0300	80	80-120
4-Bromofluorobenzene		0.0294	0.0300	98	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376703,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 565718-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/14/10 21:29		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		132	99.8	132	70-135	
o-Terphenyl		51.0	49.9	102	70-135	

Lab Batch #: 810644

Sample: 565718-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/14/10 21:56		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		128	99.7	128	70-135	
o-Terphenyl		49.2	49.9	99	70-135	

Lab Batch #: 810644

Sample: 565718-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/14/10 22:23		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		108	99.5	109	70-135	
o-Terphenyl		51.9	49.8	104	70-135	

Lab Batch #: 810644

Sample: 376703-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/15/10 01:29		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		103	99.5	104	70-135	
o-Terphenyl		47.5	49.8	95	70-135	

Lab Batch #: 810644

Sample: 376703-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/15/10 01:56		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		97.8	99.5	98	70-135	
o-Terphenyl		48.0	49.8	96	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376703,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 376703-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 02:23

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.0	99.9	95	70-135	
o-Terphenyl	46.8	50.0	94	70-135	

Lab Batch #: 810644

Sample: 376703-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 02:50

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.5	101	96	70-135	
o-Terphenyl	46.7	50.3	93	70-135	

Lab Batch #: 810644

Sample: 376703-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 03:43

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.6	99.5	97	70-135	
o-Terphenyl	47.5	49.8	95	70-135	

Lab Batch #: 810644

Sample: 376705-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:12

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	49.3	50.2	98	70-135	

Lab Batch #: 810644

Sample: 376705-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
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.

Project Name: Lea Station Landfarm

Work Order #: 376703

Analyst: ASA

Lab Batch ID: 810421

Sample: 565604-1-BKS

Batch #: 1

Matrix: Solid

Project ID: 2004-00061

Date Analyzed: 06/12/2010

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0946	95	0.1	0.0998	100	5	70-130	35	
Toluene	ND	0.1000	0.0915	92	0.1	0.0960	96	5	70-130	35	
Ethylbenzene	ND	0.1000	0.0908	91	0.1	0.0957	96	5	71-129	35	
m,p-Xylenes	ND	0.2000	0.1791	90	0.2	0.1895	95	6	70-135	35	
o-Xylene	ND	0.1000	0.0905	91	0.1	0.0958	96	6	71-133	35	

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Analyst: ASA

Sample: 565716-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.1076	108	0.1	0.1053	105	2	70-130	35	
Toluene	ND	0.1000	0.1063	106	0.1	0.1033	103	3	70-130	35	
Ethylbenzene	ND	0.1000	0.1085	109	0.1	0.1046	105	4	71-129	35	
m,p-Xylenes	ND	0.2000	0.2185	109	0.2	0.2102	105	4	70-135	35	
o-Xylene	ND	0.1000	0.1075	108	0.1	0.1032	103	4	71-133	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: Lea Station Landfarm

Work Order #: 376703

Analyst: LATCOR

Lab Batch ID: 810796

Sample: 810796-1-BKS

Batch #: 1

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Inorganic Anions In Soil by E300	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
Chloride	ND	10.0	8.62	86	10	9.52	95	10	75-125	20	

Analyst: BEV

Date Prepared: 06/11/2010

Date Analyzed: 06/14/2010

Lab Batch ID: 810644

Sample: 565718-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	998	1150	115	997	1160	116	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	893	89	997	878	88	2	70-135	35	

Relative Percent Difference $RPD = 200 * [(C-F)/(C+F)]$

Blank Spike Recovery $[D] = 100 * (C)/[B]$

Blank Spike Duplicate Recovery $[G] = 100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376703

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	5.94	104	113	103	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative 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: Lea Station Landfarm

Work Order #: 376703

Project ID: 2004-00061

Lab Batch ID: 810421

Batch #: 1 Matrix: Soil

Date Analyzed: 06/13/2010

QC-Sample ID: 376702-001 S

Date Prepared: 06/11/2010 Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021											
Benzene	ND	0.1089	0.0679	62	0.1096	0.0662	60	3	70-130	35	X
Toluene	ND	0.1089	0.0596	55	0.1096	0.0549	50	8	70-130	35	X
Ethylbenzene	ND	0.1089	0.0666	61	0.1096	0.0618	56	7	71-129	35	X
m,p-Xylenes	ND	0.2179	0.0639	29	0.2192	0.0394	18	47	70-135	35	XF
o-Xylene	ND	0.1089	0.0642	59	0.1096	0.0598	55	7	71-133	35	X

Lab Batch ID: 810601

QC-Sample ID: 376694-002 S Batch #: 1 Matrix: Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010 Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021											
Benzene	ND	0.1048	0.0678	65	0.1050	0.0720	69	6	70-130	35	X
Toluene	ND	0.1048	0.0670	64	0.1050	0.0713	68	6	70-130	35	X
Ethylbenzene	ND	0.1048	0.0683	65	0.1050	0.0725	69	6	71-129	35	X
m,p-Xylenes	ND	0.2096	0.1378	66	0.2100	0.1458	69	6	70-135	35	X
o-Xylene	ND	0.1048	0.0662	63	0.1050	0.0708	67	7	71-133	35	X

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 Applicable, N See Narrative, EQ Estimated Quantitation Limit



Form 3 - MS / MSD Recoveries

Project Name: Lea Station Landfarm



Work Order #: 376703

Project ID: 2004-00061

Lab Batch ID: 810644

QC-Sample ID: 376705-003 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/15/2010

Date Prepared: 06/11/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	TPH by SW8015 Mod	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
		ND	1060	1140	108	1060	1140	108	0	70-135	35	
C6-C12 Gasoline Range Hydrocarbons		ND	1060	1140	108	1060	1140	108	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	1060	889	84	1060	894	84	1	70-135	35	

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

Matrix Spike Duplicate Percent Recovery [G] $100 \times (F-A) / E$

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376703

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	5.94	ND	NC	20	

Lab Batch #: 810308

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376702-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.12	8.67	5	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376703
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 374703
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>NO</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376704

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376704**
Lea Station Landfarm
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 376704. 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. 376704 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 376704



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell G G-1	S	Jun-10-10 09:40		376704-001
VZ Cell G G-2	S	Jun-10-10 10:00		376704-002
VZ Cell G G-3	S	Jun-10-10 10:20		376704-003
VZ Cell G G-4	S	Jun-10-10 10:40		376704-004
VZ Cell G G-5	S	Jun-10-10 11:00		376704-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061

Work Order Number: 376704

Report Date: 16-JUN-10

Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810308 Percent Moisture

None

Batch: LBA-810421 BTEX by EPA 8021

SW8021BM

Batch 810421, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376704-001,376704-005,376704-004,376704-003.

SW8021BM

Batch 810421, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376704-002, -001, -005, -003, -004.

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

SW8021BM

Batch 810421, m,p-Xylenes RPD was outside QC limits.

Samples affected are: 376704-002, -001, -005, -003, -004

Batch: LBA-810644 TPH by SW8015 Mod

None

Batch: LBA-810796 Inorganic Anions by EPA 300

None

Certificate of Analysis Summary 376704

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm

Report Date: 16-JUN-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		Lab Id:	376704-001	376704-002	376704-003	376704-004	376704-005
Field Id:	Depth:	VZ Cell G G-1	VZ Cell G G-2	VZ Cell G G-3	VZ Cell G G-4	VZ Cell G G-5	VZ Cell G G-5
Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:		Jun-10-10 09:40	Jun-10-10 10:00	Jun-10-10 10:20	Jun-10-10 10:40	Jun-10-10 11:00	Jun-10-10 11:00
BTEX by EPA 8021		<i>Extracted:</i>	Jun-11-10 10:45				
		<i>Analyzed:</i>	Jun-13-10 04:06	Jun-13-10 05:36	Jun-13-10 05:59	Jun-13-10 06:21	Jun-13-10 06:21
		<i>Units/RL:</i>	mg/kg RL				
Benzene			ND 0.0010	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0011
Toluene			ND 0.0020	ND 0.0021	ND 0.0021	ND 0.0020	ND 0.0021
Ethylbenzene			ND 0.0010	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0011
m,p-Xylenes			ND 0.0020	ND 0.0021	ND 0.0021	ND 0.0020	ND 0.0021
o-Xylene			ND 0.0010	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0011
Xylenes, Total			ND 0.0010	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0011
Total BTEX			ND 0.0010	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0011
Inorganic Anions In Soil by E300		<i>Extracted:</i>					
		<i>Analyzed:</i>	Jun-14-10 19:11				
		<i>Units/RL:</i>	mg/kg RL				
Chloride			8.87 5.06	10.9 5.21	8.70 5.31	6.58 5.02	6.79 5.33
Percent Moisture		<i>Extracted:</i>					
		<i>Analyzed:</i>	Jun-11-10 14:28				
		<i>Units/RL:</i>	% RL				
Percent Moisture			1.17 1.00	3.98 1.00	5.90 1.00	ND 1.00	6.25 1.00
TPH by SW8015 Mod		<i>Extracted:</i>	Jun-11-10 14:30				
		<i>Analyzed:</i>	Jun-15-10 04:10	Jun-15-10 04:37	Jun-15-10 05:03	Jun-15-10 05:31	Jun-15-10 05:57
		<i>Units/RL:</i>	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons			ND 15.2	ND 15.6	ND 15.9	ND 15.0	ND 16.0
C12-C28 Diesel Range Hydrocarbons			ND 15.2	ND 15.6	ND 15.9	ND 15.0	ND 16.0
C28-C35 Oil Range Hydrocarbons			ND 15.2	ND 15.6	ND 15.9	ND 15.0	ND 16.0
Total TPH			ND 15.2	ND 15.6	ND 15.9	ND 15.0	ND 16.0

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.

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Certified and approved by numerous States and Agencies.
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842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376704,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 565604-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 21:45	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0289	0.0300	96	80-120	
4-Bromofluorobenzene		0.0290	0.0300	97	80-120	

Lab Batch #: 810421

Sample: 565604-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 22:07	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0298	0.0300	99	80-120	
4-Bromofluorobenzene		0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 565604-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 23:15	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0240	0.0300	80	80-120	
4-Bromofluorobenzene		0.0289	0.0300	96	80-120	

Lab Batch #: 810421

Sample: 376702-001 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/13/10 00:00	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0287	0.0300	96	80-120	
4-Bromofluorobenzene		0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 376702-001 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/13/10 00:22	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0289	0.0300	96	80-120	
4-Bromofluorobenzene		0.0306	0.0300	102	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376704,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 376704-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 04:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 810421

Sample: 376704-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 05:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 810421

Sample: 376704-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 05:36

SURROGATE RECOVERY STUDY

BTEX 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	0.0281	0.0300	94	80-120	

Lab Batch #: 810421

Sample: 376704-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 05:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 810421

Sample: 376704-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 06:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0236	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0285	0.0300	95	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376704,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 565718-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 21:29				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	132	99.8	132	70-135	
o-Terphenyl	51.0	49.9	102	70-135	

Lab Batch #: 810644

Sample: 565718-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 21:56				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.7	128	70-135	
o-Terphenyl	49.2	49.9	99	70-135	

Lab Batch #: 810644

Sample: 565718-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 22:23				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	51.9	49.8	104	70-135	

Lab Batch #: 810644

Sample: 376704-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/15/10 04:10				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	100	96	70-135	
o-Terphenyl	45.7	50.1	91	70-135	

Lab Batch #: 810644

Sample: 376704-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/15/10 04:37				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.7	99.9	99	70-135	
o-Terphenyl	47.8	50.0	96	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376704,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 376704-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	98.5	99.8	99	70-135	
o-Terphenyl	48.5	49.9	97	70-135	

Lab Batch #: 810644

Sample: 376704-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	90.5	99.8	91	70-135	
o-Terphenyl	42.6	49.9	85	70-135	

Lab Batch #: 810644

Sample: 376704-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	50.7	50.0	101	70-135	

Lab Batch #: 810644

Sample: 376705-003 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	49.3	50.2	98	70-135	

Lab Batch #: 810644

Sample: 376705-003 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	124	100	124	70-135	
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.

Project Name: Lea Station Landfarm

Work Order #: 376704
Analyst: ASA
Lab Batch ID: 810421
Sample: 565604-1-BKS
Units: mg/kg

Date Prepared: 06/11/2010
Batch #: 1
Date Analyzed: 06/12/2010
Matrix: Solid

Project ID: 2004-00061

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0946	95	0.1	0.0998	100	5	70-130	35	
Toluene	ND	0.1000	0.0915	92	0.1	0.0960	96	5	70-130	35	
Ethylbenzene	ND	0.1000	0.0908	91	0.1	0.0957	96	5	71-129	35	
m,p-Xylenes	ND	0.2000	0.1791	90	0.2	0.1895	95	6	70-135	35	
o-Xylene	ND	0.1000	0.0905	91	0.1	0.0958	96	6	71-133	35	

Analyst: LATCOR
Lab Batch ID: 810796
Sample: 810796-1-BKS
Units: mg/kg

Date Prepared: 06/14/2010
Batch #: 1
Date Analyzed: 06/14/2010
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Inorganic Anions In Soil by E300											
Chloride	ND	10.0	8.62	86	10	9.52	95	10	75-125	20	

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: Lea Station Landfarm

Work Order #: 376704

Analyst: BEV

Lab Batch ID: 810644

Sample: 565718-1-BKS

Date Prepared: 06/11/2010

Batch #: 1

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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	998	1150	115	997	1160	116	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	893	89	997	878	88	2	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376704

Lab Batch #: 810796

Date Analyzed: 06/14/2010

QC- Sample ID: 376701-004 S

Reporting Units: mg/kg

Date Prepared: 06/14/2010

Batch #: 1

Project ID: 2004-00061

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	5.94	104	113	103	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative 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: Lea Station Landfarm

Work Order #: 376704

Project ID: 2004-00061

Lab Batch ID: 810421

Batch #: 1 Matrix: Soil

Date Analyzed: 06/13/2010

QC-Sample ID: 376702-001 S

Date Prepared: 06/11/2010 Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1089	0.0679	62	0.1096	0.0662	60	3	70-130	35	X
Toluene	ND	0.1089	0.0596	55	0.1096	0.0549	50	8	70-130	35	X
Ethylbenzene	ND	0.1089	0.0666	61	0.1096	0.0618	56	7	71-129	35	X
m,p-Xylenes	ND	0.2179	0.0639	29	0.2192	0.0394	18	47	70-135	35	XF
o-Xylene	ND	0.1089	0.0642	59	0.1096	0.0598	55	7	71-133	35	X

Lab Batch ID: 810644

QC-Sample ID: 376705-003 S Batch #: 1 Matrix: Soil

Date Analyzed: 06/15/2010

Date Prepared: 06/11/2010 Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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
TPH by SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1060	1140	108	1060	1140	108	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	889	84	1060	894	84	1	70-135	35	

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376704

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	5.94	ND	NC	20	

Lab Batch #: 810308

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376702-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.12	8.67	5	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376704
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376704
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376705

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)

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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)



16-JUN-10

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

Reference: XENCO Report No: **376705**
Lea Station Landfarm
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 376705. 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. 376705 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376705



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell H G-1	S	Jun-10-10 11:20		376705-001
VZ Cell H G-2	S	Jun-10-10 11:40		376705-002
VZ Cell H G-3	S	Jun-10-10 12:00		376705-003



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376705

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810308 Percent Moisture

None

Batch: LBA-810421 BTEX by EPA 8021
SW8021BM

Batch 810421, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376705-002, -003, -001.

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

SW8021BM

Batch 810421, m,p-Xylenes RPD was outside QC limits.

Samples affected are: 376705-002, -003, -001

SW8021BM

Batch 810421, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376705-002.

Batch: LBA-810644 TPH by SW8015 Mod

None

Batch: LBA-810796 Inorganic Anions by EPA 300

None



Certificate of Analysis Summary 376705

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2004-00061
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm
Report Date: 16-JUN-10
Project Manager: Brent Barron, II

Project Name: Lea Station Landfarm

<i>Analysis Requested</i>		Lab Id:	376705-001	376705-002	376705-003
		Field Id:	VZ Cell H G-1	VZ Cell H G-2	VZ Cell H G-3
		Depth:			
		Matrix:	SOIL	SOIL	SOIL
		Sampled:	Jun-10-10 11:20	Jun-10-10 11:40	Jun-10-10 12:00
BTEX by EPA 8021		Extracted:	Jun-11-10 10:45	Jun-11-10 10:45	Jun-11-10 10:45
		Analyzed:	Jun-13-10 06:43	Jun-13-10 07:06	Jun-13-10 07:28
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL
Benzene			ND 0.0011	ND 0.0010	ND 0.0011
Toluene			ND 0.0022	ND 0.0021	ND 0.0021
Ethylbenzene			ND 0.0011	ND 0.0010	ND 0.0011
m,p-Xylenes			ND 0.0022	ND 0.0021	ND 0.0021
o-Xylene			ND 0.0011	ND 0.0010	ND 0.0011
Xylenes, Total			ND 0.0011	ND 0.0010	ND 0.0011
Total BTEX			ND 0.0011	ND 0.0010	ND 0.0011
Inorganic Anions In Soil by E300		Extracted:			
		Analyzed:	Jun-14-10 19:11	Jun-14-10 19:11	Jun-14-10 19:11
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL
Chloride			11.4 5.42	ND 5.24	ND 5.26
Percent Moisture		Extracted:			
		Analyzed:	Jun-11-10 14:28	Jun-11-10 14:28	Jun-11-10 14:28
		Units/RL:	% RL	% RL	% RL
Percent Moisture			7.74 1.00	4.49 1.00	5.03 1.00
TPH by SW8015 Mod		Extracted:	Jun-11-10 14:30	Jun-11-10 14:30	Jun-11-10 14:30
		Analyzed:	Jun-15-10 06:25	Jun-15-10 06:51	Jun-15-10 07:18
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons			ND 16.3	ND 15.6	ND 15.8
C12-C28 Diesel Range Hydrocarbons			ND 16.3	ND 15.6	ND 15.8
C28-C35 Oil Range Hydrocarbons			ND 16.3	ND 15.6	ND 15.8
Total TPH			ND 16.3	ND 15.6	ND 15.8

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 user 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.

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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376705,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 565604-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 21:45				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 810421

Sample: 565604-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 22:07				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 565604-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 23:15				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 810421

Sample: 376702-001 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/13/10 00:00				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 376702-001 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/13/10 00:22				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376705,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 376705-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 06:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 810421

Sample: 376705-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 07:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 810421

Sample: 376705-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 07:28

SURROGATE RECOVERY STUDY

BTEX 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	0.0305	0.0300	102	80-120	

Lab Batch #: 810644

Sample: 565718-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 21:29

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	132	99.8	132	70-135	
o-Terphenyl	51.0	49.9	102	70-135	

Lab Batch #: 810644

Sample: 565718-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 21:56

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.7	128	70-135	
o-Terphenyl	49.2	49.9	99	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376705,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 565718-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 22:23				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	51.9	49.8	104	70-135	

Lab Batch #: 810644

Sample: 376705-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/15/10 06:25				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.5	100	97	70-135	
o-Terphenyl	47.5	50.1	95	70-135	

Lab Batch #: 810644

Sample: 376705-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/15/10 06:51				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.5	104	70-135	
o-Terphenyl	50.0	49.8	100	70-135	

Lab Batch #: 810644

Sample: 376705-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/15/10 07:18				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.6	99.8	98	70-135	
o-Terphenyl	47.3	49.9	95	70-135	

Lab Batch #: 810644

Sample: 376705-003 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/15/10 08:12				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	49.3	50.2	98	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376705,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 376705-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
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.

Project Name: Lea Station Landfarm

Work Order #: 376705

Analyst: ASA

Lab Batch ID: 810421

Sample: 565604-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/12/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0946	95	0.1	0.0998	100	5	70-130	35	
Toluene	ND	0.1000	0.0915	92	0.1	0.0960	96	5	70-130	35	
Ethylbenzene	ND	0.1000	0.0908	91	0.1	0.0957	96	5	71-129	35	
m,p-Xylenes	ND	0.2000	0.1791	90	0.2	0.1895	95	6	70-135	35	
o-Xylene	ND	0.1000	0.0905	91	0.1	0.0958	96	6	71-133	35	

Analyst: LATCOR

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Lab Batch ID: 810796

Sample: 810796-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Inorganic Anions In Soil by E300											
Chloride	ND	10.0	8.62	86	10	9.52	95	10	75-125	20	

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: Lea Station Landfarm

Work Order #: 376705

Analyst: BEV

Lab Batch ID: 810644

Sample: 565718-1-BKS

Date Prepared: 06/11/2010

Batch #: 1

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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	998	1150	115	997	1160	116	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	893	89	997	878	88	2	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376705

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	5.94	104	113	103	75-125	

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

BRL - Below Reporting Limit

Project Name: Lea Station Landfarm

Work Order # : 376705

Project ID: 2004-00061

Lab Batch ID: 810421

Batch #: 1 **Matrix:** Soil

Date Analyzed: 06/13/2010

QC-Sample ID: 376702-001 S

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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
Toluene	ND	0.1089	0.0596	55	0.1096	0.0549	50	8	70-130	35	X
Ethylbenzene	ND	0.1089	0.0666	61	0.1096	0.0618	56	7	71-129	35	X
m,p-Xylenes	ND	0.2179	0.0639	29	0.2192	0.0394	18	47	70-135	35	XF
o-Xylene	ND	0.1089	0.0642	59	0.1096	0.0598	55	7	71-133	35	X

Lab Batch ID: 810644

QC-Sample ID: 376705-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/15/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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	ND	1060	889	84	1060	894	84	1	70-135	35	

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376705

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	5.94	ND	NC	20	

Lab Batch #: 810308

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376702-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.12	8.67	5	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376705
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376705
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<input checked="" type="radio"/> Water	No	
2. Shipping container in good condition?	<input checked="" type="radio"/> Yes	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<input checked="" type="radio"/> Yes	No	N/A	
4. Chain of Custody present?	<input checked="" type="radio"/> Yes	No		
5. Sample instructions complete on chain of custody?	<input checked="" type="radio"/> Yes	No		
6. Any missing / extra samples?	Yes	<input checked="" type="radio"/> No		
7. Chain of custody signed when relinquished / received?	<input checked="" type="radio"/> Yes	No		
8. Chain of custody agrees with sample label(s)?	<input checked="" type="radio"/> Yes	No		
9. Container labels legible and intact?	<input checked="" type="radio"/> Yes	No		
10. Sample matrix / properties agree with chain of custody?	<input checked="" type="radio"/> Yes	No		
11. Samples in proper container / bottle?	<input checked="" type="radio"/> Yes	No		
12. Samples properly preserved?	<input checked="" type="radio"/> Yes	No	N/A	
13. Sample container intact?	<input checked="" type="radio"/> Yes	No		
14. Sufficient sample amount for indicated test(s)?	<input checked="" type="radio"/> Yes	No		
15. All samples received within sufficient hold time?	<input checked="" type="radio"/> Yes	No		
16. Subcontract of sample(s)?	Yes	No	<input checked="" type="radio"/> N/A	
17. VOC sample have zero head space?	<input checked="" type="radio"/> Yes	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 1.4 °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376694

for

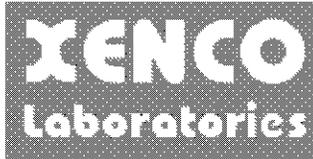
PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376694**
Lea Station Landfarm
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 376694. 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. 376694 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376694



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell A G-1	S	Jun-09-10 08:00		376694-001
VZ Cell A G-2	S	Jun-09-10 08:20		376694-002
VZ Cell A G-3	S	Jun-09-10 08:40		376694-003
VZ Cell A G-4	S	Jun-09-10 09:00		376694-004
VZ Cell A G-5	S	Jun-09-10 09:20		376694-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376694

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810301 Percent Moisture

None

Batch: LBA-810414 BTEX by EPA 8021
SW8021BM

Batch 810414, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 376694-001,376694-005,376694-004,376694-003.

SW8021BM

Batch 810414, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376694-001, -005, -003, -004.

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

Batch: LBA-810595 TPH by SW8015 Mod

None



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376694

Report Date: 16-JUN-10
Date Received: 06/10/2010

Batch: LBA-810601 BTEX by EPA 8021
SW8021BM

Batch 810601, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376694-002.

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

SW8021BM

Batch 810601, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376694-002.

Batch: LBA-810781 Inorganic Anions by EPA 300

None

Certificate of Analysis Summary 376694

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm

Report Date: 16-JUN-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		Lab Id:	376694-001	376694-002	376694-003	376694-004	376694-005
		Field Id:	VZ Cell A G-1	VZ Cell A G-2	VZ Cell A G-3	VZ Cell A G-4	VZ Cell A G-5
		Depth:					
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	Jun-09-10 08:00	Jun-09-10 08:20	Jun-09-10 08:40	Jun-09-10 09:00	Jun-09-10 09:20
BTEX by EPA 8021		Extracted:	Jun-11-10 10:30	Jun-14-10 08:00	Jun-11-10 10:30	Jun-11-10 10:30	Jun-11-10 10:30
		Analyzed:	Jun-11-10 16:41	Jun-14-10 15:17	Jun-11-10 17:26	Jun-11-10 17:48	Jun-11-10 18:11
		Units/RL:	mg/kg RL				
Benzene			ND 0.0012	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0012
Toluene			ND 0.0024	ND 0.0021	ND 0.0020	ND 0.0021	ND 0.0023
Ethylbenzene			ND 0.0012	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0012
m,p-Xylenes			ND 0.0024	ND 0.0021	ND 0.0020	ND 0.0021	ND 0.0023
o-Xylene			ND 0.0012	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0012
Xylenes, Total			ND 0.0012	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0012
Total BTEX			ND 0.0012	ND 0.0010	ND 0.0010	ND 0.0010	ND 0.0012
Inorganic Anions In Soil by E300		Extracted:					
		Analyzed:	Jun-14-10 09:21				
		Units/RL:	mg/kg RL				
Chloride			8.53 5.97	9.82 5.25	7.81 5.12	ND 5.21	ND 5.76
Percent Moisture		Extracted:					
		Analyzed:	Jun-11-10 14:28				
		Units/RL:	% RL				
Percent Moisture			16.3 1.00	4.76 1.00	2.30 1.00	4.12 1.00	13.2 1.00
TPH by SW8015 Mod		Extracted:	Jun-11-10 14:30				
		Analyzed:	Jun-12-10 10:06	Jun-12-10 10:34	Jun-14-10 18:48	Jun-12-10 11:29	Jun-12-10 11:57
		Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons			ND 17.8	ND 15.7	ND 15.4	ND 15.6	ND 17.3
C12-C28 Diesel Range Hydrocarbons			ND 17.8	ND 15.7	ND 15.4	ND 15.6	ND 17.3
C28-C35 Oil Range Hydrocarbons			ND 17.8	ND 15.7	ND 15.4	ND 15.6	ND 17.3
Total TPH			ND 17.8	ND 15.7	ND 15.4	ND 15.6	ND 17.3

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.

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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

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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376694,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 565602-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 06/11/10 14:48	SURROGATE RECOVERY STUDY			
BTEX 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	0.0288	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 06/11/10 15:10	SURROGATE RECOVERY STUDY			
BTEX 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	0.0287	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 06/11/10 16:18	SURROGATE RECOVERY STUDY			
BTEX 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	0.0302	0.0300	101	80-120	

Lab Batch #: 810414

Sample: 376694-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/11/10 16:41	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0233	0.0300	78	80-120	*
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 810414

Sample: 376694-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/11/10 17:26	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0236	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0288	0.0300	96	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376694,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 376694-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 17:48				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 810414

Sample: 376694-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 18:11				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0236	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 810414

Sample: 376694-001 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 20:38				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 810414

Sample: 376694-001 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 21:00				
BTEX by EPA 8021 Analytes	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	0.0296	0.0300	99	80-120	

Lab Batch #: 810601

Sample: 565716-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 08:50				
BTEX by EPA 8021 Analytes	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	0.0317	0.0300	106	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376694,

Project ID: 2004-00061

Lab Batch #: 810601

Sample: 565716-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 09:13				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 810601

Sample: 565716-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 10:21				
BTEX 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	0.0295	0.0300	98	80-120	

Lab Batch #: 810601

Sample: 376694-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 15:17				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 810601

Sample: 376694-002 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 15:40				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 810601

Sample: 376694-002 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 16:02				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376694,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 565721-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 17:46	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		112	99.8	112	70-135	
o-Terphenyl		51.0	49.9	102	70-135	

Lab Batch #: 810595

Sample: 565721-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:13	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		127	100	127	70-135	
o-Terphenyl		48.2	50.0	96	70-135	

Lab Batch #: 810595

Sample: 565721-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:41	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		109	99.5	110	70-135	
o-Terphenyl		51.1	49.8	103	70-135	

Lab Batch #: 810595

Sample: 376694-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 10:06	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		102	99.5	103	70-135	
o-Terphenyl		49.9	49.8	100	70-135	

Lab Batch #: 810595

Sample: 376694-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 10:34	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		101	100	101	70-135	
o-Terphenyl		49.4	50.0	99	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376694,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 376694-004 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.6	100	95	70-135	
o-Terphenyl	45.9	50.0	92	70-135	

Lab Batch #: 810595

Sample: 376694-005 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	99.9	96	70-135	
o-Terphenyl	47.6	50.0	95	70-135	

Lab Batch #: 810595

Sample: 376701-003 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.5	118	70-135	
o-Terphenyl	44.0	49.8	88	70-135	

Lab Batch #: 810595

Sample: 376701-003 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	41.6	49.8	84	70-135	

Lab Batch #: 810595

Sample: 376694-003 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	57.2	50.1	114	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: Lea Station Landfarm

Work Order #: 376694

Analyst: ASA

Lab Batch ID: 810414

Sample: 565602-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/11/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0986	99	0.1	0.1002	100	2	70-130	35	
Toluene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	70-130	35	
Ethylbenzene	ND	0.1000	0.0988	99	0.1	0.1000	100	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.1984	99	0.2	0.2003	100	1	70-135	35	
o-Xylene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	71-133	35	

Analyst: ASA

Lab Batch ID: 810601

Sample: 565716-1-BKS

Batch #: 1

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.1076	108	0.1	0.1053	105	2	70-130	35	
Toluene	ND	0.1000	0.1063	106	0.1	0.1033	103	3	70-130	35	
Ethylbenzene	ND	0.1000	0.1085	109	0.1	0.1046	105	4	71-129	35	
m,p-Xylenes	ND	0.2000	0.2185	109	0.2	0.2102	105	4	70-135	35	
o-Xylene	ND	0.1000	0.1075	108	0.1	0.1032	103	4	71-133	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: Lea Station Landfarm

Work Order #: 376694

Analyst: LATCOR

Lab Batch ID: 810781

Sample: 810781-1-BKS

Batch #: 1

Date Prepared: 06/14/2010

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.99	100	10	8.68	87	14	75-125	20	

Analyst: BEV

Date Prepared: 06/11/2010

Date Analyzed: 06/11/2010

Lab Batch ID: 810595

Sample: 565721-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	998	1170	117	1000	1130	113	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	861	86	1000	1010	101	16	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376694

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	272	209	474	97	75-125	

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

BRL - Below Reporting Limit

Project Name: Lea Station Landfarm

Work Order #: 376694

Project ID: 2004-00061

Lab Batch ID: 810414

QC-Sample ID: 376694-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/12/2010

Date Prepared: 06/11/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
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	
BTEX by EPA 8021												
Benzene	ND	0.1197	0.0744	62	0.1200	0.0595	50	22	70-130	35	X	
Toluene	ND	0.1197	0.0741	62	0.1200	0.0594	50	22	70-130	35	X	
Ethylbenzene	ND	0.1197	0.0758	63	0.1200	0.0611	51	21	71-129	35	X	
m,p-Xylenes	ND	0.2394	0.1515	63	0.2399	0.1239	52	20	70-135	35	X	
o-Xylene	ND	0.1197	0.0750	63	0.1200	0.0610	51	21	71-133	35	X	

Lab Batch ID: 810601

QC-Sample ID: 376694-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
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	
BTEX by EPA 8021												
Benzene	ND	0.1048	0.0678	65	0.1050	0.0720	69	6	70-130	35	X	
Toluene	ND	0.1048	0.0670	64	0.1050	0.0713	68	6	70-130	35	X	
Ethylbenzene	ND	0.1048	0.0683	65	0.1050	0.0725	69	6	71-129	35	X	
m,p-Xylenes	ND	0.2096	0.1378	66	0.2100	0.1458	69	6	70-135	35	X	
o-Xylene	ND	0.1048	0.0662	63	0.1050	0.0708	67	7	71-133	35	X	

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 Applicable, N See Narrative, EQ Estimated Quantitation Limit



Form 3 - MS / MSD Recoveries

Project Name: Lea Station Landfarm



Work Order #: 376694

Project ID: 2004-00061

Lab Batch ID: 810595

QC-Sample ID: 376701-003 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/11/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	TPH by SW8015 Mod	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
		ND	998	1040	104	998	953	95	9	70-135	35	
C6-C12 Gasoline Range Hydrocarbons		ND	998	1040	104	998	953	95	9	70-135	35	
C12-C28 Diesel Range Hydrocarbons		ND	998	1020	102	998	835	84	20	70-135	35	

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

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376694

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	272	255	6	20	

Lab Batch #: 810301

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376694-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	16.3	16.7	2	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 16:10
 Lab ID #: 376694
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant
Company Name: Basin Environmental Consulting, LLC
Company Address: P.O. Box 381
City/State/Zip: Lovington, NM 88260
Project Name: Lea Station Landfarm
Project #: 2004-00061
Project Loc: Lea County, NM

Telephone No: (575)605-7210
Fax No: (505) 396-1429
PO #: PAA - J. Henry
Sampler Signature: Camille Bryant
e-mail: cibryant@basin-consulting.com
Report Format: Standard TRRP NPDES

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers							Matrix	Analyze For:				
								Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None			Other (Specify)	DW - Drinking Water SL - Sludge	CW - Groundwater S - Soil/Sol	NP - Non-Portable Specify OTH
01	VZ Cell A G-1			6/9/10	0800		1	X							SOIL	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006 Cations (Ca, Mg, Na, K) Anions (Cl, SO ₄ , Alkalinity) SAR / ESP / CEC	Metal: As Ag Ba Cd Cr Pb Hg Se Volatiles SemiVolatiles BTEX 8027/8750/90 or BTEX 8260	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	
02	VZ Cell A G-2			6/9/10	0820		1	X							SOIL					
03	VZ Cell A G-3			6/9/10	0840		1	X							SOIL					
04	VZ Cell A G-4			6/9/10	0900		1	X							SOIL					
05	VZ Cell A G-5			6/9/10	0920		1	X							SOIL					

ORDER #: 576094

Special Instructions:

Relinquished by: Camille Bryant Date: 6/10/10 Time: 1300
 Relinquished by: [Signature] Date: 6/10 Time: 1610
 Relinquished by: [Signature] Date: 6/10/10 Time: 16:10

Received by: [Signature] Date: 6-10 Time: 1300
 Received by: [Signature] Date: 6-10-10 Time: 16:10
 Received by ELOT: Cherise Luna

Laboratory Comments:
 Samples Contaminated?
 VOCs Free of Headspace?
 Labels on containers?
 Custody seals on container(s)?
 Chain of custody on container(s)?
 Sample Hand Delivered?
 by Sampler/Client Rep.?
 by Courier? UPS DHL
 FedEx Lone Star
 Temperature Upon Receipt: 1.4 °C



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376694
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376699

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376699**
Lea Station Landfarm
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 376699. 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. 376699 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376699



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell B G-1	S	Jun-09-10 09:40		376699-001
VZ Cell B G-2	S	Jun-09-10 10:00		376699-002
VZ Cell B G-3	S	Jun-09-10 10:15		376699-003
VZ Cell B G-4	S	Jun-09-10 10:30		376699-004
VZ Cell B G-5	S	Jun-09-10 10:45		376699-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376699

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810301 Percent Moisture

None

Batch: LBA-810414 BTEX by EPA 8021
SW8021BM

Batch 810414, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 376699-001,376699-005,376699-002.

SW8021BM

Batch 810414, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376699-005, -001, -002.

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

Batch: LBA-810595 TPH by SW8015 Mod
SW8015MOD_NM

Batch 810595, 1-Chlorooctane, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 376699-005.



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376699

Report Date: 16-JUN-10
Date Received: 06/10/2010

Batch: LBA-810601 BTEX by EPA 8021
SW8021BM

Batch 810601, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 376699-003.

SW8021BM

Batch 810601, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376699-004, -003.

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

Batch: LBA-810693 TPH by SW8015 Mod
None

Batch: LBA-810781 Inorganic Anions by EPA 300
None

Certificate of Analysis Summary 376699

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm
Report Date: 16-JUN-10
Project Manager: Brent Barron, II

<i>Analysis Requested</i>		376699-001	376699-002	376699-003	376699-004	376699-005
<i>Lab Id:</i>	<i>Field Id:</i>	VZ Cell B G-1	VZ Cell B G-2	VZ Cell B G-3	VZ Cell B G-4	VZ Cell B G-5
<i>Depth:</i>	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL
<i>Sampled:</i>	<i>Units/RL:</i>	Jun-09-10 09:40 Jun-11-10 10:30 Jun-11-10 18:33 mg/kg RL ND 0.0010 ND 0.0021 ND 0.0010 ND 0.0021 ND 0.0010 ND 0.0010 ND 0.0010	Jun-09-10 10:00 Jun-11-10 10:30 Jun-11-10 18:55 mg/kg RL ND 0.0010 ND 0.0021 ND 0.0010 ND 0.0021 ND 0.0010 ND 0.0010 ND 0.0010	Jun-09-10 10:15 Jun-14-10 08:00 Jun-14-10 17:32 mg/kg RL ND 0.0011 ND 0.0022 ND 0.0011 ND 0.0022 ND 0.0011 ND 0.0011 ND 0.0011	Jun-09-10 10:30 Jun-14-10 08:00 Jun-14-10 17:09 mg/kg RL ND 0.0010 ND 0.0020 ND 0.0010 ND 0.0020 ND 0.0010 ND 0.0010 ND 0.0010	Jun-09-10 10:45 Jun-11-10 10:30 Jun-12-10 15:45 mg/kg RL ND 0.0010 ND 0.0020 ND 0.0010 ND 0.0020 ND 0.0010 ND 0.0010 ND 0.0010
BTEX by EPA 8021						
Extracted:						
Analyzed:						
Units/RL:						
Benzene						
Toluene						
Ethylbenzene						
m,p-Xylenes						
o-Xylene						
Xylenes, Total						
Total BTEX						
Inorganic Anions In Soil by E300						
Extracted:						
Analyzed:		Jun-14-10 09:21				
Units/RL:		mg/kg RL 14.9 5.18	mg/kg RL 6.29 5.19	mg/kg RL 6.39 5.30	mg/kg RL 6.42 5.15	mg/kg RL 5.64 5.12
Chloride						
Percent Moisture						
Extracted:						
Analyzed:		Jun-11-10 14:28				
Units/RL:		% RL 3.39 1.00	% RL 3.69 1.00	% RL 5.65 1.00	% RL 2.92 1.00	% RL 2.32 1.00
Percent Moisture						
TPH by SW8015 Mod						
Extracted:		Jun-11-10 14:30	Jun-11-10 14:30	Jun-15-10 08:30	Jun-11-10 14:30	Jun-15-10 08:30
Analyzed:		Jun-12-10 12:25	Jun-12-10 12:53	Jun-15-10 15:57	Jun-14-10 11:02	Jun-15-10 13:13
Units/RL:		mg/kg RL ND 15.4	mg/kg RL ND 15.5	mg/kg RL ND 15.9	mg/kg RL ND 15.4	mg/kg RL ND 15.3
C6-C12 Gasoline Range Hydrocarbons						
C12-C28 Diesel Range Hydrocarbons						
C28-C35 Oil Range Hydrocarbons						
Total TPH						

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.

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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.

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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 565602-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 14:48				
BTEX 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	0.0288	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 15:10				
BTEX 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	0.0287	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 16:18				
BTEX 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	0.0302	0.0300	101	80-120	

Lab Batch #: 810414

Sample: 376699-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 18:33				
BTEX 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	0.0287	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 376699-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 18:55				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0296	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 376699-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 15:45

SURROGATE RECOVERY STUDY

BTEX 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	0.0291	0.0300	97	80-120	

Lab Batch #: 810414

Sample: 376694-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 20:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 810414

Sample: 376694-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 21:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	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	0.0296	0.0300	99	80-120	

Lab Batch #: 810601

Sample: 565716-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 08:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	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	0.0317	0.0300	106	80-120	

Lab Batch #: 810601

Sample: 565716-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 09:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810601

Sample: 565716-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 10:21				
BTEX 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	0.0295	0.0300	98	80-120	

Lab Batch #: 810601

Sample: 376694-002 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 15:40				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 810601

Sample: 376694-002 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 16:02				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 810601

Sample: 376699-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 17:09				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 810601

Sample: 376699-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 17:32				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0304	0.0300	101	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 565721-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 17:46	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		112	99.8	112	70-135	
o-Terphenyl		51.0	49.9	102	70-135	

Lab Batch #: 810595

Sample: 565721-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:13	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		127	100	127	70-135	
o-Terphenyl		48.2	50.0	96	70-135	

Lab Batch #: 810595

Sample: 565721-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:41	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		109	99.5	110	70-135	
o-Terphenyl		51.1	49.8	103	70-135	

Lab Batch #: 810595

Sample: 376699-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 12:25	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		76.0	99.5	76	70-135	
o-Terphenyl		37.8	49.8	76	70-135	

Lab Batch #: 810595

Sample: 376699-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 12:53	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		70.4	99.8	71	70-135	
o-Terphenyl		35.0	49.9	70	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 376699-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 11:02

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.4	99.8	88	70-135	
o-Terphenyl	42.3	49.9	85	70-135	

Lab Batch #: 810595

Sample: 376701-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:32

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.5	118	70-135	
o-Terphenyl	44.0	49.8	88	70-135	

Lab Batch #: 810595

Sample: 376701-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:59

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	41.6	49.8	84	70-135	

Lab Batch #: 810693

Sample: 565772-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/10 10:03

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	52.0	50.0	104	70-135	

Lab Batch #: 810693

Sample: 565772-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/15/10 10:30

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	54.2	50.0	108	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376699,

Project ID: 2004-00061

Lab Batch #: 810693

Sample: 377064-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 11:51

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.5	129	70-135	
o-Terphenyl	50.6	49.8	102	70-135	

Lab Batch #: 810693

Sample: 377064-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 12:18

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	99.9	130	70-135	
o-Terphenyl	51.9	50.0	104	70-135	

Lab Batch #: 810693

Sample: 376699-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 13:13

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	99.6	120	70-135	
o-Terphenyl	55.1	49.8	111	70-135	

Lab Batch #: 810693

Sample: 376699-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 15:57

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	57.7	50.0	115	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.

Blank Spike Recovery

Project Name: Lea Station Landfarm

Work Order #: 376699

Project ID:

2004-00061

Lab Batch #: 810693

Sample: 565772-1-BKS

Matrix: Solid

Date Analyzed: 06/15/2010

Date Prepared: 06/15/2010

Analyst: ASA

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH by SW8015 Mod	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Analytes						
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1170	117	70-135	
C12-C28 Diesel Range Hydrocarbons	ND	1000	818	82	70-135	

Blank Spike Recovery [D] – 100*[C]/[B]

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

BRL - Below Reporting Limit

Project Name: Lea Station Landfarm

Work Order #: 376699

Analyst: ASA

Lab Batch ID: 810414

Sample: 565602-1-BKS

Batch #: 1

Matrix: Solid

Project ID: 2004-00061

Date Analyzed: 06/11/2010

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0986	99	0.1	0.1002	100	2	70-130	35	
Toluene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	70-130	35	
Ethylbenzene	ND	0.1000	0.0988	99	0.1	0.1000	100	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.1984	99	0.2	0.2003	100	1	70-135	35	
o-Xylene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	71-133	35	

Analyst: ASA

Lab Batch ID: 810601

Sample: 565716-1-BKS

Batch #: 1

Matrix: Solid

Date Analyzed: 06/14/2010

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.1076	108	0.1	0.1053	105	2	70-130	35	
Toluene	ND	0.1000	0.1063	106	0.1	0.1033	103	3	70-130	35	
Ethylbenzene	ND	0.1000	0.1085	109	0.1	0.1046	105	4	71-129	35	
m,p-Xylenes	ND	0.2000	0.2185	109	0.2	0.2102	105	4	70-135	35	
o-Xylene	ND	0.1000	0.1075	108	0.1	0.1032	103	4	71-133	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: Lea Station Landfarm

Work Order #: 376699

Analyst: LATCOR

Lab Batch ID: 810781

Sample: 810781-1-BKS

Batch #: 1

Matrix: Solid

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	9.99	100	10	8.68	87	14	75-125	20	

Analyst: BEV **Date Prepared:** 06/11/2010

Date Analyzed: 06/11/2010

Lab Batch ID: 810595

Sample: 565721-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	998	1170	117	1000	1130	113	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	861	86	1000	1010	101	16	70-135	35	

Relative Percent Difference $RPD = 200 * [(C-F)/(C+F)]$

Blank Spike Recovery $[D] = 100 * (C)/[B]$

Blank Spike Duplicate Recovery $[G] = 100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376699

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	272	209	474	97	75-125	

Matrix Spike Percent Recovery [D] = $100 * (C - A) / B$
 Relative 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: Lea Station Landfarm

Work Order #: 376699

Project ID: 2004-00061

Lab Batch ID: 810414

Batch #: 1 Matrix: Soil

Date Analyzed: 06/12/2010

QC-Sample ID: 376694-001 S

Date Prepared: 06/11/2010 Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	BTEX by EPA 8021										
Benzene	ND	0.1197	0.0744	62	0.1200	0.0595	50	22	70-130	35	X
Toluene	ND	0.1197	0.0741	62	0.1200	0.0594	50	22	70-130	35	X
Ethylbenzene	ND	0.1197	0.0758	63	0.1200	0.0611	51	21	71-129	35	X
m,p-Xylenes	ND	0.2394	0.1515	63	0.2399	0.1239	52	20	70-135	35	X
o-Xylene	ND	0.1197	0.0750	63	0.1200	0.0610	51	21	71-133	35	X

Lab Batch ID: 810601

QC-Sample ID: 376694-002 S Batch #: 1 Matrix: Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010 Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	BTEX by EPA 8021										
Benzene	ND	0.1048	0.0678	65	0.1050	0.0720	69	6	70-130	35	X
Toluene	ND	0.1048	0.0670	64	0.1050	0.0713	68	6	70-130	35	X
Ethylbenzene	ND	0.1048	0.0683	65	0.1050	0.0725	69	6	71-129	35	X
m,p-Xylenes	ND	0.2096	0.1378	66	0.2100	0.1458	69	6	70-135	35	X
o-Xylene	ND	0.1048	0.0662	63	0.1050	0.0708	67	7	71-133	35	X

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 Applicable, N See Narrative, EQ Estimated Quantitation Limit



Form 3 - MS / MSD Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376699

Project ID: 2004-00061

Lab Batch ID: 810595

QC-Sample ID: 376701-003 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/11/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	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	ND	998	1040	104	104	998	953	95	9	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	1020	102	102	998	835	84	20	70-135	35	

Lab Batch ID: 810693

QC-Sample ID: 377064-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/15/2010

Date Prepared: 06/15/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	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	ND	1070	1230	115	115	1070	1290	121	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1070	849	79	79	1070	881	82	4	70-135	35	

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

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376699

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	272	255	6	20	

Lab Batch #: 810301

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376694-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	16.3	16.7	2	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376699
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376699
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376700

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376700**
Lea Station Landfarm
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 376700. 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. 376700 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376700



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell C G-1	S	Jun-09-10 11:00		376700-001
VZ Cell C G-2	S	Jun-09-10 11:15		376700-002
VZ Cell C G-3	S	Jun-09-10 11:30		376700-003
VZ Cell C G-4	S	Jun-09-10 11:45		376700-004
VZ Cell C G-5	S	Jun-09-10 12:00		376700-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376700

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810301 Percent Moisture

None

Batch: LBA-810414 BTEX by EPA 8021
SW8021BM

Batch 810414, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376700-004, -002, -003, -005, -001.

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

SW8021BM

Batch 810414, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376700-001,376700-005,376700-003,376700-002.

Batch: LBA-810595 TPH by SW8015 Mod

None

Batch: LBA-810781 Inorganic Anions by EPA 300

None

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.

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Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376700,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 565602-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 06/11/10 14:48	SURROGATE RECOVERY STUDY			
BTEX 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	0.0288	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 06/11/10 15:10	SURROGATE RECOVERY STUDY			
BTEX 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	0.0287	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 06/11/10 16:18	SURROGATE RECOVERY STUDY			
BTEX 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	0.0302	0.0300	101	80-120	

Lab Batch #: 810414

Sample: 376700-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/12/10 16:52	SURROGATE RECOVERY STUDY			
BTEX 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	0.0280	0.0300	93	80-120	

Lab Batch #: 810414

Sample: 376700-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 06/12/10 17:15	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0294	0.0300	98	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376700,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 376700-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 17:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 810414

Sample: 376700-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 18:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 810414

Sample: 376700-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 18:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

Lab Batch #: 810414

Sample: 376694-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 20:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 810414

Sample: 376694-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/12/10 21:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	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	0.0296	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376700,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 565721-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 17:46	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		112	99.8	112	70-135	
o-Terphenyl		51.0	49.9	102	70-135	

Lab Batch #: 810595

Sample: 565721-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:13	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		127	100	127	70-135	
o-Terphenyl		48.2	50.0	96	70-135	

Lab Batch #: 810595

Sample: 565721-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 18:41	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		109	99.5	110	70-135	
o-Terphenyl		51.1	49.8	103	70-135	

Lab Batch #: 810595

Sample: 376700-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/14/10 13:22	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		96.0	99.7	96	70-135	
o-Terphenyl		47.1	49.9	94	70-135	

Lab Batch #: 810595

Sample: 376700-003 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/14/10 13:49	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		103	100	103	70-135	
o-Terphenyl		50.3	50.1	100	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376700,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 376700-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 14:16

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	101	111	70-135	
o-Terphenyl	53.6	50.3	107	70-135	

Lab Batch #: 810595

Sample: 376700-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 14:43

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.7	101	98	70-135	
o-Terphenyl	47.9	50.3	95	70-135	

Lab Batch #: 810595

Sample: 376701-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:32

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.5	118	70-135	
o-Terphenyl	44.0	49.8	88	70-135	

Lab Batch #: 810595

Sample: 376701-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 16:59

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	41.6	49.8	84	70-135	

Lab Batch #: 810595

Sample: 376700-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 18:21

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	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: Lea Station Landfarm

Work Order #: 376700

Analyst: ASA

Lab Batch ID: 810414

Sample: 565602-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/11/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0986	99	0.1	0.1002	100	2	70-130	35	
Toluene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	70-130	35	
Ethylbenzene	ND	0.1000	0.0988	99	0.1	0.1000	100	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.1984	99	0.2	0.2003	100	1	70-135	35	
o-Xylene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	71-133	35	

Analyst: LATCOR

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Lab Batch ID: 810781

Sample: 810781-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Inorganic Anions In Soil by E300											
Chloride	ND	10.0	9.99	100	10	8.68	87	14	75-125	20	

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: Lea Station Landfarm

Work Order #: 376700

Analyst: BEV

Lab Batch ID: 810595

Sample: 565721-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/11/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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	998	1170	117	1000	1130	113	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	861	86	1000	1010	101	16	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376700

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	272	209	474	97	75-125	

Matrix Spike Percent Recovery [D] = $100 * (C - A) / B$
 Relative 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: Lea Station Landfarm

Work Order # : 376700

Project ID: 2004-00061

Lab Batch ID: 810414

Batch #: 1 **Matrix:** Soil

Date Analyzed: 06/12/2010

QC-Sample ID: 376694-001 S

Date Prepared: 06/11/2010 **Analyst:** ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample %R Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	ND	0.1197	0.0741	62	0.1200	0.0594	50	22	70-130	35	X
Ethylbenzene	ND	0.1197	0.0758	63	0.1200	0.0611	51	21	71-129	35	X
m,p-Xylenes	ND	0.2394	0.1515	63	0.2399	0.1239	52	20	70-135	35	X
o-Xylene	ND	0.1197	0.0750	63	0.1200	0.0610	51	21	71-133	35	X

Lab Batch ID: 810595

QC-Sample ID: 376701-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/11/2010 **Analyst:** BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample %R Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	998	1020	102	998	835	84	20	70-135	35	

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376700

Lab Batch #: 810781

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376313-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	272	255	6	20	

Lab Batch #: 810301

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376694-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	16.3	16.7	2	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376700
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376700
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376701

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376701**
Lea Station Landfarm
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 376701. 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. 376701 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.

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Sample Cross Reference 376701



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell D G-1	S	Jun-09-10 12:20		376701-001
VZ Cell D G-2	S	Jun-09-10 12:40		376701-002
VZ Cell D G-3	S	Jun-09-10 13:00		376701-003
VZ Cell D G-4	S	Jun-09-10 13:20		376701-004
VZ Cell D G-5	S	Jun-09-10 13:40		376701-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376701

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810301 Percent Moisture

None

*Batch: LBA-810414 BTEX by EPA 8021
SW8021BM*

*Batch 810414, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 376701-001,376701-005,376701-003,376701-002.*

SW8021BM

Batch 810414, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376701-001, -005, -003, -002, -004.

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

Batch: LBA-810595 TPH by SW8015 Mod

None

Batch: LBA-810644 TPH by SW8015 Mod

None

Batch: LBA-810781 Inorganic Anions by EPA 300

None

Batch: LBA-810796 Inorganic Anions by EPA 300

None



Certificate of Analysis Summary 376701

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm

Report Date: 16-JUN-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		Lab Id:	376701-001	376701-002	376701-003	376701-004	376701-005
		Field Id:	VZ Cell D G-1	VZ Cell D G-2	VZ Cell D G-3	VZ Cell D G-4	VZ Cell D G-5
		Depth:					
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	Jun-09-10 12:20	Jun-09-10 12:40	Jun-09-10 13:00	Jun-09-10 13:20	Jun-09-10 13:40
BTEX by EPA 8021		Extracted:	Jun-11-10 10:30				
		Analyzed:	Jun-12-10 18:45	Jun-12-10 19:08	Jun-12-10 19:30	Jun-12-10 19:53	Jun-12-10 20:15
		Units/RL:	mg/kg RL				
Benzene			ND 0.0010				
Toluene			ND 0.0021	ND 0.0020	ND 0.0020	ND 0.0021	ND 0.0021
Ethylbenzene			ND 0.0010				
m,p-Xylenes			ND 0.0021	ND 0.0020	ND 0.0020	ND 0.0021	ND 0.0021
o-Xylene			ND 0.0010				
Xylenes, Total			ND 0.0010				
Total BTEX			ND 0.0010				
Inorganic Anions In Soil by E300		Extracted:					
		Analyzed:	Jun-14-10 09:21	Jun-14-10 09:21	Jun-14-10 09:21	Jun-14-10 19:11	Jun-14-10 19:11
		Units/RL:	mg/kg RL				
Chloride			ND 5.21	13.1 5.09	ND 5.01	5.94 5.21	22.7 5.10
Percent Moisture		Extracted:					
		Analyzed:	Jun-11-10 14:28				
		Units/RL:	% RL				
Percent Moisture			4.10 1.00	1.80 1.00	ND 1.00	4.08 1.00	1.92 1.00
TPH by SW8015 Mod		Extracted:	Jun-11-10 14:30				
		Analyzed:	Jun-14-10 15:10	Jun-14-10 15:38	Jun-14-10 16:05	Jun-14-10 22:49	Jun-14-10 23:16
		Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons			ND 15.7	ND 15.3	ND 15.0	ND 15.6	ND 15.2
C12-C28 Diesel Range Hydrocarbons			ND 15.7	ND 15.3	ND 15.0	ND 15.6	ND 15.2
C28-C35 Oil Range Hydrocarbons			ND 15.7	ND 15.3	ND 15.0	ND 15.6	ND 15.2
Total TPH			ND 15.7	ND 15.3	ND 15.0	ND 15.6	ND 15.2

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.

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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.

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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



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376701,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 565602-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 14:48	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0293	0.0300	98	80-120	
4-Bromofluorobenzene		0.0288	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 15:10	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0293	0.0300	98	80-120	
4-Bromofluorobenzene		0.0287	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 565602-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/11/10 16:18	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0241	0.0300	80	80-120	
4-Bromofluorobenzene		0.0302	0.0300	101	80-120	

Lab Batch #: 810414

Sample: 376701-001 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 18:45	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene		0.0296	0.0300	99	80-120	

Lab Batch #: 810414

Sample: 376701-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 19:08	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene		0.0301	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

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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376701,

Project ID: 2004-00061

Lab Batch #: 810414

Sample: 376701-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 19:30				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 810414

Sample: 376701-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 19:53				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 810414

Sample: 376701-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 20:15				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 810414

Sample: 376694-001 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 20:38				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 810414

Sample: 376694-001 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 21:00				
BTEX by EPA 8021 Analytes	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	0.0296	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376701,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 565721-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 17:46				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.8	112	70-135	
o-Terphenyl	51.0	49.9	102	70-135	

Lab Batch #: 810595

Sample: 565721-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 18:13				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	48.2	50.0	96	70-135	

Lab Batch #: 810595

Sample: 565721-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/11/10 18:41				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.5	110	70-135	
o-Terphenyl	51.1	49.8	103	70-135	

Lab Batch #: 810595

Sample: 376701-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 15:10				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	50.3	50.2	100	70-135	

Lab Batch #: 810595

Sample: 376701-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 15:38				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	48.2	50.1	96	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376701,

Project ID: 2004-00061

Lab Batch #: 810595

Sample: 376701-003 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/14/10 16:05	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		96.0	99.5	96	70-135	
o-Terphenyl		45.3	49.8	91	70-135	

Lab Batch #: 810595

Sample: 376701-003 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/14/10 16:32	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		117	99.5	118	70-135	
o-Terphenyl		44.0	49.8	88	70-135	

Lab Batch #: 810595

Sample: 376701-003 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/14/10 16:59	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		108	99.5	109	70-135	
o-Terphenyl		41.6	49.8	84	70-135	

Lab Batch #: 810644

Sample: 565718-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/14/10 21:29	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		132	99.8	132	70-135	
o-Terphenyl		51.0	49.9	102	70-135	

Lab Batch #: 810644

Sample: 565718-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/14/10 21:56	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH by SW8015 Mod						
Analytes						
1-Chlorooctane		128	99.7	128	70-135	
o-Terphenyl		49.2	49.9	99	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376701,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 565718-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 22:23

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	51.9	49.8	104	70-135	

Lab Batch #: 810644

Sample: 376701-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 22:49

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.7	99.8	100	70-135	
o-Terphenyl	47.4	49.9	95	70-135	

Lab Batch #: 810644

Sample: 376701-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 23:16

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	99.6	98	70-135	
o-Terphenyl	46.1	49.8	93	70-135	

Lab Batch #: 810644

Sample: 376705-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:12

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	49.3	50.2	98	70-135	

Lab Batch #: 810644

Sample: 376705-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
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.

Project Name: Lea Station Landfarm

Work Order #: 376701

Analyst: ASA

Lab Batch ID: 810414

Sample: 565602-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/11/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0986	99	0.1	0.1002	100	2	70-130	35	
Toluene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	70-130	35	
Ethylbenzene	ND	0.1000	0.0988	99	0.1	0.1000	100	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.1984	99	0.2	0.2003	100	1	70-135	35	
o-Xylene	ND	0.1000	0.0974	97	0.1	0.0987	99	1	71-133	35	

Analyst: LATCOR

Lab Batch ID: 810781

Sample: 810781-1-BKS

Batch #: 1

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Inorganic Anions In Soil by E300											
Chloride	ND	10.0	9.99	100	10	8.68	87	14	75-125	20	

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: Lea Station Landfarm

Work Order #: 376701

Analyst: LATCOR

Lab Batch ID: 810796

Sample: 810796-1-BKS

Batch #: 1

Matrix: Solid

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Chloride	ND	10.0	8.62	86	10	9.52	95	10	75-125	20	

Analyst: BEV **Date Prepared:** 06/11/2010

Date Analyzed: 06/14/2010

Lab Batch ID: 810644

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	998	1150	115	997	1160	116	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	893	89	997	878	88	2	70-135	35	

Analyst: BEV **Date Prepared:** 06/11/2010

Date Analyzed: 06/11/2010

Lab Batch ID: 810595

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	998	1170	117	1000	1130	113	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	861	86	1000	1010	101	16	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376701

Lab Batch #: 810781

Date Analyzed: 06/14/2010

QC- Sample ID: 376313-001 S

Reporting Units: mg/kg

Project ID: 2004-00061

Analyst: LATCOR

Date Prepared: 06/14/2010

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	272	209	474	97	75-125	

Lab Batch #: 810796

Date Analyzed: 06/14/2010

QC- Sample ID: 376701-004 S

Reporting Units: mg/kg

Date Prepared: 06/14/2010

Analyst: LATCOR

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	5.94	104	113	103	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative 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: Lea Station Landfarm

Work Order #: 376701

Project ID: 2004-00061

Lab Batch ID: 810414

QC-Sample ID: 376694-001 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 06/12/2010

Date Prepared: 06/11/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1197	0.0744	62	0.1200	0.0595	50	22	70-130	35	X
Toluene	ND	0.1197	0.0741	62	0.1200	0.0594	50	22	70-130	35	X
Ethylbenzene	ND	0.1197	0.0758	63	0.1200	0.0611	51	21	71-129	35	X
m,p-Xylenes	ND	0.2394	0.1515	63	0.2399	0.1239	52	20	70-135	35	X
o-Xylene	ND	0.1197	0.0750	63	0.1200	0.0610	51	21	71-133	35	X

Lab Batch ID: 810595

QC-Sample ID: 376701-003 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 06/14/2010

Date Prepared: 06/11/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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
TPH by SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	998	1040	104	998	953	95	9	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	1020	102	998	835	84	20	70-135	35	

Lab Batch ID: 810644

QC-Sample ID: 376705-003 S

Batch #: 1 **Matrix:** Soil

Date Analyzed: 06/15/2010

Date Prepared: 06/11/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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
TPH by SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1060	1140	108	1060	1140	108	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	889	84	1060	894	84	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 Applicable, N See Narrative, EQ Estimated Quantitation Limit

Project Name: Lea Station Landfarm

Work Order #: 376701

Lab Batch #: 810781
Date Analyzed: 06/14/2010
QC- Sample ID: 376313-001 D
Reporting Units: mg/kg

Date Prepared: 06/14/2010
Batch #: 1

Project ID: 2004-00061
Analyst: LATCOR
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	272	255	6	20	

Lab Batch #: 810796
Date Analyzed: 06/14/2010
QC- Sample ID: 376701-004 D
Reporting Units: mg/kg

Date Prepared: 06/14/2010
Batch #: 1

Analyst: LATCOR
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	5.94	ND	NC	20	

Lab Batch #: 810301
Date Analyzed: 06/11/2010
QC- Sample ID: 376694-001 D
Reporting Units: %

Date Prepared: 06/11/2010
Batch #: 1

Analyst: JLG
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	16.3	16.7	2	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376701
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Camille Bryant Project Name: Lea Station Landfarm
 Company Name: Basin Environmental Consulting, LLC Project #: 2004-00061
 Company Address: P.O. Box 381 Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260 PO #: PAA - J. Henry
 Telephone No: (575)605-7210 Fax No: (505) 396-1429 Report Format: Standard TRRP NPDES
 Sampler Signature: Camille Bryant e-mail: cibryant@basin-consulting.com

LAB # (lab use only)	ORDER #:	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filled	Total # of Containers	Preservation & # of Containers					Matrix	Analyze For:	
									DW - Drinking Water SL - Sludge	CW - Groundwater S - Soil/Sol	NP - Non-Portable Specby Oth	HNO ₃	HCl			H ₂ SO ₄
	376701	VZ Cell D G-1			6/9/10	1220		1							SOIL	TPH: 418.1 8015M 8015B TPH: TX 1005 TX 1006 Cations (Ca, Mg, Na, K) Anions (Cl, SO ₄ , Alkalinity) SAR / ESP / CEC Metals: As Ag Ba Cd Cr Pb Hg Se Volatiles Semivolatiles BTEX 8021B/5030 or BTEX 8260 N.O.R.M. RUSH TAT (Pre-Schedule) 24, 48, 72 hrs Standard TAT 4 DAY
		VZ Cell D G-2			6/9/10	1240		1							SOIL	
		VZ Cell D G-3			6/9/10	1300		1							SOIL	
		VZ Cell D G-4			6/9/10	1320		1							SOIL	
		VZ Cell D G-5			6/9/10	1340		1							SOIL	

Special Instructions:

Relinquished by: Camille Bryant Date: 6/10/10 Time: 1300
 Relinquished by: [Signature] Date: 6/10 Time: 1610
 Relinquished by: [Signature] Date: 6-10-10 Time: 16:15

Received by: [Signature] Date: 6-10 Time: 1300
 Received by: [Signature] Date: 6-10-10 Time: 16:15

Received by: Andrea Sam Date: 6-10-10 Time: 16:15

Laboratory Comments:
 VOCs Free of Headspace? N
 Custody seals on containers? N
 Sample Hand Delivered by Sampler/Client Rep.? N
 by Courier? N UPS N DHL N FedEx N Lone Star N
 Temperature Upon Receipt: 1.4 °C



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376701
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376702

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376702**
Lea Station Landfarm
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 376702. 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. 376702 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 376702



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell E G-1	S	Jun-09-10 14:00		376702-001
VZ Cell E G-2	S	Jun-09-10 14:20		376702-002
VZ Cell E G-3	S	Jun-09-10 14:40		376702-003
VZ Cell E G-4	S	Jun-09-10 15:00		376702-004



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376702

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810308 Percent Moisture
None

Batch: LBA-810421 BTEX by EPA 8021
SW8021BM

Batch 810421, m,p-Xylenes RPD was outside QC limits.
Samples affected are: 376702-003, -001, -002, -004

SW8021BM

Batch 810421, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis
Samples affected are: 376702-003.

SW8021BM

Batch 810421, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 376702-003, -001, -002, -004.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Batch: LBA-810644 TPH by SW8015 Mod
None

Batch: LBA-810796 Inorganic Anions by EPA 300
None

Certificate of Analysis Summary 376702

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Lea Station Landfarm

Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm

Report Date: 16-JUN-10

Project Manager: Brent Barron, II



<i>Analysis Requested</i>		Lab Id:	376702-001	376702-002	376702-003	376702-004
		Field Id:	VZ Cell E G-1	VZ Cell E G-2	VZ Cell E G-3	VZ Cell E G-4
		Depth:				
		Matrix:	SOIL	SOIL	SOIL	SOIL
		Sampled:	Jun-09-10 14:00	Jun-09-10 14:20	Jun-09-10 14:40	Jun-09-10 15:00
BTEX by EPA 8021		Extracted:	Jun-11-10 10:45	Jun-11-10 10:45	Jun-11-10 10:45	Jun-11-10 10:45
		Analyzed:	Jun-12-10 23:37	Jun-13-10 01:06	Jun-13-10 01:28	Jun-13-10 01:51
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene			ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010
Toluene			ND 0.0022	ND 0.0021	ND 0.0022	ND 0.0020
Ethylbenzene			ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010
m,p-Xylenes			ND 0.0022	ND 0.0021	ND 0.0022	ND 0.0020
o-Xylene			ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010
Xylenes, Total			ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010
Total BTEX			ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0010
Inorganic Anions In Soil by E300						
		Extracted:				
		Analyzed:	Jun-14-10 19:11	Jun-14-10 19:11	Jun-14-10 19:11	Jun-14-10 19:11
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride			ND 5.50	ND 5.26	6.87 5.50	5.38 5.08
Percent Moisture						
		Extracted:				
		Analyzed:	Jun-11-10 14:28	Jun-11-10 14:28	Jun-11-10 14:28	Jun-11-10 14:28
		Units/RL:	% RL	% RL	% RL	% RL
Percent Moisture			9.12 1.00	4.92 1.00	9.06 1.00	1.64 1.00
TPH by SW8015 Mod						
		Extracted:	Jun-11-10 14:30	Jun-11-10 14:30	Jun-11-10 14:30	Jun-11-10 14:30
		Analyzed:	Jun-14-10 23:43	Jun-15-10 00:09	Jun-15-10 00:36	Jun-15-10 01:02
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons			ND 16.6	ND 15.7	ND 16.5	ND 15.3
C12-C28 Diesel Range Hydrocarbons			ND 16.6	ND 15.7	ND 16.5	ND 15.3
C28-C35 Oil Range Hydrocarbons			ND 16.6	ND 15.7	ND 16.5	ND 15.3
Total TPH			ND 16.6	ND 15.7	ND 16.5	ND 15.3

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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.

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Certified and approved by numerous States and Agencies.
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Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376702,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 565604-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 21:45				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 810421

Sample: 565604-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 22:07				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 565604-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 23:15				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 810421

Sample: 376702-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 23:37				
BTEX 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	0.0307	0.0300	102	80-120	

Lab Batch #: 810421

Sample: 376702-001 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/13/10 00:30				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376702,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 376702-001 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/13/10 00:22	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0289	0.0300	96	80-120
4-Bromofluorobenzene		0.0306	0.0300	102	80-120

Lab Batch #: 810421

Sample: 376702-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/13/10 01:06	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0239	0.0300	80	80-120
4-Bromofluorobenzene		0.0303	0.0300	101	80-120

Lab Batch #: 810421

Sample: 376702-003 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/13/10 01:28	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0236	0.0300	79	80-120
4-Bromofluorobenzene		0.0291	0.0300	97	80-120

Lab Batch #: 810421

Sample: 376702-004 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/13/10 01:51	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0243	0.0300	81	80-120
4-Bromofluorobenzene		0.0306	0.0300	102	80-120

Lab Batch #: 810644

Sample: 565718-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/14/10 21:29	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
TPH by SW8015 Mod					
Analytes					
1-Chlorooctane		132	99.8	132	70-135
o-Terphenyl		51.0	49.9	102	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376702,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 565718-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 21:56

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.7	128	70-135	
o-Terphenyl	49.2	49.9	99	70-135	

Lab Batch #: 810644

Sample: 565718-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 22:23

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	51.9	49.8	104	70-135	

Lab Batch #: 810644

Sample: 376702-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/14/10 23:43

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.9	100	100	70-135	
o-Terphenyl	48.0	50.2	96	70-135	

Lab Batch #: 810644

Sample: 376702-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 00:09

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.0	99.5	99	70-135	
o-Terphenyl	47.5	49.8	95	70-135	

Lab Batch #: 810644

Sample: 376702-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 00:36

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	54.3	50.0	109	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376702,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 376702-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 01:02

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	47.4	50.1	95	70-135	

Lab Batch #: 810644

Sample: 376705-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:12

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	49.3	50.2	98	70-135	

Lab Batch #: 810644

Sample: 376705-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
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.

Project Name: Lea Station Landfarm

Work Order #: 376702

Analyst: ASA

Lab Batch ID: 810421

Sample: 565604-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/12/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0946	95	0.1	0.0998	100	5	70-130	35	
Toluene	ND	0.1000	0.0915	92	0.1	0.0960	96	5	70-130	35	
Ethylbenzene	ND	0.1000	0.0908	91	0.1	0.0957	96	5	71-129	35	
m,p-Xylenes	ND	0.2000	0.1791	90	0.2	0.1895	95	6	70-135	35	
o-Xylene	ND	0.1000	0.0905	91	0.1	0.0958	96	6	71-133	35	

Analyst: LATCOR

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Lab Batch ID: 810796

Sample: 810796-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Inorganic Anions In Soil by E300											
Chloride	ND	10.0	8.62	86	10	9.52	95	10	75-125	20	

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



BS / BSD Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376702

Analyst: BEV

Lab Batch ID: 810644

Sample: 565718-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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	998	1150	115	997	1160	116	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	893	89	997	878	88	2	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376702

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	5.94	104	113	103	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative 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: Lea Station Landfarm

Work Order # : 376702

Project ID: 2004-00061

Lab Batch ID: 810421

Batch #: 1 **Matrix:** Soil

Date Analyzed: 06/13/2010

QC-Sample ID: 376702-001 S

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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
	ND	0.1089	0.0596	55	0.1096	0.0549	50	8	70-130	35	X
	ND	0.1089	0.0666	61	0.1096	0.0618	56	7	71-129	35	X
m,p-Xylenes	ND	0.2179	0.0639	29	0.2192	0.0394	18	47	70-135	35	XF
o-Xylene	ND	0.1089	0.0642	59	0.1096	0.0598	55	7	71-133	35	X

Lab Batch ID: 810644

QC-Sample ID: 376705-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/15/2010

Date Prepared: 06/11/2010 **Analyst:** BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
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	ND	1060	889	84	1060	894	84	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	889	84	1060	894	84	1	70-135	35	

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376702

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	5.94	ND	NC	20	

Lab Batch #: 810308

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376702-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.12	8.67	5	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 374702
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 374702
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376703

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376703**
Lea Station Landfarm
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 376703. 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. 376703 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376703



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell F G-1	S	Jun-10-10 08:00		376703-001
VZ Cell F G-2	S	Jun-10-10 08:20		376703-002
VZ Cell F G-3	S	Jun-10-10 08:40		376703-003
VZ Cell F G-4	S	Jun-10-10 09:00		376703-004
VZ Cell F G-5	S	Jun-10-10 09:20		376703-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376703

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810308 Percent Moisture

None

Batch: LBA-810421 BTEX by EPA 8021
SW8021BM

Batch 810421, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376703-005, -001, -003, -004.

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

SW8021BM

Batch 810421, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376703-001,376703-005,376703-003.

SW8021BM

Batch 810421, m,p-Xylenes RPD was outside QC limits.

Samples affected are: 376703-005, -001, -003, -004

Batch: LBA-810601 BTEX by EPA 8021
SW8021BM

Batch 810601, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376703-002.

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



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376703

Report Date: 16-JUN-10
Date Received: 06/10/2010

Batch: LBA-810644 TPH by SW8015 Mod
None

Batch: LBA-810796 Inorganic Anions by EPA 300
None

Certificate of Analysis Summary 376703

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm
Report Date: 16-JUN-10
Project Manager: Brent Barron, II

	Lab Id:	376703-001	376703-002	376703-003	376703-004	376703-005
Analysis Requested	Field Id:	VZ Cell F G-1	VZ Cell F G-2	VZ Cell F G-3	VZ Cell F G-4	VZ Cell F G-5
	Depth:					
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
BTEX by EPA 8021	Sampled:	Jun-10-10 08:00	Jun-10-10 08:20	Jun-10-10 08:40	Jun-10-10 09:00	Jun-10-10 09:20
	Extracted:	Jun-11-10 10:45	Jun-14-10 08:00	Jun-11-10 10:45	Jun-11-10 10:45	Jun-11-10 10:45
	Analyzed:	Jun-13-10 02:14	Jun-14-10 16:47	Jun-13-10 02:58	Jun-13-10 03:21	Jun-13-10 03:43
	Units/RL:	mg/kg RL				
Benzene		ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0011
Toluene		ND 0.0020	ND 0.0023	ND 0.0021	ND 0.0020	ND 0.0021
Ethylbenzene		ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0011
m,p-Xylenes		ND 0.0020	ND 0.0023	ND 0.0021	ND 0.0020	ND 0.0021
o-Xylene		ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0011
Xylenes, Total		ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0011
Total BTEX		ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0010	ND 0.0011
Inorganic Anions In Soil by E300	Extracted:					
	Analyzed:	Jun-14-10 19:11				
	Units/RL:	mg/kg RL				
Chloride		ND 5.01	ND 5.69	ND 5.22	7.90 5.08	18.2 5.33
Percent Moisture	Extracted:					
	Analyzed:	Jun-11-10 14:28				
	Units/RL:	% RL				
Percent Moisture		ND 1.00	12.1 1.00	4.27 1.00	1.67 1.00	6.14 1.00
TPH by SW8015 Mod	Extracted:	Jun-11-10 14:30				
	Analyzed:	Jun-15-10 01:29	Jun-15-10 01:56	Jun-15-10 02:23	Jun-15-10 02:50	Jun-15-10 03:43
	Units/RL:	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 14.9	ND 17.0	ND 15.7	ND 15.3	ND 15.9
C12-C28 Diesel Range Hydrocarbons		ND 14.9	ND 17.0	ND 15.7	ND 15.3	ND 15.9
C28-C35 Oil Range Hydrocarbons		ND 14.9	ND 17.0	ND 15.7	ND 15.3	ND 15.9
Total TPH		ND 14.9	ND 17.0	ND 15.7	ND 15.3	ND 15.9

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

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.

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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



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376703,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 565604-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 21:45	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0289	0.0300	96	80-120	
4-Bromofluorobenzene		0.0290	0.0300	97	80-120	

Lab Batch #: 810421

Sample: 565604-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 22:07	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0298	0.0300	99	80-120	
4-Bromofluorobenzene		0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 565604-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 23:15	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0240	0.0300	80	80-120	
4-Bromofluorobenzene		0.0289	0.0300	96	80-120	

Lab Batch #: 810421

Sample: 376702-001 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/13/10 00:00	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0287	0.0300	96	80-120	
4-Bromofluorobenzene		0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 376702-001 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/13/10 00:22	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0289	0.0300	96	80-120	
4-Bromofluorobenzene		0.0306	0.0300	102	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376703,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 376703-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 02:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 376703-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 02:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	80-120	*
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 810421

Sample: 376703-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 03:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 810421

Sample: 376703-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 03:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	80-120	*
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 810601

Sample: 565716-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 08:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	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	0.0317	0.0300	106	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376703,

Project ID: 2004-00061

Lab Batch #: 810601

Sample: 565716-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/14/10 09:13	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0316	0.0300	105	80-120
4-Bromofluorobenzene		0.0311	0.0300	104	80-120

Lab Batch #: 810601

Sample: 565716-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/14/10 10:21	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0242	0.0300	81	80-120
4-Bromofluorobenzene		0.0295	0.0300	98	80-120

Lab Batch #: 810601

Sample: 376694-002 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/14/10 15:40	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0285	0.0300	95	80-120
4-Bromofluorobenzene		0.0302	0.0300	101	80-120

Lab Batch #: 810601

Sample: 376694-002 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/14/10 16:02	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0285	0.0300	95	80-120
4-Bromofluorobenzene		0.0304	0.0300	101	80-120

Lab Batch #: 810601

Sample: 376703-002 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
Units: mg/kg	Date Analyzed: 06/14/10 16:47	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R
BTEX by EPA 8021					
Analytes					
1,4-Difluorobenzene		0.0240	0.0300	80	80-120
4-Bromofluorobenzene		0.0294	0.0300	98	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376703,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 565718-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/14/10 21:29		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		132	99.8	132	70-135	
o-Terphenyl		51.0	49.9	102	70-135	

Lab Batch #: 810644

Sample: 565718-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/14/10 21:56		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		128	99.7	128	70-135	
o-Terphenyl		49.2	49.9	99	70-135	

Lab Batch #: 810644

Sample: 565718-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg		Date Analyzed: 06/14/10 22:23		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		108	99.5	109	70-135	
o-Terphenyl		51.9	49.8	104	70-135	

Lab Batch #: 810644

Sample: 376703-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/15/10 01:29		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		103	99.5	104	70-135	
o-Terphenyl		47.5	49.8	95	70-135	

Lab Batch #: 810644

Sample: 376703-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg		Date Analyzed: 06/15/10 01:56		SURROGATE RECOVERY STUDY		
TPH by SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1-Chlorooctane		97.8	99.5	98	70-135	
o-Terphenyl		48.0	49.8	96	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376703,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 376703-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 02:23

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.0	99.9	95	70-135	
o-Terphenyl	46.8	50.0	94	70-135	

Lab Batch #: 810644

Sample: 376703-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 02:50

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.5	101	96	70-135	
o-Terphenyl	46.7	50.3	93	70-135	

Lab Batch #: 810644

Sample: 376703-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 03:43

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.6	99.5	97	70-135	
o-Terphenyl	47.5	49.8	95	70-135	

Lab Batch #: 810644

Sample: 376705-003 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:12

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	49.3	50.2	98	70-135	

Lab Batch #: 810644

Sample: 376705-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
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.

Project Name: Lea Station Landfarm

Work Order #: 376703

Analyst: ASA

Lab Batch ID: 810421

Sample: 565604-1-BKS

Batch #: 1

Date Prepared: 06/11/2010

Project ID: 2004-00061

Date Analyzed: 06/12/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0946	95	0.1	0.0998	100	5	70-130	35	
Toluene	ND	0.1000	0.0915	92	0.1	0.0960	96	5	70-130	35	
Ethylbenzene	ND	0.1000	0.0908	91	0.1	0.0957	96	5	71-129	35	
m,p-Xylenes	ND	0.2000	0.1791	90	0.2	0.1895	95	6	70-135	35	
o-Xylene	ND	0.1000	0.0905	91	0.1	0.0958	96	6	71-133	35	

Analyst: ASA

Lab Batch ID: 810601

Sample: 565716-1-BKS

Batch #: 1

Date Prepared: 06/14/2010

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.1076	108	0.1	0.1053	105	2	70-130	35	
Toluene	ND	0.1000	0.1063	106	0.1	0.1033	103	3	70-130	35	
Ethylbenzene	ND	0.1000	0.1085	109	0.1	0.1046	105	4	71-129	35	
m,p-Xylenes	ND	0.2000	0.2185	109	0.2	0.2102	105	4	70-135	35	
o-Xylene	ND	0.1000	0.1075	108	0.1	0.1032	103	4	71-133	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: Lea Station Landfarm

Work Order #: 376703

Analyst: LATCOR

Lab Batch ID: 810796

Sample: 810796-1-BKS

Batch #: 1

Matrix: Solid

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Inorganic Anions In Soil by E300	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
Analytes	ND	10.0	8.62	86	10	9.52	95	10	75-125	20	
Chloride											

Analyst: BEV

Date Prepared: 06/11/2010

Date Analyzed: 06/14/2010

Lab Batch ID: 810644

Sample: 565718-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK/BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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
Analytes	ND	998	1150	115	997	1160	116	1	70-135	35	
C6-C12 Gasoline Range Hydrocarbons											
C12-C28 Diesel Range Hydrocarbons	ND	998	893	89	997	878	88	2	70-135	35	

Relative Percent Difference $RPD = 200 * [(C-F)/(C+F)]$

Blank Spike Recovery $[D] = 100 * (C)/[B]$

Blank Spike Duplicate Recovery $[G] = 100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376703

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	5.94	104	113	103	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative 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: Lea Station Landfarm

Work Order #: 376703

Project ID: 2004-00061

Lab Batch ID: 810421

Batch #: 1 Matrix: Soil

Date Analyzed: 06/13/2010

QC-Sample ID: 376702-001 S

Date Prepared: 06/11/2010

Reporting Units: mg/kg

Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021											
Benzene	ND	0.1089	0.0679	62	0.1096	0.0662	60	3	70-130	35	X
Toluene	ND	0.1089	0.0596	55	0.1096	0.0549	50	8	70-130	35	X
Ethylbenzene	ND	0.1089	0.0666	61	0.1096	0.0618	56	7	71-129	35	X
m,p-Xylenes	ND	0.2179	0.0639	29	0.2192	0.0394	18	47	70-135	35	XF
o-Xylene	ND	0.1089	0.0642	59	0.1096	0.0598	55	7	71-133	35	X

Lab Batch ID: 810601

Matrix: Soil

Date Analyzed: 06/14/2010

QC-Sample ID: 376694-002 S

Date Prepared: 06/14/2010

Reporting Units: mg/kg

Batch #: 1

Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021											
Benzene	ND	0.1048	0.0678	65	0.1050	0.0720	69	6	70-130	35	X
Toluene	ND	0.1048	0.0670	64	0.1050	0.0713	68	6	70-130	35	X
Ethylbenzene	ND	0.1048	0.0683	65	0.1050	0.0725	69	6	71-129	35	X
m,p-Xylenes	ND	0.2096	0.1378	66	0.2100	0.1458	69	6	70-135	35	X
o-Xylene	ND	0.1048	0.0662	63	0.1050	0.0708	67	7	71-133	35	X

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 Applicable, N See Narrative, EQ Estimated Quantitation Limit



Form 3 - MS / MSD Recoveries

Project Name: Lea Station Landfarm



Work Order #: 376703

Project ID: 2004-00061

Lab Batch ID: 810644

QC-Sample ID: 376705-003 S

Batch #: 1 Matrix: Soil

Date Analyzed: 06/15/2010

Date Prepared: 06/11/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY 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	ND	1060	1140	108	1060	1140	108	0	70-135	35
C12-C28 Diesel Range Hydrocarbons	ND	1060	889	84	1060	894	84	1	70-135	35	

Matrix Spike Percent Recovery [D] $100 \times (C-A) / B$
 Relative Percent Difference RPD $200 \times (C-F) / (C+F)$
 ND Not Detected, J Present Below Reporting Limit, B Present in Blank, NR Not Requested, I Interference, NA Not
 Applicable, N See Narrative, EQ Estimated Quantitation Limit
 Matrix Spike Duplicate Percent Recovery [G] $100 \times (F-A) / E$

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376703

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	5.94	ND	NC	20	

Lab Batch #: 810308

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376702-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.12	8.67	5	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376703
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST
 12600 West I-20 East
 Odessa, Texas 79765
 Phone: 432-563-1800
 Fax: 432-563-1713

Project Manager: Camille Bryant
 Company Name: Basin Environmental Consulting, LLC
 Company Address: P.O. Box 381
 City/State/Zip: Lovington, NM 88260
 Telephone No: (575)605-7210
 Project Name: Lea Station Landfarm
 Project #: 2004-00061
 Project Loc: Lea County, NM

PO #: PAA - J. Henry
 Report Format: Standard TRRP NPDES
 Fax No: (505) 396-1429
 e-mail: cibryant@basin-consulting.com
 Sampler Signature: Camille Bryant

LAB # (lab use only)	ORDER #:	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filled	Total # of Containers	Preservation & # of Containers							Matrix	Analyze For:
									Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ O ₂	None		
	376703	VZ Cell F G-1			6/10/10	0800		1	X							SOIL	TPH: 418.1 8015M TPH: TX 1006 TX 1006
		VZ Cell F G-2			6/10/10	0820		1	X							SOIL	TPH: TX 1006 TX 1006
		VZ Cell F G-3			6/10/10	0840		1	X							SOIL	TPH: TX 1006 TX 1006
		VZ Cell F G-4			6/10/10	0900		1	X							SOIL	TPH: TX 1006 TX 1006
		VZ Cell F G-5			6/10/10	0920		1	X							Soil	TPH: TX 1006 TX 1006

Special Instructions:

Relinquished by: Camille Bryant Date: 6/10/10 Time: 1300
 Received by: [Signature] Date: 6/10/10 Time: 1300

Relinquished by: [Signature] Date: 6/10 Time: 1610
 Received by: [Signature] Date: 6/10/10 Time: 16:10

Relinquished by: [Signature] Date: 6/10/10 Time: 16:10
 Received by: Andrea Sam Date: 6/10/10 Time: 16:10

Temperature Upon Receipt: 1.4 °C

by Courier? UPS DHL FedEX Lone Star
 by Sampler/Client Rep? UPS
 Sample Hand Delivered 40791955
 Custody seals on container(s) Y
 VOCs Free of Headspace? Y
 Laboratory Comments: Metals 200



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 374703
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>NO</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376704

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376704**
Lea Station Landfarm
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 376704. 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. 376704 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 376704



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell G G-1	S	Jun-10-10 09:40		376704-001
VZ Cell G G-2	S	Jun-10-10 10:00		376704-002
VZ Cell G G-3	S	Jun-10-10 10:20		376704-003
VZ Cell G G-4	S	Jun-10-10 10:40		376704-004
VZ Cell G G-5	S	Jun-10-10 11:00		376704-005



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061

Work Order Number: 376704

Report Date: 16-JUN-10

Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810308 Percent Moisture

None

Batch: LBA-810421 BTEX by EPA 8021

SW8021BM

Batch 810421, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376704-001,376704-005,376704-004,376704-003.

SW8021BM

Batch 810421, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376704-002, -001, -005, -003, -004.

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

SW8021BM

Batch 810421, m,p-Xylenes RPD was outside QC limits.

Samples affected are: 376704-002, -001, -005, -003, -004

Batch: LBA-810644 TPH by SW8015 Mod

None

Batch: LBA-810796 Inorganic Anions by EPA 300

None

Certificate of Analysis Summary 376704

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: Lea Station Landfarm

Project Id: 2004-00061

Contact: Jason Henry

Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm

Report Date: 16-JUN-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		376704-001	376704-002	376704-003	376704-004	376704-005
Lab Id:	Field Id:	VZ Cell G G-1	VZ Cell G G-2	VZ Cell G G-3	VZ Cell G G-4	VZ Cell G G-5
Depth:	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
Sampled:	Extracted:	Jun-10-10 09:40	Jun-10-10 10:00	Jun-10-10 10:20	Jun-10-10 10:40	Jun-10-10 11:00
Analyzed:	Analyzed:	Jun-11-10 10:45				
Units/RL:	Units/RL:	mg/kg RL				
Benzene		ND 0.0010	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0011
Toluene		ND 0.0020	ND 0.0021	ND 0.0021	ND 0.0020	ND 0.0021
Ethylbenzene		ND 0.0010	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0011
m,p-Xylenes		ND 0.0020	ND 0.0021	ND 0.0021	ND 0.0020	ND 0.0021
o-Xylene		ND 0.0010	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0011
Xylenes, Total		ND 0.0010	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0011
Total BTEX		ND 0.0010	ND 0.0010	ND 0.0011	ND 0.0010	ND 0.0011
Inorganic Anions In Soil by E300						
	<i>Extracted:</i>					
	<i>Analyzed:</i>	Jun-14-10 19:11				
	<i>Units/RL:</i>	mg/kg RL				
Chloride		8.87 5.06	10.9 5.21	8.70 5.31	6.58 5.02	6.79 5.33
Percent Moisture						
	<i>Extracted:</i>					
	<i>Analyzed:</i>	Jun-11-10 14:28				
	<i>Units/RL:</i>	%	%	%	%	%
Percent Moisture		1.17 1.00	3.98 1.00	5.90 1.00	ND 1.00	6.25 1.00
TPH by SW8015 Mod						
	<i>Extracted:</i>	Jun-11-10 14:30				
	<i>Analyzed:</i>	Jun-15-10 04:10	Jun-15-10 04:37	Jun-15-10 05:03	Jun-15-10 05:31	Jun-15-10 05:57
	<i>Units/RL:</i>	mg/kg RL				
C6-C12 Gasoline Range Hydrocarbons		ND 15.2	ND 15.6	ND 15.9	ND 15.0	ND 16.0
C12-C28 Diesel Range Hydrocarbons		ND 15.2	ND 15.6	ND 15.9	ND 15.0	ND 16.0
C28-C35 Oil Range Hydrocarbons		ND 15.2	ND 15.6	ND 15.9	ND 15.0	ND 16.0
Total TPH		ND 15.2	ND 15.6	ND 15.9	ND 15.0	ND 16.0

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.

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842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376704,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 565604-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 21:45	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0289	0.0300	96	80-120	
4-Bromofluorobenzene		0.0290	0.0300	97	80-120	

Lab Batch #: 810421

Sample: 565604-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 22:07	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0298	0.0300	99	80-120	
4-Bromofluorobenzene		0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 565604-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/12/10 23:15	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0240	0.0300	80	80-120	
4-Bromofluorobenzene		0.0289	0.0300	96	80-120	

Lab Batch #: 810421

Sample: 376702-001 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/13/10 00:00	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0287	0.0300	96	80-120	
4-Bromofluorobenzene		0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 376702-001 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 06/13/10 00:22	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021						
Analytes						
1,4-Difluorobenzene		0.0289	0.0300	96	80-120	
4-Bromofluorobenzene		0.0306	0.0300	102	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376704,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 376704-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 04:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 810421

Sample: 376704-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 05:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0239	0.0300	80	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 810421

Sample: 376704-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 05:36

SURROGATE RECOVERY STUDY

BTEX 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	0.0281	0.0300	94	80-120	

Lab Batch #: 810421

Sample: 376704-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 05:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 810421

Sample: 376704-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 06:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0236	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0285	0.0300	95	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376704,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 565718-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 21:29				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	132	99.8	132	70-135	
o-Terphenyl	51.0	49.9	102	70-135	

Lab Batch #: 810644

Sample: 565718-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 21:56				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.7	128	70-135	
o-Terphenyl	49.2	49.9	99	70-135	

Lab Batch #: 810644

Sample: 565718-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/14/10 22:23				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	51.9	49.8	104	70-135	

Lab Batch #: 810644

Sample: 376704-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/15/10 04:10				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	100	96	70-135	
o-Terphenyl	45.7	50.1	91	70-135	

Lab Batch #: 810644

Sample: 376704-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/15/10 04:37				
TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.7	99.9	99	70-135	
o-Terphenyl	47.8	50.0	96	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376704,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 376704-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	98.5	99.8	99	70-135	
o-Terphenyl	48.5	49.9	97	70-135	

Lab Batch #: 810644

Sample: 376704-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	90.5	99.8	91	70-135	
o-Terphenyl	42.6	49.9	85	70-135	

Lab Batch #: 810644

Sample: 376704-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	50.7	50.0	101	70-135	

Lab Batch #: 810644

Sample: 376705-003 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	49.3	50.2	98	70-135	

Lab Batch #: 810644

Sample: 376705-003 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	124	100	124	70-135	
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.

Project Name: Lea Station Landfarm

Work Order #: 376704
Analyst: ASA
Lab Batch ID: 810421
Sample: 565604-1-BKS
Units: mg/kg

Date Prepared: 06/11/2010
Batch #: 1
Date Analyzed: 06/12/2010
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0946	95	0.1	0.0998	100	5	70-130	35	
Toluene	ND	0.1000	0.0915	92	0.1	0.0960	96	5	70-130	35	
Ethylbenzene	ND	0.1000	0.0908	91	0.1	0.0957	96	5	71-129	35	
m,p-Xylenes	ND	0.2000	0.1791	90	0.2	0.1895	95	6	70-135	35	
o-Xylene	ND	0.1000	0.0905	91	0.1	0.0958	96	6	71-133	35	

Analyst: LATCOR
Lab Batch ID: 810796
Sample: 810796-1-BKS
Units: mg/kg

Date Prepared: 06/14/2010
Batch #: 1
Date Analyzed: 06/14/2010
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Inorganic Anions In Soil by E300											
Chloride	ND	10.0	8.62	86	10	9.52	95	10	75-125	20	

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: Lea Station Landfarm

Work Order #: 376704

Analyst: BEV

Lab Batch ID: 810644

Sample: 565718-1-BKS

Date Prepared: 06/11/2010

Batch #: 1

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
TPH by SW8015 Mod	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	998	1150	115	997	1160	116	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	893	89	997	878	88	2	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376704

Lab Batch #: 810796

Date Analyzed: 06/14/2010

QC- Sample ID: 376701-004 S

Reporting Units: mg/kg

Date Prepared: 06/14/2010

Batch #: 1

Project ID: 2004-00061

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	5.94	104	113	103	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative 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: Lea Station Landfarm

Work Order #: 376704

Project ID: 2004-00061

Lab Batch ID: 810421

Batch #: 1 Matrix: Soil

Date Analyzed: 06/13/2010

QC-Sample ID: 376702-001 S

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021											
Benzene	ND	0.1089	0.0679	62	0.1096	0.0662	60	3	70-130	35	X
Toluene	ND	0.1089	0.0596	55	0.1096	0.0549	50	8	70-130	35	X
Ethylbenzene	ND	0.1089	0.0666	61	0.1096	0.0618	56	7	71-129	35	X
m,p-Xylenes	ND	0.2179	0.0639	29	0.2192	0.0394	18	47	70-135	35	XF
o-Xylene	ND	0.1089	0.0642	59	0.1096	0.0598	55	7	71-133	35	X

Lab Batch ID: 810644

Matrix: Soil

Date Analyzed: 06/15/2010

QC-Sample ID: 376705-003 S

Batch #: 1 Matrix: Soil

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spiked Sample Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH by SW8015 Mod											
C6-C12 Gasoline Range Hydrocarbons	ND	1060	1140	108	1060	1140	108	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	889	84	1060	894	84	1	70-135	35	

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

Relative Percent Difference RPD 200*(C-F)/(C+F)

ND Not Detected, J Present Below Reporting Limit, B Present in Blank, NR Not Requested, I Interference, NA Not

Applicable N See Narrative, EQ Estimated Quantitation Limit

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376704

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	5.94	ND	NC	20	

Lab Batch #: 810308

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376702-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.12	8.67	5	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376704
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376704
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis

Analytical Report 376705

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Lea Station Landfarm

2004-00061

16-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)



16-JUN-10

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

Reference: XENCO Report No: **376705**
Lea Station Landfarm
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 376705. 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. 376705 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 376705



PLAINS ALL AMERICAN EH&S, Midland, TX

Lea Station Landfarm

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell H G-1	S	Jun-10-10 11:20		376705-001
VZ Cell H G-2	S	Jun-10-10 11:40		376705-002
VZ Cell H G-3	S	Jun-10-10 12:00		376705-003



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Lea Station Landfarm



Project ID: 2004-00061
Work Order Number: 376705

Report Date: 16-JUN-10
Date Received: 06/10/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-810308 Percent Moisture

None

Batch: LBA-810421 BTEX by EPA 8021
SW8021BM

Batch 810421, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 376705-002, -003, -001.

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

SW8021BM

Batch 810421, m,p-Xylenes RPD was outside QC limits.

Samples affected are: 376705-002, -003, -001

SW8021BM

Batch 810421, 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 376705-002.

Batch: LBA-810644 TPH by SW8015 Mod

None

Batch: LBA-810796 Inorganic Anions by EPA 300

None



Certificate of Analysis Summary 376705

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: 2004-00061
Contact: Jason Henry
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-10-10 04:10 pm
Report Date: 16-JUN-10
Project Manager: Brent Barron, II

Project Name: Lea Station Landfarm

<i>Analysis Requested</i>		Lab Id:	376705-001	376705-002	376705-003
		Field Id:	VZ Cell H G-1	VZ Cell H G-2	VZ Cell H G-3
		Depth:			
		Matrix:	SOIL	SOIL	SOIL
		Sampled:	Jun-10-10 11:20	Jun-10-10 11:40	Jun-10-10 12:00
BTEX by EPA 8021		Extracted:	Jun-11-10 10:45	Jun-11-10 10:45	Jun-11-10 10:45
		Analyzed:	Jun-13-10 06:43	Jun-13-10 07:06	Jun-13-10 07:28
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL
Benzene			ND 0.0011	ND 0.0010	ND 0.0011
Toluene			ND 0.0022	ND 0.0021	ND 0.0021
Ethylbenzene			ND 0.0011	ND 0.0010	ND 0.0011
m,p-Xylenes			ND 0.0022	ND 0.0021	ND 0.0021
o-Xylene			ND 0.0011	ND 0.0010	ND 0.0011
Xylenes, Total			ND 0.0011	ND 0.0010	ND 0.0011
Total BTEX			ND 0.0011	ND 0.0010	ND 0.0011
Inorganic Anions In Soil by E300		Extracted:			
		Analyzed:	Jun-14-10 19:11	Jun-14-10 19:11	Jun-14-10 19:11
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL
Chloride			11.4 5.42	ND 5.24	ND 5.26
Percent Moisture		Extracted:			
		Analyzed:	Jun-11-10 14:28	Jun-11-10 14:28	Jun-11-10 14:28
		Units/RL:	% RL	% RL	% RL
Percent Moisture			7.74 1.00	4.49 1.00	5.03 1.00
TPH by SW8015 Mod		Extracted:	Jun-11-10 14:30	Jun-11-10 14:30	Jun-11-10 14:30
		Analyzed:	Jun-15-10 06:25	Jun-15-10 06:51	Jun-15-10 07:18
		Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons			ND 16.3	ND 15.6	ND 15.8
C12-C28 Diesel Range Hydrocarbons			ND 16.3	ND 15.6	ND 15.8
C28-C35 Oil Range Hydrocarbons			ND 16.3	ND 15.6	ND 15.8
Total TPH			ND 16.3	ND 15.6	ND 15.8

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.

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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

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376705,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 565604-1-BKS / BKS

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 21:45				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 810421

Sample: 565604-1-BSD / BSD

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 22:07				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 565604-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/12/10 23:15				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 810421

Sample: 376702-001 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/13/10 00:00				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 810421

Sample: 376702-001 SD / MSD

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 06/13/10 00:22				
BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	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.

Form 2 - Surrogate Recoveries

Project Name: **Lea Station Landfarm**

Work Orders : 376705,

Project ID: 2004-00061

Lab Batch #: 810421

Sample: 376705-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 06:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 810421

Sample: 376705-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 07:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	*
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 810421

Sample: 376705-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/13/10 07:28

SURROGATE RECOVERY STUDY

BTEX 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	0.0305	0.0300	102	80-120	

Lab Batch #: 810644

Sample: 565718-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 21:29

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	132	99.8	132	70-135	
o-Terphenyl	51.0	49.9	102	70-135	

Lab Batch #: 810644

Sample: 565718-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/14/10 21:56

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.7	128	70-135	
o-Terphenyl	49.2	49.9	99	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.

Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376705,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 565718-1-BLK / BLK

Batch: 1 **Matrix:** Solid

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	51.9	49.8	104	70-135	

Lab Batch #: 810644

Sample: 376705-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	96.5	100	97	70-135	
o-Terphenyl	47.5	50.1	95	70-135	

Lab Batch #: 810644

Sample: 376705-002 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	103	99.5	104	70-135	
o-Terphenyl	50.0	49.8	100	70-135	

Lab Batch #: 810644

Sample: 376705-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	97.6	99.8	98	70-135	
o-Terphenyl	47.3	49.9	95	70-135	

Lab Batch #: 810644

Sample: 376705-003 S / MS

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	125	100	125	70-135	
o-Terphenyl	49.3	50.2	98	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.



Form 2 - Surrogate Recoveries

Project Name: Lea Station Landfarm

Work Orders : 376705,

Project ID: 2004-00061

Lab Batch #: 810644

Sample: 376705-003 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/15/10 08:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
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.

Project Name: Lea Station Landfarm

Work Order #: 376705
Analyst: ASA
Lab Batch ID: 810421
Units: mg/kg

Project ID: 2004-00061
Date Analyzed: 06/12/2010
Matrix: Solid

Date Prepared: 06/11/2010
Batch #: 1

Sample: 565604-1-BKS

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
BTEX by EPA 8021											
Benzene	ND	0.1000	0.0946	95	0.1	0.0998	100	5	70-130	35	
Toluene	ND	0.1000	0.0915	92	0.1	0.0960	96	5	70-130	35	
Ethylbenzene	ND	0.1000	0.0908	91	0.1	0.0957	96	5	71-129	35	
m,p-Xylenes	ND	0.2000	0.1791	90	0.2	0.1895	95	6	70-135	35	
o-Xylene	ND	0.1000	0.0905	91	0.1	0.0958	96	6	71-133	35	

Date Prepared: 06/14/2010
Batch #: 1

Date Analyzed: 06/14/2010
Matrix: Solid

Analyst: LATCOR
Lab Batch ID: 810796
Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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
Inorganic Anions In Soil by E300											
Chloride	ND	10.0	8.62	86	10	9.52	95	10	75-125	20	

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



BS / BSD Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376705

Analyst: BEV

Lab Batch ID: 810644

Sample: 565718-1-BKS

Date Prepared: 06/11/2010

Batch #: 1

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
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	998	1150	115	997	1160	116	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	893	89	997	878	88	2	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Lea Station Landfarm

Work Order #: 376705

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	5.94	104	113	103	75-125	

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

BRL - Below Reporting Limit

Project Name: Lea Station Landfarm

Work Order #: 376705

Project ID: 2004-00061

Lab Batch ID: 810421

Batch #: 1 Matrix: Soil

Date Analyzed: 06/13/2010

QC-Sample ID: 376702-001 S

Date Prepared: 06/11/2010 Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	ND	0.1089	0.0596	55	0.1096	0.0549	50	8	70-130	35	X
	ND	0.1089	0.0666	61	0.1096	0.0618	56	7	71-129	35	X
m,p-Xylenes	ND	0.2179	0.0639	29	0.2192	0.0394	18	47	70-135	35	XF
o-Xylene	ND	0.1089	0.0642	59	0.1096	0.0598	55	7	71-133	35	X

Lab Batch ID: 810644

QC-Sample ID: 376705-003 S Batch #: 1 Matrix: Soil

Date Analyzed: 06/15/2010

Date Prepared: 06/11/2010 Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1060	889	84	1060	894	84	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	889	84	1060	894	84	1	70-135	35	

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

Sample Duplicate Recovery

Project Name: Lea Station Landfarm

Work Order #: 376705

Lab Batch #: 810796

Project ID: 2004-00061

Date Analyzed: 06/14/2010

Date Prepared: 06/14/2010

Analyst: LATCOR

QC- Sample ID: 376701-004 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Inorganic Anions In Soil by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	5.94	ND	NC	20	

Lab Batch #: 810308

Date Analyzed: 06/11/2010

Date Prepared: 06/11/2010

Analyst: JLG

QC- Sample ID: 376702-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.12	8.67	5	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



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: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376705
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles?</u>	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
7. Chain of custody signed when relinquished / received?	<u>Yes</u>	No		
8. Chain of custody agrees with sample label(s)?	<u>Yes</u>	No		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	No	<u>N/A</u>	
17. VOC sample have zero head space?	<u>Yes</u>	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs <u>1.4</u> °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - Initial and Backup Temperature confirm out of temperature conditions
 - Client understands and would like to proceed with analysis



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

Document Title: Sample Receipt Checklist
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Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Env. / Plains
 Date/Time: 6-10-10 10:10
 Lab ID #: 376705
 Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	<input checked="" type="radio"/> Water	No	
2. Shipping container in good condition?	<input checked="" type="radio"/> Yes	No	None	
3. Custody seals intact on shipping container (cooler) and <u>bottles</u> ?	<input checked="" type="radio"/> Yes	No	N/A	
4. Chain of Custody present?	<input checked="" type="radio"/> Yes	No		
5. Sample instructions complete on chain of custody?	<input checked="" type="radio"/> Yes	No		
6. Any missing / extra samples?	Yes	<input checked="" type="radio"/> No		
7. Chain of custody signed when relinquished / received?	<input checked="" type="radio"/> Yes	No		
8. Chain of custody agrees with sample label(s)?	<input checked="" type="radio"/> Yes	No		
9. Container labels legible and intact?	<input checked="" type="radio"/> Yes	No		
10. Sample matrix / properties agree with chain of custody?	<input checked="" type="radio"/> Yes	No		
11. Samples in proper container / bottle?	<input checked="" type="radio"/> Yes	No		
12. Samples properly preserved?	<input checked="" type="radio"/> Yes	No	N/A	
13. Sample container intact?	<input checked="" type="radio"/> Yes	No		
14. Sufficient sample amount for indicated test(s)?	<input checked="" type="radio"/> Yes	No		
15. All samples received within sufficient hold time?	<input checked="" type="radio"/> Yes	No		
16. Subcontract of sample(s)?	Yes	No	<input checked="" type="radio"/> N/A	
17. VOC sample have zero head space?	<input checked="" type="radio"/> Yes	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 1.4 °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

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