State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised October 10, 2003

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action 1RP-2336

	OPERATOR	Initial Report X Final Report							
Name of Company Plains Pipeline, LP	Contact Jason Henry								
Address 2530 Hwy 214 – Denver City, Tx 79323	Telephone No. (575) 441-10	99							
Facility Name EK Queen 6-inch Sec. 15	Facility Type Pipeline								
Surface Owner NMSLO Mineral Own	ner	Lease No.							
LOCAT	ION OF RELEASE	AP1 30.025.12803							
Unit LetterSectionTownshipRangeFeet from theNG1518S34E	orth/South Line Feet from the	East/West Line County Lea							
	74821 Longitude W 103.5447								
	RE OF RELEASE								
Type of Release Crude Oil	Volume of Release 15 bbis	Volume Recovered 0 bbls							
Source of Release 6" Steel Pipeline	Date and Hour of Occurrence 10/19/2009	Date and Hour of Discovery 10/19/2009 14:45							
Was Immediate Notice Given? '	If YES, To Whom?	9 (release originally estimated 2 bbls, revised							
By Whom? Jason Henry									
Was a Watercourse Reached?	If YES, Volume Impacting th								
If a Watercourse was Impacted, Describe Fully.*		HOBBSOCD							
Describe Cause of Problem and Remedial Action Taken.* Intern subject line is approximately 470 bbls/day and the operating pre- bgs. The H2S concentration in the crude is less than 10 ppm and Describe Area Affected and Cleanup Action Taken.* . The released crude resulted in a surface stain that measured app <i>Remediation Summary and Site Closure Request</i> for details of rem	sure is 100 psi. The depth of the p the gravity of the crude is 40.	ipeline at the release point is approximately 2'							
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.									
Signature: Jason Henry	OIL CONSERVATION DIVISION								
Printed Name: Jason Henry Title: Remediation Coordinator	Approved by District Superviso								
Title: Remediation Coordinator E-mail Address: jhenry@paalp.com	Approval Date: 6 · Z · (O) Expiration Date: Conditions of Approval: Attached								
Date: 06/02/2010 Phone: (575) 441-1099		IRP# Z336							

* Attach Additional Sheets If Necessary

NLWI 1015530813

Basin Environmental Consulting, LLC

2800 Plains Highway P. O. Box 381 Lovington, New Mexico 88260 cdstanley@basin-consulting.com Office: (575) 396-2378 Fax: (575) 396-1429

ŵ Effective Solutions

REMEDIATION SUMMARY

AND

SITE CLOSURE REQUEST

PLAINS PIPELINE, L.P. (231735) EK Queen 6-Inch Sec. 15 Lea County, New Mexico Plains SRS# 2009-236 UNIT "G" (SW/NE), Section 15, Township 18 South, Range 34 East Latitude 32.74821° North, Longitude 103.5447° West 1RP-2335

Prepared For:

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

FINAL

HOBREOCD

Prepared By: Basin Environmental Consulting, LLC

April 2010

Curt D.

Project Manager

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Table 1 – Concentrations of BTEX and TPH in Soil

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

1.0 INTRODUCTION

Basin Environmental Consulting, LLC (Basin), on behalf of Plains Pipeline, L.P. (Plains), has prepared this Remediation Summary and Site Closure Request for the release site known as EK Queen 6-Inch Sec. 15 (SRS# 2009-236). The site is located in Unit Letter "G" (SW ¼ NE ¼), Section 15, Township 18 South, Range 34 East, in Lea County, New Mexico. The property is owned by the State of New Mexico and administered by the New Mexico State Land Office (NMSLO). A Right-of-Entry permit (ROE-1871) was granted by the NMSLO, Santa Fe Office. The site latitude is 32.74821° North, and the longitude is 103.5447° West. The Site Location and Site and Sample Location Map are provided as Figure 1 and Figure 2, respectively.

The release volume was initially deemed to be approximately two (2) barrels and non-reportable under New Mexico Oil Conservation Division (NMOCD) rules. Following further investigation of the release, Plains opted to increase the estimated volume of the release and re-classify the release as a reportable quantity.

The Release Notification and Corrective Action (NMOCD Form C-141) indicated approximately fifteen (15) barrels of crude oil was released from the Plains pipeline and zero (0) barrels were recovered during the initial response activities, resulting in a net loss of fifteen (15) barrels of crude oil. The Release Notification and Corrective Action is provided as Appendix C.

The release occurred on October 19, 2009, on a six (6) inch steel pipeline and was the result of internal corrosion of the pipeline. Plains operations personnel mitigated the crude oil release by installing a temporary clamp on the pipeline. The impacted soil excavated during initial response activities was stockpiled on a 6-mil poly liner adjacent to the excavation. The initial visually stained area covered an area measuring approximately five (5) feet in width and five (5) feet in length. General site Photographs are provided as Appendix B.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Office of the State Engineer (NMOSE) database indicates average depth to groundwater is approximately 110 feet below ground surface (bgs) in the northwest quarter of the section. A reference map utilized by the New Mexico Oil Conservation Division (NMOCD) indicates groundwater should be encountered at approximately 115 feet bgs. The depth to groundwater at the EK Queen 6-Inch Sec 15 release site, results in a score of zero (0) points being assigned to the site, based on the NMOCD depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there is one (1) water well located less than 1,000 feet from the release. Field observations indicated the water well may be abandoned, as the casing is open to the atmosphere and no pump appears to be installed in the water well. The upgradient water well requires twenty (20) points be assigned to this site as a result of this criterion.

There is an earthen stock tank located within 1,000 feet of the site. Based on the NMOCD ranking system ten (10) points will be assigned to the site as a result of the criteria.

The NMOCD guidelines indicate EK Queen 6-Inch Sec 15 the release site has a ranking score of thirty (30). Based on this score, the soil remediation levels for a site with a ranking score of thirty (30) points are as follows:

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

3.0 SUMMARY OF FIELD ACTIVITIES

On October 28 through October 30, 2009, delineation trenches were excavated to investigate the horizontal and vertical extent of impact at the release site. Following the trenching activities, a soil sample (RP - 15' bgs) was collected approximately fifteen (15) feet below the release point. The analytical results indicated total petroleum hydrocarbon (TPH) concentrations were less than the laboratory method detection limit (MDL) of 15.6 mg/Kg. A summary of Concentrations of BTEX and TPH in Soil in provided as Table 1 and laboratory analytical reports are provided as Appendix A.

On November 2 through November 6, 2009, impacted soil was excavated from the release site and stockpiled on a 6 mil poly liner adjacent to the excavation. On November 4, 2009, a five (5) point composite soil sample (Stockpile Baseline) was collected from the impacted soil stockpile to determine the final disposition of the stockpile. The analytical results indicated the benzene concentration was less than the laboratory MDL of 0.0010 mg/Kg, the benzene, toluene, ethylbenzene and xylene (BTEX) concentration was 0.1719 mg/Kg and the TPH concentration was 966 mg/Kg.

On November 6, 2009, four (4) excavation sidewall soil samples (WSW, NSW, ESW and SSW) were collected and submitted to the laboratory for benzene, BTEX and TPH analysis. The analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL for each soil sample. In addition, an excavation floor soil sample (Floor) was collected and submitted to the laboratory for analysis. The analytical results indicated the benzene and BTEX concentration were less than the laboratory MDL and the TPH concentration was 48.2 mg/Kg.

On January 12, 2010, Plains and Basin representatives met with an NMOCD Hobbs District Office representative to present the results of the soil sampling event and request permission to backfill the excavation. The NMOCD representative requested Plains blend the soil stockpile and resample the soil prior to requesting permission to backfill. On January 13, 2009, the stockpile was blended and placed in a two (2) foot thick cell.

On February 1, 2010, a soil sample (SP-1) was collected from the cell and submitted to the laboratory for benzene, BTEX and TPH analysis. The analytical results indicated the benzene concentration was less than the laboratory MDL. The BTEX concentration was 0.0133 mg/Kg and the TPH concentration was 268 mg/Kg.

On February 25, 2010, Basin and Plains representatives presented the *Remediation Summary and* Site Closure Proposal (Proposal) to the NMOCD Hobbs District Office. The Proposal was

approved by the NMOCD on February 25, 2010 and excavation backfill activities commenced on March 3, 2010.

On March 9, 2010, excavation backfill activities were completed and the site was contoured to fit the surrounding topography. The site will be reseeded with vegetation specified by the NMSLO.

4.0 **QA/QC PROCEDURES**

4.1 Soil Sampling

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

The soil samples were analyzed as follows:

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

4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned with Liqui-Nox[®] detergent and rinsed with distilled water.

4.3 Laboratory Protocol

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

5.0 SITE CLOSURE REQUEST

Based on the analytical results of confirmation soil samples and as approved by the NMOCD Hobbs District Office, Basin recommends Plains provide the NMOCD Hobbs District Office a copy of the Remediation Summary and Site Closure Request and request the NMOCD grant site closure to the EK Queen 6-Inch Sec. 15 release site.

6.0 LIMITATIONS

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

Basin Environmental Consulting, LLC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Consulting, LLC has not conducted an independent examination of the facts contained in

referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Consulting, LLC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Consulting, LLC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

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

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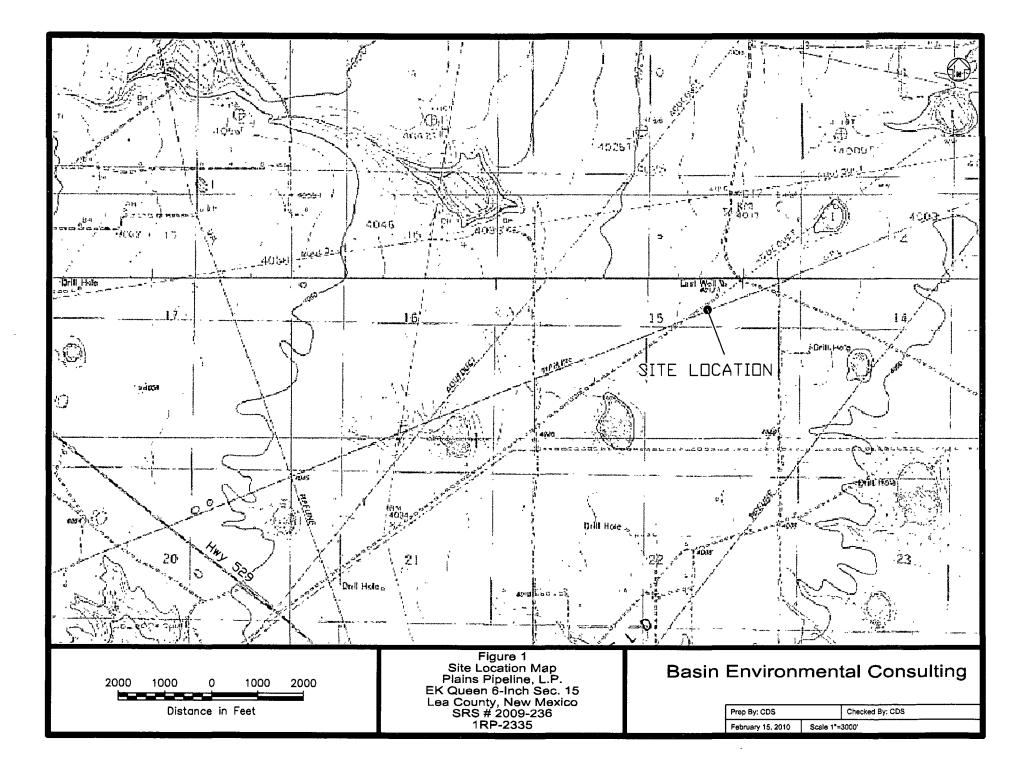
7.0 **DISTRIBUTION:**

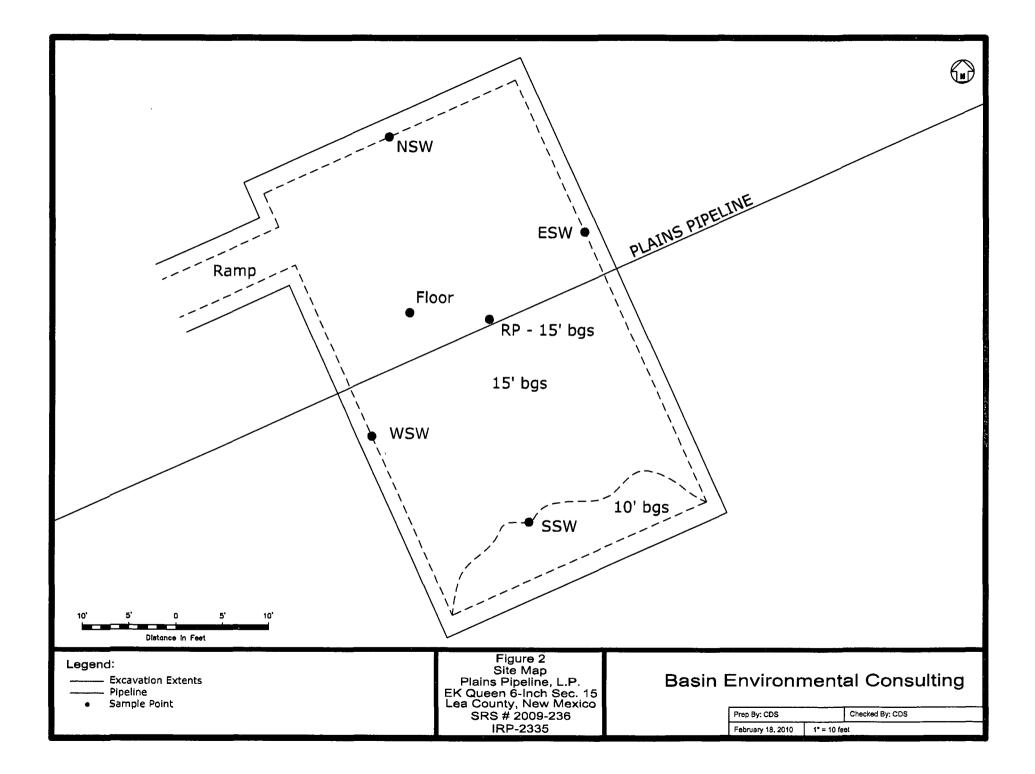
- Copy 1: Larry Johnson New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 1) 1625 French Drive Hobbs, New Mexico 88240 larry.johnson@state.nm.us
- Copy 2: Brian Henington New Mexico State Land Office 310 Old Santa Fe Trail P. O. Box 1148 Santa Fe, New Mexico 87504-1148 bhenington@slo.state.nm.us
- Copy 3: Jeff Dann Plains Pipeline, L.P. 333 Clay Street, Suite 1600 Houston, Texas 77002 jpdann@paalp.com
- Copy 4: Jason Henry Plains Pipeline, L.P. 2530 State Highway 214 Denver City, Texas 79323 jhenry@paalp.com
- Copy 5: Basin Environmental Consulting, LLC P.O. Box 381 Lovington, New Mexico 88260 cdstanley@basin-consulting.com

Figures

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Tables

Table 1

CONCENTRATIONS OF BTEX AND TPH IN SOIL PLAINS PIPELINE, LP EK QUEEN 6-INCH SEC 15 LEA COUNTY, NEW MEXICO SRS # 2009-236 NMOCD REF # 1RP-2335

					ME	THOD: EPA SW	846-8021B, 503	0	-		SW 84	8-8015M	
SAMPLE DATE	SAMPLE LOCATION	SAMPLE DEPTH	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M,P- XYLENE (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C6-C12 (mg/Kg)	DRO C12-C28 (mg/Kg)	ORO C28-C35 (mg/Kg)	TOTAL TPH C6-C35 (mg/Kg)
10/30/09	RP - 15' bgs	15 feet	In-Situ	-	-	-	-	-	-	<156	<15.6	<15.6	<15.6
	· · · · · ·		1999 - 1997 - 19	1.	;	۰ ۲			5 a	۰. ۱	Sec. 2	the second	۰ ،
11/04/09	Stockpile Baseline	N/A	Stockpile	<0.0010	0.0031	0.0069	0 0646	0.0973	0 1719	189	777	<15.6	966
					-		~ ~						
11/06/09	WSW	14 5 feet	In-Situ	<0 0010	<0 0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.2	<15.2	<15.2	<152
11/06/09	NSW	145 feet	In-Situ	<0 0010	<0 0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.4	<15.4	<15.4	<15.4
11/06/09	ESW	14.5 feet	In-Situ	<0 0010	<0 0021	<0.0010	<0.0021	<0.0010	< 0.0021	<15.5	<15.5	<15.5	<155
11/06/09	SSW	145 feet	In-Situ	<0 0010	<0 0020	<0.0010	<0.0020	<0.0010	<0.0020	<15.0	<15.0	<15.0	<150
11/06/09	Floor	15 feet	In-Situ	<0 0010	<0 0021	<0 0010	<0.0021	<0 0010	<0.0021	<15 4	48.2	<15.4	48.2
									•		· ·		
02/01/10	SP-1	N/A	Stockpile	<0.0011	<0.0022	0 0086	<0 0022	0 0047	0.0133	21.1	228	192	268
¥			۰, ۰		-	÷ 's	· · · · ·						1

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Appendices

Appendix A Laboratory Analytical Reports

Analytical Report 350751

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

EK Queen 6" Sec. 15

2009-236

06-NOV-09





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-08-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 (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87428), 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 (T104704400-08-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240), South Carolina(96031001), Louisiana(04154), Georgia(917)



06-NOV-09



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

Reference: XENCO Report No: **350751 EK Queen 6'' Sec. 15** Project Address: Lea Co., 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 350751. 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. 350751 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 350751

PLAINS ALL AMERICAN EH&S, Midland, TX

EK Queen 6" Sec. 15

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
RP-15' bgs	S	Oct-30-09 14:30		350751-001

CASE NARRATIVE



Client Name: PLAINS ALL AMERICAN EH&S Project Name: EK Queen 6" Sec. 15

 Project ID:
 2009-236

 Work Order Number:
 350751

Report Date: 06-NOV-09 Date Received: 11/03/2009

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-780156 Percent Moisture None

Batch: LBA-780329 TPH by SW8015 Mod None



Project Id: 2009-236 Contact: Jason Henry Project Location: Lea Co., NM

Certificate of Analysis Summary 350751 PLAINS ALL AMERICAN EH&S, Midland, TX



Project Name: EK Queen 6" Sec. 15

Date Received in Lab: Tue Nov-03-09 10:22 am

Report Date: 06-NOV-09

Project Manager: Brent Barron, II

Lab Id:	350751-001					
Field Id:	RP-15' bgs					
Depth:						
Matrix:	SOIL					
Sampled:	Oct-30-09 14:30					
Extracted;						
Analyzed:	Nov-03-09 17:00					
Units/RL:	% RL					
	3.95 1.00					
Extracted:	Nov-04-09 10:45					
Analyzed:	Nov-04-09 18:20					
Units/RL:	mg/kg RL					
	ND 15.6					
	ND 15.6					
	ND 15.6					
	ND 15.6					
	Field Id: Depth: Matrix: Sampled: Extracted: Analyzed: Units/RL: Extracted: Analyzed:	Field Id: RP-15' bgs Depth: SOIL Matrix: SOIL Sampled: Oct-30-09 14:30 Extracted: Nov-03-09 17:00 Units/RL: % RL Sampled: Nov-03-09 17:00 Units/RL: % RL Sampled: Nov-04-09 10:45 Analyzed: Nov-04-09 18:20 Units/RL: mg/kg RL ND 15.6 ND 15.6 ND 15.6	Field Id: RP-15' bgs Depth: Matrix: SOIL Sampled: Oct-30-09 14:30 Extracted: Analyzed: Nov-03-09 17:00 Units/RL: % RL Source Nov-04-09 10:45 Analyzed: Nov-04-09 10:45 Analyzed: Nov-04-09 18:20 Units/RL: mg/kg RL ND 15.6 ND 15.6 ND 15.6	Field Id: RP-15' bgs Depth:	Field Id: RP-15' bgs Depth:	Field Id: RP-15' bgs Depth:

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 lability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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Version. 1 008

Brent Barron, II

Odessa Laboratory Manager





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

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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

Final Ver. 1.000



Form 2 - Surrogate Recoveries

Project Name: EK Queen 6" Sec. 15

' ork Orders : 350751 Lab Batch #: ⁷⁸⁰³²⁹	, Sample: 542375-1-BKS / B.	KS Bate	Project ID: 2009-236 Batch: ¹ Matrix: Solid										
Units: mg/kg	Date Analyzed: 11/04/09 13:17	SU	RROGATE R	ECOVERY	STUDY								
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag							
1-Chlorooctane	Analytes												
o-Terphenyl		43.4	99.8 49.9	105	70-135								
	0 1 542275 1 DSD / D				70-155								
Lab Batch #: 780329 Units: mg/kg	Sample: 542375-1-BSD / B Date Analyzed: 11/04/09 13:43		h: Matrix RROGATE R		STUDY								
	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag							
I-Chlorooctanc	Analytes	106	99 9		70.125								
o-Terphenyl		43.9	50.0	106	70-135								
					10-155								
Lab Batch #: 780329	Sample: 542375-1-BLK / B		h: 1 Matrix RROGATE R		STUDY								
Units: mg/kg	Date Analyzed: 11/04/09 14:08				·								
ТРН	by SW8015 Mod Analytes	Amount Found {A}	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag							
I-Chlorooctanc		85 5	100	86	70-135								
o-Terphenyl	······································	48.0	50.0	96	70-135								
Lab Batch #: 780329	Sample: 350751-001 / SMP	Bate	h: 1 Matrix	:Soil									
Units: mg/kg	Date Analyzed: 11/04/09 18:20	SU	RROGATE R	ECOVERY	STUDY								
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag							
	Analytes		00.6		70.125								
I-Chlorooctane		82.9	99.6 49.8	83 90	70-135								
	Sample: 350777-001 S / MS					L							
Lab Batch #: 780329 Units: mg/kg	Date Analyzed: 11/05/09 02:23		RROGATE R		STUDY								
	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag							
	Analytes												
1-Chlorooctanc		103	100	103	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: EK Queen 6" Sec. 15

Vork Orders : 350751 Lab Batch #: 780329	Sample: 350777-001 SD / N											
Units: mg/kg Date Analyzed: 11/05/09 02:49 TPH by SW8015 Mod Analytes		Amount True Control Found Amount Recovery Limits [A] [B] %R %R										
I-Chlorooctanc		107	99.6	107	70-135							
o-Terphenyl		44.5	49.8	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.

1





Project Name: EK Queen 6" Sec. 15

Work Order #: 350751 Analyst: BEV Lab Batch ID: 780329	Sample: 542375-1-B		Batch				Project ID: 2009-236 Date Analyzed: 11/04/2009 Matrix: Solid											
Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY																
TPH by SW80	15 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag						
Analytes			[B]	[C]	[D]	[E]	Result [F]	[G]										
C6-C12 Gasoline Range Hydroc	arbons	ND	998	905	91	999	920	92	2	70-135	35							
C12-C28 Diesel Range Hydroca	rbons	ND	998	758	76	999	801	80	6	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 and a water to prove and

308 .ms* 1 1 2



Project Name: EK Queen 6" Sec. 15



Work Order #: 350751		Project ID: 2009-236												
Lab Batch ID: 780329 Date Analyzed: 11/05/2009		PC- Sample ID: 350777-001 S Batch #: 1 Matrix: Soil Date Prepared: 11/04/2009 Analyst: BEV												
Reporting Units: mg/kg		MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Sample		Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag			
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD				
C6-C12 Gasoline Range Hydrocarbons	ND	1150	1080	94	1150	1110	97	3	70-135	35				
C12-C28 Diesel Range Hydrocarbons	ND	1150	1120	97	1150	1150	100	3	70-135	35				

Matrix Spike Percent Recovery $[D] = 100^{\circ}(C-A)/B$ Relative Percent Difference RPD = $200^{\circ}[(C-F)/(C+F)]$ Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

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





Project Name: EK Queen 6" Sec. 15

Work Order #: 350751

Lab Batch #: 780156				Project I	D: 2009-230	5			
Date Analyzed: 11/03/2009	Date Prepar	ed: 11/03/2009	Anal	yst: WRU					
QC- Sample ID: 350659-001 D	Batel	n#: 1	Mat	Matrix: Soil					
Reporting Units: %		SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY			
Percent Moisture		Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag			
Analyte			[B]						
Percent Moisture		3.85	3.61	6	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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

The Environmental Lab of Texas							/est I-2 , Texas													3-18(3-171					
Project Manager: CURTST											Pr	ojec	t Nan	no: <u>E</u>	51	<u>_</u>	R	æ	51	<u>ు(</u>	<u>ð</u> '	5	टा	<u>. </u> ≤	5
Company Name BASINEN	VIRON	MENINC		(Pr	ojeci	#: <u>c</u>	20	Ø	7.	- 2	23	<u>34</u>	,				_
Company Address: <u>2800 PL</u>	TINS	Huy										Proje	ect Le	ж:		<u>Ê</u> r	4	$\underline{\mathcal{C}}$)	٨	W	1_			
City/State/Zip: Launche	n.A	M 882	ZUD										PO	#:_{	₽⁄	11	+-		Ĵ	He	<u>57</u>	JP	1		
	- 274		Fax No:	5	75	5 7	A 6	- 14	42	9	Repor	t Fo	rmat	Ł	Sta	 Indar	d		□ ·	TRRF	Р		(NPD	ES	
Sampler Signature: H-Starby	budo	WATER	🤇 e-mail:	\underline{C}	15	tan	lesa	oba	ม ม	۱(to ser	IJ	X	.7	211									_	
(fab use only)	2						r	-						-	CLP:	An	alyz	e Fo	or.		T	1	Н	ę	
ORDER #: 350751		· · · · · · · · · · · · · · · · · · ·			F	reserv	alion & £	of Co	ntainer	s	Matrix	85			DTAL:	8		+	8					48, 72 hrs	
(Ajuo esr	Depth Sth	oled	pled	itamens						(/)	ater SL=Studge iter S=Soll/Solid Specify Other	8015M 801	05 TX 1006	Ag, Na, K) M, Alkatinity)	SEC.	Metals: As Ag Ba Cd Cr Pb Hg Se			BTE: 802187030 or BTEX 8260					(Pre-Schedule) 24, AT	
Aries and a second seco	Beginning Depth Ending Depth	Date Sampled		F/eid Fillered Total #. of Containers	lce	FONH	H2O.	NaOH Na-S-O-	Nane	Other (Specify	OW∞Drmking Water GW = Groundwater NP=Non-Potable 5	TPH: 418.1 (TPH: TX 1005	Cations (Ca, Mg, Na, K) Anions (Cl, SO4, Altatinity)	SAR / ESP / CEC	Metals: As Ag	Volatiles	Semivolatiles	BTE 802187	RCI	N.O.R M		TAT	RUSH IAT (Pre-Schedule) Standard TAT	
01 KP-15'las		10/30/09	1430		X					_4	Sar	赵	┝╌╂		-				X	+	+-		┝╋	+	4
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Relinquished by Date	Time	Received by ELOT:		im					11.	Dat 3.	09 10	Time)`. Z	2		Couri	er?	E	JPS	1	iHL	Fe }e	dĒx	Lone		

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:	Basin Enu.	Plains
Date/ Time:	11.3.09 10):22
Lab ID # :	35075	1
Initials:	AL	

Sample Receipt Checklist

				llent Initia
Temperature of container/ cooler?	(Yes)	No	1.\ °C	
Shipping container in good condition?	(Yes)	No	177.0	
Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	_
Custody Seals intact on sample bottles/ container?		No	Not Present	
Chain of Custody present?	(les	No		
Sample instructions complete of Chain of Custody?	Yes	No		
	(es)	No		
Chain of Custody agrees with sample label(s)?	(Yéş)	No	ID written on Cont./ Lid	
Container label(s) legible and intact?	Yes	No	Not Applicable	
Sample matrix/ properties agree with Chain of Custody?	(Peg)	No		
	(Yes)	No		
Samples in proper container/ bottle?	(Yès)	No	See Below	
Samples properly preserved?	(Yes	No	See Below	
Sample bottles intact?	Yes	No		
Preservations documented on Chain of Custody?	Yeş	No		
Containers documented on Chain of Custody?	Yes	No		
Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
All samples received within sufficient hold time?	(es)	No	See Below	
Subcontract of sample(s)?	Yes	No	Not Applicable	
		No		
	mentation		Date/ Time:	
arding:				
	Chain of Custody present? Sample instructions complete of Chain of Custody? Chain of Custody signed when relinquished/ received? Chain of Custody agrees with sample label(s)? Container label(s) legible and intact? Sample matrix/ properties agree with Chain of Custody? Containers supplied by ELOT? Samples in proper container/ bottle? Samples properly preserved? Sample bottles intact? Preservations documented on Chain of Custody? Containers documented on Chain of Custody? Sufficient sample amount for indicated test(s)? All samples received within sufficient hold time? Subcontract of sample(s)? VOC samples have zero headspace? Variance Documented by:	Shipping container in good condition? Yes Custody Seals intact on shipping container/ cooler? Yes Custody Seals intact on sample bottles/ container? Yes Chain of Custody present? Yes Sample instructions complete of Chain of Custody? Yes Chain of Custody signed when relinquished/ received? Yes Chain of Custody agrees with sample label(s)? Yes Container label(s) legible and intact? Yes Sample matrix/ properties agree with Chain of Custody? Yes Container supplied by ELOT? Yes Samples in proper container/ bottle? Yes Sample bottles intact? Yes Preservations documented on Chain of Custody? Yes Containers documented on Chain of Custody? Yes Sufficient sample amount for indicated test(s)? Yes VOC samples have zero headspace? Yes VOC samples have zero headspace? Yes Voc samples have zero headspace? Yes	Shipping container in good condition? Yes No Custody Seals intact on shipping container/ cooler? Yes No Custody Seals intact on sample bottles/ container? Yes No Chain of Custody present? Yes No Sample instructions complete of Chain of Custody? Yes No Chain of Custody signed when relinquished/ received? Yes No Chain of Custody agrees with sample label(s)? Yes No Container label(s) legible and intact? Yes No Sample matrix/ properties agree with Chain of Custody? Yes No Containers supplied by ELOT? Yes No Samples in proper container/ bottle? Yes No Sample bottles intact? Yes No Sample bottles intact? Yes No Sample bottles intact? Yes No Sufficient sample amount for indicated test(s)? Yes No Subcontract of sample(s)? Yes No Subcontract of sample(s)? Yes No Subcontract of sample(s)? Yes No VOC samples have zero headspace? Yes <td< td=""><td>Temperature of container/ cooler? Yes No I.A. ° C Shipping container in good condition? Yes No Not Present Custody Seals intact on shipping container/ cooler? Yes No Not Present Custody Seals intact on sample bottles/ container? Yes No Not Present Chain of Custody present? Yes No Not Present Chain of Custody signed when relinquished/ received? Yes No Not Applicable Chain of Custody agrees with sample label(s)? Yes No Not Applicable Sample matrix/ properties agree with Chain of Custody? Yes No Not Applicable Sample in proper container/ bottle? Yes No See Below Samples in proper container/ bottle? Yes No See Below Samples properly preserved? Yes No See Below Samples no proper container of Custody? Yes No See Below Samples properly preserved? Yes No See Below Samples bottles intact? Yes No See Below Sufficient sample amount for indicated test(s)? No See B</td></td<>	Temperature of container/ cooler? Yes No I.A. ° C Shipping container in good condition? Yes No Not Present Custody Seals intact on shipping container/ cooler? Yes No Not Present Custody Seals intact on sample bottles/ container? Yes No Not Present Chain of Custody present? Yes No Not Present Chain of Custody signed when relinquished/ received? Yes No Not Applicable Chain of Custody agrees with sample label(s)? Yes No Not Applicable Sample matrix/ properties agree with Chain of Custody? Yes No Not Applicable Sample in proper container/ bottle? Yes No See Below Samples in proper container/ bottle? Yes No See Below Samples properly preserved? Yes No See Below Samples no proper container of Custody? Yes No See Below Samples properly preserved? Yes No See Below Samples bottles intact? Yes No See Below Sufficient sample amount for indicated test(s)? No See B

Corrective Action Taken:

Check all that Apply:

 See attached e-mail/ fax

Client understands and would like to proceed with analysis

Page 13 of 14

Cooling process had begun shortly after sampling event

~

Andrea Lam

From:"Curt D. Stanley" <cdstanley@basin-consulting.com>To:"Gracie Avalos" <gracie.avalos@xenco.com>; "Andrea Lam" <andrea.lam@xenco.com>Sent:Tuesday, November 03, 2009 2:09 PMSubject:EK Queen 6-Inch Sec 15 soil sample

Gracie / Andrea,

Please run the soil sample I brought in this morning (11/3/09). The project name is EK Queen 6-Inch Sec 15. The SRS number (needs to be added to the COC) is 2009-236. <u>Please run for TPH (8015M)</u> only. Do not run for BTEX as shown on the COC.

Thanks, Curt Stanley

Analytical Report 351529

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

EK Queen 6" Sec 15

2009-236

12-NOV-09





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-08-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 (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240), South Carolina(96031001), Louisiana(04154), Georgia(917)



12-NOV-09



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

Reference: XENCO Report No: **351529 EK Queen 6'' Sec 15** Project Address: Lea Co., 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 351529. 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. 351529 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 351529

PLAINS ALL AMERICAN EH&S, Midland, TX

EK Queen 6" Sec 15

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
WSW	S	Nov-06-09 11:30		351529-001
NSW	S	Nov-06-09 11:40		351529-002
ESW	S	Nov-06-09 12:00		351529-003
SSW	S	Nov-06-09 12:15		351529-004
Floor	S	Nov-06-09 12:30		351529-005

CASE NARRATIVE



Client Name: PLAINS ALL AMERICAN EH&S Project Name: EK Queen 6" Sec 15

 Project ID:
 2009-236

 Work Order Number:
 351529

Report Date: 12-NOV-09 Date Received: 11/06/2009

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-780907 Percent Moisture None

Batch: LBA-780910 Percent Moisture None

Batch: LBA-781121 TPH by SW8015 Mod SW8015MOD NM

Batch 781121, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 351529-005.

Batch: LBA-781159 BTEX by EPA 8021 SW8021BM

Batch 781159, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 351529-004, -003, -005, -001, -002. The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits



Project Id: 2009-236 Contact: Jason Henry Project Location: Lea Co, NM

Certificate of Analysis Summary 351529 PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: EK Queen 6" Sec 15



Date Received in Lab: Fri Nov-06-09 04:45 pm

Report Date: 12-NOV-09

								Project Ma	nager:	Brent Barron,	II	
	Lab Id:	351529-0	001	351529-0	02	351529-	003	351529-(004	351529-0	05	
Analysis Requested	Field Id:	WSW		NSW		ESW	/	SSW		Floor	ļ	
Analysis Requested	Depth:											
	Matrix:	SOIL		SOIL		SOII	_	SOIL		SOIL		
	Sampled:	Nov-06-09	11.30	Nov-06-09	11:40	Nov-06-09	12:00	Nov-06-09	12:15	Nov-06-09	12:30	
BTEX by EPA 8021	Extracted:	Nov-10-09	15:30	Nov-10-09	15:30	Nov-10-09	15:30	Nov-10-09	15.30	Nov-10-09	15:30	· · · · · · · · · · · · · · · · · · ·
	Analyzed:	Nov-10-09	21:44	Nov-10-092	22:06	Nov-10-09	22:26	Nov-10-09	22:47	Nov-10-09	23:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Benzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	· · · · · · · · · · · · · · · · · · ·
Toluene		ND	0.0020	ND	0.0020	ND	0.0021	ND	0.0020	ND	0.0021	
Ethylbenzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	
m,p-Xylenes		ND	0.0020	ND	0.0020	ND	0.0021	ND	0.0020	ND	0.0021	
o-Xylene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	
Xylenes, Total		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	
Total BTEX		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	
Percent Moisture	Extracted:					,						
	Analyzed:	Nov-09-09	17:00	Nov-09-09	17:00	Nov-09-09	17:00	Nov-09-09	17.00	Nov-09-09	17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	
Percent Moisture		1.41	1 00	2 57	1 00	3.11	1.00	ND	1.00	2.81	1.00	
TPH by SW8015 Mod	Extracted:	Nov-09-09 12.30		Nov-09-09 12:30		Nov-09-09 12.30		Nov-09-09 12:30		Nov-09-09 12.30		
	Analyzed:	Nov-10-09	09:49	Nov-10-09	Nov-10-09 10:15 Nov-10-09 10:41		Nov-10-09 11:06		Nov-10-09 11.32			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
C6-C12 Gasoline Range Hydrocarbons		ND	15.2	ND	15.4	ND	15.5	ND	15.0	ND	15.4	
C12-C28 Diesel Range Hydrocarbons		ND	15.2	ND	15.4	ND	15.5	ND	15.0	48 2	15.4	
C28-C35 Oil Range Hydrocarbons		ND	15.2	ND	15.4	ND	15.5	ND	15.0	ND	15.4	
Total TPH		ND	15.2	ND	15.4	ND	15.5	ND	15.0	48.2	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 bast 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 involved for this work order unless otherwise agreed to in writing

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Brent Barron, II

Odessa Laboratory Manager

XENCO Laboratories



- 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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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 Lakcs, 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: EK Queen 6" Sec 15

ork Orders : 351529 Lab Batch #: 781159	Sample: 542848-1-BKS / B		h: 1 Matrix		(THE N	
Units: mg/kg BTE	Date Analyzed: 11/10/09 16:06	Amount Found	RROGATE RI True Amount	Recovery	Control Limits	Flags
	Analytes	[A]	(B)	%R D]	%R	
1,4-Difluorobenzene		0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	· · · · · · · · · · · · · · · · · · ·	0.0295	0.0300	98	80-120	
Lab Batch #: 781159	Sample: 542848-1-BSD / B	SD Bate	h: Matrix	:Solid		
Units: mg/kg	Date Analyzed: 11/10/09 16:27	SU	RROGATE R	ECOVERY	STUDY	
BTE	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1,4-Dıfluorobenzene	Analytes	0.0300	0.0300	100	80-120	_
4-Bromofluorobenzene		0.0303	0.0300	101	80-120	
	Sample: 542848-1-BLK / B	LK Bate	h: ¹ Matrix	:Solid		L
Units: mg/kg	Date Analyzed: 11/10/09 17:09	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021 Analytes		Amount Found [A]	True Amount [B]	Recovery %R {D}	Control Limits %R	Flage
1.4-Difluorobenzene		0.0267	0.0300	89	80-120	
4-Bromofluorobenzene		0.0292	0.0300	97	80-120	
Lab Batch #: 781159	Sample: 351529-001 / SMP	Batc	h: ¹ Matrix	:Soil		L
Units: mg/kg	Date Analyzed: 11/10/09 21:44	SURROGATE RECOVERY STUDY				
BTE	CX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1.4-Difluorobenzene	Analytes	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene		0.0209	0.0300	101	80-120	L
Lab Batch #: 781159	Sample: 351529-002 / SMP		h: ¹ Matrix	1		I
Units: mg/kg	Date Analyzed: 11/10/09 22:06		RROGATE R		STUDY	
BTE	CX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1.4-Difluorobenzene	2 x11 ul y tC 0	0.0271	0.0300	90	80-120	┣───
		1 0.04/1	1 0.0300	1 20	1 00-120	1

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Project Name: EK Queen 6" Sec 15

'ork Orders : 351529 Lab Batch #: 781159), Sample: 351529-003 / SMP	Bate		D: 2009-236 ;Soil		
Units: mg/kg	Date Analyzed: 11/10/09 22:26	SU	RROGATE R		STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes					
1,4-Difluorobenzene		0.0273	0.0300	91	80-120	
4-Bromofluorobenzene		0 0328	0.0300	109	80-120	
Lab Batch #: 781159	Sample: 351529-004 / SMP	Batel		-		
Units: mg/kg	Date Analyzed: 11/10/09 22:47	SU	RROGATE R	ECOVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0273	0.0300	91	80-120	
4-Bromofluorobenzene		0.0309	0.0300	103	80-120	
Lab Batch #: 781159	Sample: 351529-005 / SMP	Batcl	h: 1 Matrix	:Soil		
Units: mg/kg	Date Analyzed: 11/10/09 23:09		RROGATE R		STUDY	
BTE	EX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0268	0.0300	89	80-120	
4-Bromofluorobenzene		0.0317	0.0300	106	80-120	
Lab Batch #: 781159	Sample: 351048-001 S / MS	Batel	h: ¹ Matrix	:Soil	1	
Units: mg/kg	Date Analyzed: 11/11/09 00:34		RROGATE R		STUDY	
BTE	CX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	Analytes	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene		0.0290	0.0300	107	80-120	
					00-120	
Lab Batch #: 781159	Sample: 351048-001 SD / N		h: 1 Matrix RROGATE R		STUDY	
Units: mg/kg	Date Analyzed: 11/11/09 00:55				I	
BTE	X by EPA 8021	Amount Found	True Amount	Recovery %R	Control Limits %R	Flag
	Analytes	[A]	(B)			
1.4-Difluorobenzene	Analytes	[A] 0.0292	0.0300	[D] 97	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: EK Queen 6" Sec 15

/ork Orders : 351529 Lab Batch #: 781121), Sample: 542825-1-BKS / B	KS Bate	•	D: 2009-236		
Units: mg/kg	Date Analyzed: 11/10/09 08:30		RROGATE R		STUDY	
TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		109	99 8	109	70-135	
o-Terphenyl	·····	50.5	49 9	101	70-135	
Lab Batch #: 781121	Sample: 542825-1-BSD / B	SD Bate	h: ¹ Matrix	:Solid		
Units: mg/kg	Date Analyzed: 11/10/09 08:56	SU	RROGATE R	ECOVERY	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		115	100	115	70-135	
o-Terphenyl		53.7	50.0	107	70-135	
Lab Batch #: 781121	Sample: 542825-1-BLK / B	LK Bate	L			
Units: mg/kg	Date Analyzed: 11/10/09 09:23		RROGATE R		STUDY	
	by SW8015 Mod	Amount	True		Control	
	Analytes	Found [A]	Amount [B]	Recovery %R [D]	Limits %R	Flags
1-Chlorooctane		92.1	100	92	70-135	
o-Terphenyl		57.4	50.0	115	70-135	
Lab Batch #: 781121	Sample: 351529-001 / SMF	Batc	:h: ¹ Matrix	:Soil		
Units: mg/kg	Date Analyzed: 11/10/09 09:49	SU	RROGATE R	ECOVERY	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctanc		85.4	99.7	86	70-135	
o-Terphenyl		51.2	49.9	103	70-135	
L ab Batch #: 781121	Sample: 351529-002 / SMF	Batc	h: Matrix	:Soil	•••••••••••••••••••••••••••••••••••••••	
Units: mg/kg	Date Analyzed: 11/10/09 10:15	SU	RROGATE R	ECOVERY	STUDY	
TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
	v				70-135	
I-Chlorooctane	~	84.5	99.8	85	1 /0-135 1	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: EK Queen 6" Sec 15

'ork Orders : 351529 Lab Batch #: 781121	, Sample: 351529-003 / SMP	Batc		D: 2009-236		
Units: mg/kg	Date Analyzed: 11/10/09 10:41		RROGATE R		STUDY	
	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		88 4	100	88	70-135	
o-Terphenyl		54 2	50.0	108	70-135	
Lab Batch #: 781121	Sample: 351529-004 / SMP	Bate	h: ¹ Matrix	:Soil		
Units: mg/kg	Date Analyzed: 11/10/09 11:06	SU	RROGATE R	ECOVERY	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		87.3	100	87	70-135	
o-Terphenyl	····	50.3	50.0	101	70-135	
Lab Batch #: 781121	Sample: 351529-005 / SMP	Bate	h: ¹ Matrix	r. Soil	L	
Units: mg/kg	Date Analyzed: 11/10/09 11:32		RROGATE R		STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	Analytes	109	100	109	70-135	
o-Terphenyl		67.8	50.0	109	70-135	*
Lab Batch #: 781121	Sample: 351529-001 S / MS	Batc			70-135	
Units: mg/kg	Date Analyzed: 11/10/09 16:41		RROGATE R		STUDY	
	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		109	100	109	70-135	
o-Terphenyl		50.4	50.0	101	70-135	
Lab Batch #: 781121	Sample: 351529-001 SD / M	SD Batel	h: 1 Matrix	:Soil		
Units: mg/kg	Date Analyzed: 11/10/09 17:07	SU	RROGATE R	ECOVERY S	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctanc	-	111	100	111	70-135	
o-Terphenyl		51.1	50.0	102	70-135	

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

*** Poor recoveries due to dilution





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By the Mar - Salting the man

Project Name: EK Queen 6" Sec 15

W. Switt . St.

Work Order #: 351529 Analyst: ASA	D	ate Prenar	red: 11/10/200)9				ject ID: 2	2009-236		
	12848-1-BKS	-	h #: 1					Matrix: S			
Units: mg/kg		BLAN	K /BLANK S	SPIKE / F	BLANK S	PIKE DUPI	LICATE	RECOVE	ERY STUD	Y	
BTEX by EPA 8021	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes				· · ·	[E]						<u> </u>
Benzene	ND	0 1000	0.0969	97	0.1	0.0989	99	2	70-130	35	<u> </u>
Tolucne	ND	0.1000	0.0971	97	0.1	0.0989	99	2	70-130	35	<u> </u>
Ethylbenzenc	ND	0.1000	0.0962	96	01	0.0991	99	3	71-129	35	
m,p-Xylenes	ND	0.2000	0.2098	105	0.2	0.2164	108	3	70-135	35	
o-Xylene	ND	0.1000	0.1015	102	0.1	0.1049	105	3	71-133	35	
Analyst: BEV	D	ate Prepar	red: 11/09/200)9			Date A	nalyzed: 1	1/10/2009		
Lab Batch ID: 781121 Sample: 542	2825-1-BKS	Bate!	h #: 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K /BLANK S	PIKE / F	3LANK S	PIKE DUPI	LICATE	RECOVE	ERY STUD	Y	
TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	998	931	93	1000	954	95	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	884	89	1000	765	77	14	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: EK Queen 6" Sec 15



Work Order #: 351529						Project II	D: 2009-2	36			
Lab Batch ID: 781159 Date Analyzed: 11/11/2009	QC- Sample ID: Date Prepared:				tch #: alyst:	1 Matrie ASA	x: Soil				
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
BTEX by EPA 8021	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]	result [1]	[G]			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Benzene	ND	0.1107	0.0517	47	0.1107	0.0586	53	13	70-130	35	x
Toluene	ND	0.1107	0.0544	49	0.1107	0.0619	56	13	70-130	35	X
Ethylbenzene	ND	0.1107	0.0540	49	0.1107	0.0619	56	14	71-129	35	x
m,p-Xylenes	ND	0.2214	0.1161	52	0.2214	0.1340	61	14	70-135	35	x
o-Xylene	ND	0.1107	0.0562	51	0.1107	0.0647	58	14	71-133	35	X
Lab Batch ID: 781121	QC- Sample ID:				tch #:	1 Matrix	k: Soil				
Date Analyzed: 11/10/2009	Date Prepared:	11/09/2	009	An	alyst:	BEV					
Reporting Units: mg/kg		Μ	IATRIX SPIK	E7 MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH by SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
C6-C12 Gasoline Range Hydrocarbons	ND	1010	936	93	1010	956	95	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1010	958	95	1010	765	76	22	70-135	35	

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

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

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





Project Name: EK Queen 6" Sec 15

Work Order #: 351529

Lab Batch #: 780907			Project I	D: ²⁰⁰⁹⁻²³⁶	5
Date Analyzed: 11/09/2009 Date Prepa	red: 11/09/2009	Anal	yst:LATC	OR	
QC- Sample ID: 351515-001 D Bate	: h #: 1	Mat	rix: Solid		
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Percent Moisture	ND	ND	NC	20	
Lab Batch #: 780910					
Date Analyzed: 11/09/2009 Date Prepa	red: 11/09/2009	Ana	lyst:LATC	OR	
QC- Sample ID: 351529-004 D Bate	: h #: 1	Mat	rix: Soil		
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
		1	1	1	
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag

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

Xenco Laboratories

STATES OF STREET, STRE

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

							UNAI		000			UN	U AI									
The Environmental Lab of Texas					12600 Odess												132-5 132-5					
Project Manager:	<u>>ta</u>	NEY								_	Ргојес	et Na	me:	E	Ξ.(C.	Qı	<u>E6</u>	Ξr	<u>مار</u>	1	<u>Se</u>	<u>c/s</u>
Company Name RASIN	Ena	IROWN	ENTA							_	P	roje	ct #:	Ê	ω	$\dot{\mathcal{Q}}$	oo	2	3	6		
Company Address: 200		inethe		_							Proj	ect l	Loc:	7	E	4 (Co	s	Nr	И		
City/State/Zip:)		8826	D						•	-		0#:	f	ZA	Ā		_(+++	EN	p2	1
Telephone No: 575-44	1-2		Fax No:	<u></u>						Ret	oort Fo	hima	t:	⊡ s	tandar	d] TRF		_	NPD	7
Sampler Signature:		SReyold								,			_	_ •		-	-	,				20
(lab üse only)		and and and	<u></u>				•				F		_		_	alyze	For:]
11.2 · 그런 11.2 · 제가 12.2 · 제가 12.2 · 제가 12.4 · 제품 등 등 문제				_			_				F			TCL TOTA	the second s	+	\pm	1	11			24
ORDER # 351521		···· _ ···			Pres	ervatio T	n&#of</td><td>Contain</td><td>ers</td><td>Matr</td><td>X 8015B</td><td></td><td></td><td></td><td>å</td><td>Τ</td><td>260</td><td>] </td><td></td><td></td><td></td><td>\$ </td></tr><tr><th>FIELD CODE OI WSW DI NSW DJ NSW DJ ESW OY SSW OS F-COOR</th><th>Beginning Depth</th><th>Date Sampled</th><th>Time sampled</th><th>- Total #. of Containers</th><th>HNO₃</th><th>HCI HCI</th><th>Hoen Nach</th><th>Nes5203</th><th>Other (Specify)</th><th></th><th>NP=Non-Potable Specify Office TPH: 418.10015M</th><th>TX 1005 TX 10</th><th>Catrons (Ca, Mg, Na, K)</th><th>Anions (Cl. SO4, Alkalinity) SAD JECE / CEC</th><th>Metals As Ag Be Cd Cr Pb Hg Se</th><th>Volatiles</th><th>BITEX002018/50300r BITEX 8260</th><th>RCI</th><th>KORM</th><th></th><th></th><th>KUSH TAT (Pre-schedure) :</th></tr><tr><td></td><td>++-</td><td></td><td> </td><td>┽╌╉</td><td>+</td><td></td><td>-</td><td></td><td>+</td><td></td><td></td><td>†</td><td>\vdash</td><td></td><td>┼╀</td><td>-+-</td><td>+-</td><td>┢╌╋</td><td>-+-</td><td>╋</td><td>-†</td><td>+-1</td></tr><tr><td></td><td>+-+-</td><td></td><td></td><td>┼╂</td><td></td><td></td><td></td><td></td><td>\mathbf{T}</td><td></td><td></td><td></td><td></td><td>+</td><td>++</td><td>+-</td><td>+</td><td>$\uparrow \uparrow$</td><td>+</td><td>+-1</td><td>-†</td><td>+-1</td></tr><tr><td>Special Instructions:</td><td></td><td></td><td><u></u></td><td></td><td></td><td></td><td></td><td><u> </u></td><td></td><td></td><td></td><td>-</td><td>Lab</td><td>orato</td><td>y Con</td><td>when</td><td>19: </td><td></td><td>I</td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>VOC</td><td>ls Fre</td><td>e of H</td><td>eadsp</td><td>sice?</td><td></td><td></td><td>8</td><td></td><td></td></tr><tr><td>tellhquisflet by</td><td>Time</td><td>Received by:</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Da</td><td>te</td><td>Tim</td><td>ė</td><td>6 PT</td><td>ody s</td><td>eals o</td><td>n con</td><td>tainer</td><td>A5#</td><td></td><td>8</td><td>1.1</td><td>and a state of the state of the</td></tr><tr><td>telinquished by Date</td><td>Time</td><td>Received by:</td><td></td><td></td><td><u></u>=</td><td></td><td></td><td></td><td>Da</td><td>te</td><td>Tim</td><td></td><td>San</td><td>ple H v Sar</td><td>and D ander/C</td><td>eliven Rem F</td><td>ed Rep. 7</td><td></td><td></td><td>S</td><td></td><td></td></tr><tr><td>Relinquished by. Date</td><td>Time</td><td>Received by EL</td><td>la f</td><td>m</td><td></td><td></td><td></td><td>-11</td><td>Da (A</td><td>10 04</td><td>The 10-1</td><td></td><td>Ten</td><td>d D perat</td><td>nor? L cala Re-Up</td><td>55 on Re</td><td>scelpi</td><td>i:</td><td>Ц</td><td>.0</td><td>1 .</td><td>C</td></tr></tbody></table>															

Final Ver. 1.000

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:	Basin Env. / Plains
Date/ Time:	11.6.09 16:45
Lab ID # :	351529
Initials:	AL_

Sample Receipt Checklist

				C	lient Initials
#1	Temperature of container/ cooler?	(Yes)	No	4.0°C	
#2	Shipping container in good condition?	(Yes)	No		_
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	< Not Present	
#4	Custody Seals intact on sample bottles/ container?	(es)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(res)	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(res)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	res	No		
#11	Containers supplied by ELOT?	(es)	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Ye)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	(Yes) No	Not Applicable	

Variance Documentation

Contact:	<u></u>	Contacted by:	Date/ Time:	<u></u>
Regarding:				
Corrective A	ction Taken:			
	<u></u>			
			· · · · · · · · · · · · · · · · · · ·	

Check all that Apply:

See attached e-mail/ fax

Client understands and would like to proceed with analysis

Cooling process had begun shortly after sampling event

Analytical Report 350994

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

EK Queen 6" Sec. 15

2009-236

17-NOV-09





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-08-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 (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240), South Carolina(96031001), Louisiana(04154), Georgia(917)



17-NOV-09



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

Reference: XENCO Report No: **350994 EK Queen 6'' Sec. 15** 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 350994. 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. 350994 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 350994

PLAINS ALL AMERICAN EH&S, Midland, TX

EK Queen 6" Sec. 15

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile Baseline	S	Nov-04-09 13:20		350994-001

CASE NARRATIVE



Client Name: PLAINS ALL AMERICAN EH&S Project Name: EK Queen 6" Sec. 15

 Project ID:
 2009-236

 Work Order Number:
 350994

Report Date: 17-NOV-09 Date Received: 11/05/2009

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-780678 Percent Moisture None

Batch: LBA-780695 TPH by SW8015 Mod SW8015MOD_NM

Batch 780695, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike. Samples affected are: 350994-001. The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

Batch: LBA-781996 BTEX by EPA 8021 SW8021BM

Batch 781996, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 350994-001. The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 781996, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; Data confirmed by re-analysis Samples affected are: 352148-001 S. 350994-001



Project Id: 2009-236 Contact: Jason Henry Project Location: Lea County, NM

Certificate of Analysis Summary 350994 PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: EK Queen 6" Sec. 15



Date Received in Lab: Thu Nov-05-09 08:39 am

Report Date: 17-NOV-09

Project Manager: Brent Barron, II

	Lab Id:	350994-001			
Analysis Paguastad	Field Id:	Stockpile Baseline			
Analysis Requested	Depth:				
	Matrix:	SOIL			
	Sampled:	Nov-04-09 13.20			
BTEX by EPA 8021	Extracted:	Nov-16-09 16:00			
	Analyzed:	Nov-16-09 21:12			
	Units/RL:	mg/kg RL			
Benzene		ND 0.0010			
Toluene		0.0031 0.0021			
Ethylbenzene		0 0069 0.0010			
m,p-Xylenes		0.0646 0.0021			
o-Xylene		0.0973 0.0010			
Xylenes, Total		0.1619 0.0010			
Total BTEX		0.1719 0.0010			
Percent Moisture	Extracted:				
	Analyzed:	Nov-05-09 17:00			
	Units/RL:	% RL			
Percent Moisture		4.38 1.00			
TPH by SW8015 Mod	Extracted:	Nov-06-09 10:45			
	Analyzed:	Nov-06-09 17:17			
	Units/RL:	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		189 15.6			
C12-C28 Diesel Range Hydrocarbons		777 15.6			
C28-C35 Oil Range Hydrocarbons		BRL 15.6			
Total TPH		966 15 6			

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 involved for this work order unless otherwise agreed to in writing

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Brent Barron, II

Odessa Laboratory Manager





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

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



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Project Name: EK Queen 6" Sec. 15

/ork Orders : 350994 Lab Batch #: 781996	, Sample: 543363-1-BKS/B	KS Batcl		D: 2009-236 : Solid		
Units: mg/kg	Date Analyzed: 11/16/09 16:58		RROGATE RI		STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0295	0.0300	98	80-120	
4-Bromofluorobenzene		0.0294	0.0300	98	80-120	
Lab Batch #: 781996	Sample: 543363-1-BSD / B	SD Batel	h: 1 Matrix	:Solid	•	
Units: mg/kg	Date Analyzed: 11/16/09 17:19	SU	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0299	0.0300	100	80-120	
4-Bromofluorobenzene		0.0307	0 0300	102	80-120	
Lab Batch #: 781996	Sample: 543363-1-BLK / B	LK Batel	h: 1 Matrix	:Solid	1	
Units: mg/kg	Date Analyzed: 11/16/09 18:02	SU	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0273	0.0300	91	80-120	
4-Bromofluorobenzene		0.0280	0.0300	93	80-120	
Lab Batch #: 781996	Sample: 350994-001 / SMP	Batc	h: 1 Matrix	:Soil		
Units: mg/kg	Date Analyzed: 11/16/09 21:12	SU	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0256	0.0300	85	80-120 80-120	**
4-Bromofluorobenzene			0.0300	L	80-120	**
Lab Batch #: 781996	Sample: 352148-001 S / MS		h: 1 Matrix RROGATE RI		STUDY	
Units: mg/kg BTE	Date Analyzed: 11/16/09 21:54 X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	•	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene		0.0394	0.0300	131	80-120	**

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Project Name: EK Queen 6" Sec. 15

ork Orders : 350994 Lab Batch #: 781996	Sample: 352148-001 SD / N	ASD Batch	•	D: 2009-236 :Soil		
Units: mg/kg	Date Analyzed: 11/16/09 22:15	SUI	RROGATE R	ECOVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1,4-Difluorobenzene	Analytes	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene		0.0309	0.0300	103	80-120	
Lab Batch #: 780695	Sample: 542589-1-BKS / B	KS Batel	n: 1 Matrix	: Solid		
Units: mg/kg	Date Analyzed: 11/06/09 15:10		RROGATE R		STUDY	
	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1-Chlorooctane	Analytes	114	99.8	114	70-135	
o-Terphenyl		46.7	49.9	94	70-135	
Lab Batch #: 780695	Sample: 542589-1-BSD / B	SD Batch	n: ¹ Matrix	:Solid	I	1
Units: mg/kg	Date Analyzed: 11/06/09 15:36		RROGATE R		STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
I-Chlorooctane		114	99.6	114	70-135	
o-Terphenyl	· · · · · · · ·	45.0	49.8	90	70-135	
Lab Batch #: 780695	Sample: 542589-1-BLK / B	LK Batch	n: ¹ Matrix	:Solid	F	
Units: mg/kg	Date Analyzed: 11/06/09 16:02	SUI	RROGATE R	ECOVERY	STUDY	
ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flag
	Analytes			[D]		
I-Chlorooctanc o-Terphenyl		93.5 50.0	100	94	70-135	
	0 1 250004 001 / 010			<u> </u>	10-135	l
Lab Batch #: 780695	Sample: 350994-001 / SMP		n: 1 Matrix		STUDV	
Units: mg/kg	Date Analyzed: 11/06/09 17:17	l			1	r
TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1-Chlorooctanc	2 x n a 1 y t C 3	99.5	99.5	100	70-135	
		0.0	,,,,	1 100	1 10-100	I

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

*** Poor recoveries due to dilution

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

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Project Name: EK Queen 6" Sec. 15

ork Orders : 350994 Lab Batch #: 780695 Units: mg/kg	, Sample: 351052-001 S / M Date Analyzed: 11/07/09 00:23		•		STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		115	99.7	115	70-135	
o-Terphenyl	· · · · · · · · · · · · · · · · ·	48 2	49.9	97	70-135	
Lab Batch #: 780695	Sample: 351052-001 SD / N	ASD Bate	h: ¹ Matrix	Solid		
Units: mg/kg	Date Analyzed: 11/07/09 00:50	SU	RROGATE R	ECOVERY	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		117	99.9	117	70-135	
o-Terphenyl		48.7	50.0	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.

3





Project Name: EK Queen 6" Sec. 15

Work Order #: 350994 Analyst: ASA	n	ata Branav	ed: 11/16/200	10				ject ID: 2	009-236 1/16/2009		
Lab Batch ID: 781996 Sample: 543363-1-E		-	h#: 1	,,			Dute A	Matrix: S			
Units: mg/kg		BLAN	K /BLANK S	SPIKE / E	BLANK S	PIKE DUPI	LICATE	RECOVI	RY STUD	Y	
BTEX by EPA 8021	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]	[C]	[D]	[E]	Result [F]	[G]				
Benzene	ND	0.1000	0.0978	98	0.1	0.0958	96	2	70-130	35	
Toluenc	ND	0.1000	0.0981	98	01	0.0959	96	2	70-130	35	
Ethylbenzene	ND	0.1000	0.0969	97	0,1	0.0953	95	2	71-129	35	
m,p-Xylenes	ND	0.2000	0.2108	105	0.2	0.2074	104	2	70-135	35	
o-Xylene	ND	0.1000	0.1022	102	0.1	0.1021	102	0	71-133	35	
Analyst: BEV	D	ate Prepar	ed: 11/06/200)9			Date A	nalyzed: 1	1/06/2009		
Lab Batch ID: 780695 Sample: 542589-1-E	BKS	Batc	h #: 1					Matrix: S	olid		
Units: mg/kg		BLAN	K /BLANK S	SPIKE / E	BLANK S	PIKE DUPI	LICATE	RECOVE	RY STUD	Ŷ	
TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.0	998	967	97	996	976	98	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	998	984	99	996	928	93	6	70-135	35	

Relative Percent Dıfference 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: EK Queen 6" Sec. 15



Work Order #: 350994						Project II): 2009-2	36			
Lab Batch ID: 781996 Date Analyzed: 11/16/2009	QC- Sample ID: Date Prepared:	11/16/2	009	An	•	l Matrix ASA					
Reporting Units: mg/kg		Μ	ATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY S	STUDY		
BTEX by EPA 8021	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Benzene	ND	0.1048	0.0513	49	0.1048	0.0629	60	20	70-130	35	x
Toluene	ND	0.1048	0.0533	51	0.1048	0.0660	63	21	70-130	35	x
Ethylbenzene	ND	0.1048	0.0524	50	0.1048	0.0647	62	21	71-129	35	X
m,p-Xylenes	ND	0.2097	0.1097	52	0.2097	0.1373	65	22	70-135	35	X
o-Xylene	ND	0.1048	0.0572	55	0.1048	0.0664	63	15	71-133	35	x
Lab Batch ID: 780695 Date Analyzed: 11/07/2009	QC- Sample ID: Date Prepared:				tch #: alyst:	1 Matri BEV	k: Solid				
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
TPH by SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]		 		
C6-C12 Gasoline Range Hydrocarbons	<25.0	997	996	100	999	1020	102	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	53.2	997	743	69	999	756	70	2	70-135	35	x

Matnx Spike Percent Recovery $[D] = 100^{\circ}(C-A)/B$ Relative Percent Difference RPD = $200^{\circ}[(C-F)/(C+F)]$ Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

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



Sample Duplicate Recovery



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Project Name: EK Queen 6" Sec. 15

Work Order #: 350994

Lab Batch #: 780678 Date Analyzed: 11/05/2009 QC- Sample 1D: 350993-001 D Reporting Units: %	Date Prepared: 11/05/200 Batch #: 1 SAMPLE	9 Ana	lyst: WRU rix: Soil		
Percent Moisture	Parent Sample Result [A]	1	RPD	Control Limits %RPD	Flag
Analyte Percent Moisture	5 40	5.24	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

Env	vironment	al Lab of T	exa	as							Vest	1-20	(<i>IN O</i>) Easi 79764	t	บรา	roD	Y RE	:CC	ORC) AN	ID A	Ph	one	: 43	REQ 2-56 2-56	3-1	800				
	Project Manager:	Camille Bryant				<u>.</u>	;;;										Pro	le ct	Nar	ne:	EK (Que	en (5 " 5	Sec.	15					
	Company Name	Basin Environmenatal	Consuit	ing, LL	с				-				<u>,</u>					Pro	jec	t#:	2009	9-23	6			_					
	Company Address:	P.O. Box 381															P	roje	ct L	oc: [Lea (Coun	ty, M	IM							
	City/State/Zip:	Lovington, NM 88260				-													PC)#:_	PAA	J. H	enrj	<u> </u>							
	Telephone No: Sampler Signature:	(575) 605-7210	7	0,		Fax No: e-mail:	-		5) 396				1-COI				iport	For	mat	. [X s	tand	ard			TRF	RP	[PDES	;
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LAB # (leb use only)	FIE	D CODE le Baseline	Beginning Depth	Ending Depth	Date Sampled 11/4/09	9 1320		I OLAI #. O' CONLE	1000 · C ·	°CNL					1	C CW - Croundwater 5-Soluson	NP = Non-Potable Specify Oth	481	TPH. TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl. SO4, Autalinty)	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Seminotables	BTEX 80218/5030 or BTEX 8280	RCI	N.O.R.M			RUSH TAT (Pro-Schodule) 24, 48.	X Standard TAT 4 DAY
Reiniuist	the Acr	h II/Fa	208		Received by:										Date			īmə		VOC Cust	s Fre ody s	e of solit eals	Hea on c	lspa fai onta	ce? iner((9) (8)		S A	<u>۽</u>	N N N	зй
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Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Basin Plains
1105109 8:35
350994
QQNUA

Sample Receipt Checklist

				Client Init
¥1	Temperature of container/ cooler?	(Yes)	No	4.6 °C
# 2	Shipping container in good condition?	Ves-	No	
# 3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present
# 5	Chain of Custody present?	Xes)	No	
¥6	Sample instructions complete of Chain of Custody?	Yes	No	
# 7	Chain of Custody signed when relinquished/ received?	Yes	No	
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	Yes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No	
#11	Containers supplied by ELOT?	(Yes)	No	
#12	Samples in proper container/ bottle?	(Yes)	No	See Below
#13	Samples property preserved?	(Yes)	No	See Below
#14	Sample bottles intact?	(Yes)	No	
#15	Preservations documented on Chain of Custody?	(Yes)	No	
#16	Containers documented on Chain of Custody?	Yes	No	
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below
#18	All samples received within sufficient hold time?	Yes	No	See Below
#19	Subcontract of sample(s)?	Yes	No	Not Applicable
#20	VOC samples have zero headspace?	Yes	No	Not Applicable

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

Check all that Apply:

•-;

ι,

See attached e-mail/ fax

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event Jeanne Fitch
From: Curt D Stanley [cstanley@basinenv.com]
Sent: Wednesday, November 11, 2009 4;19 PM
To: Jeanne Fitch
Subject: Re: WO# 350994 EK Queen 6" Sec 15
Jeanne

Please run BTEX by 8021b on this sample.

Thanks, Curt

> ----- Original Message ----From: Jeanne Fitch To: Canulle J. Bryant', 'Curt D. Stanley' Cc: Jhenry@paalp.com Sent: Tuesday, November 10, 2009 7:47 AM Subject: Re: WO# 350994 EK Queen 6" Sec. 15

Thank You,

Jeanne Fitch

Environmental Lab of Texas a Xenco Company 12600 West I-20 East Odessa, TX 79765 (432) 563-1800 ext, 1701

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11/11/2009

Analytical Report 360731

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

E.K. Queen 6" Sec 15

2009-236

04-FEB-10





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-08-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 (LAO00308), USDA (S-44102)

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04-FEB-10



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

Reference: XENCO Report No: 360731 E.K. Queen 6" Sec 15 Project Address: Lea Co., 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 360731. 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. 360731 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 360731



PLAINS ALL AMERICAN EH&S, Midland, TX

E.K. Queen 6" Sec 15

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1	S	Feb-01-10 14:30		360731-001

CASE NARRATIVE



Client Name: PLAINS ALL AMERICAN EH&S

Project Name: E.K. Queen 6" Sec 15

 Project ID:
 2009-236

 Work Order Number:
 360731

Report Date: 04-FEB-10 Date Received: 02/02/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-792080 TPH by SW8015 Mod SW8015MOD NM

Batch 792080, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 360731-001. The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

SW8015MOD_NM

Batch 792080, C28-C35 Oil Range Hydrocarbons RPD was outside QC limits. Samples affected are: 360731-001

Batch: LBA-792089 Percent Moisture None

Batch: LBA-792290 BTEX by EPA 8021 SW8021BM

Batch 792290, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 360731-001.

SW8021BM

Batch 792290, Benzene, Toluene, Ethylbenzene, m,p-Xylenes, o-Xylene RPD is outside the QC limit. This is most likely due to sample non-homogeneity. Samples affected are: 360731-001.



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Project Id: 2009-236 Contact: Jason Henry Project Location: Lea Co., NM

Certificate of Analysis Summary 360731 PLAINS ALL AMERICAN EH&S, Midland, TX





Date Received in Lab: Tue Feb-02-10 10:30 am

Report Date: 04-FEB-10

Project Manager: Brent Barron, II

	Lab Id:	360731-001			
Analysis Requested	Field Id:	SP-1			
Analysis Kequestea	Depth:				
,	Matrix:	SOIL			
	Sampled:	Feb-01-10 14:30			
BTEX by EPA 8021	Extracted:	Feb-03-10 13:45			
	Analyzed:	Feb-03-10 16:09			
	Units/RL:	mg/kg RL			
Benzene		ND 0.0011			
Toluene		ND 0.0022			
Ethylbenzene		0.0086 0.0011			
m,p-Xylenes		ND 0.0022			
o-Xylene		0.0047 0.0011			
Xylenes, Total		0.0047 0.0011			
Total BTEX		0.0133 0.0011			
Percent Moisture	Extracted:				
	Analyzed:	Feb-02-10 17:00			
	Units/RL:	% RL			
Percent Moisture		10.4 1.00			
TPH by SW8015 Mod	Extracted:	Feb-02-10 10:45			
	Analyzed:	Feb-02-10 18:06			
	Units/RL:	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		21.1 16.7			
C12-C28 Diesel Range Hydrocarbons		228 16.7			
C28-C35 Oil Range Hydrocarbons		19.2 16.7			
Total TPH		268 16.7			l

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 hability 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





- 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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Final Ver. 1.000



Project Name: E.K. Queen 6" Sec 15

/ork Orders : 360731 Lab Batch #: 792290	, Sample: 549319-1-BKS / B	KS Batc	•	D: 2009-236		
Units: mg/kg	Date Analyzed: 02/03/10 14:14		RROGATE R	-	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0308	0.0300	103	80-120	
4-Bromofluorobenzene		0.0297	0.0300	99	80-120	
Lab Batch #: 792290	Sample: 549319-1-BSD / B	SD Batc	h: l Matrix	:Solid		
Units: mg/kg	Date Analyzed: 02/03/10 14:37	SU	RROGATE R	ECOVERY S	STUDY	
BTE	X by EPA 8021	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	Analytes	0.0212	0.0200		00.120	
4-Bromofluorobenzene	······	0.0312	0.0300	104 98	80-120 80-120	
				1	80-120	
Lab Batch #: 792290	Sample: 549319-1-BLK / B					
Units: mg/kg	Date Analyzed: 02/03/10 15:46	50	RROGATE R	ECOVERY		
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	7 mary (CS	0.0264	0.0300	88	80-120	
4-Bromofluorobenzene		0.0313	0.0300	104	80-120	
	0 4 260721 001 / SMD			1	00120	
Lab Batch #: 792290	Sample: 360731-001 / SMP		h: 1 Matrix		STUDY	
Units: mg/kg	Date Analyzed: 02/03/10 16:09	50	RROGATE R			
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0248	0.0300	83	80-120	
4-Bromofluorobenzene		0.0381	0 0300	127	80-120	*
Lab Batch #: 792290	Sample: 360365-001 D / M	D Batc	h: Matrix	:Soil		
Units: mg/kg	Date Analyzed: 02/03/10 18:50	SU	RROGATE R	ECOVERY	STUDY	
BTE	X by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R {D}	Control Limits %R	Flags
1,4-Difluorobenzene		0 0252	0.0300	84	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Project Name: E.K. Queen 6" Sec 15

/ork Orders : 360731 Lab Batch #: 792080	, Sample: 549231-1-BKS / B	KS Batc	•	D: 2009-236		
Units: mg/kg	Date Analyzed: 02/02/10 14:57		RROGATE R		STUDY	
TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		94.7	99.8	95	70-135	
o-Terphenyl		45.2	49.9	91	70-135	
Lab Batch #: 792080	Sample: 549231-1-BSD / B					
Units: mg/kg	Date Analyzed: 02/02/10 15:24	SU	RROGATE R	ECOVERY	STUDY	
TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane		97.1	99.7	97	70-135	
o-Terphenyl	<u></u>	45.5	49.9	91	70-135	
Lab Batch #: 792080	Sample: 549231-1-BLK / B	LK Bate	h: 1 Matrix	Solid		<u> </u>
Units: mg/kg	Date Analyzed: 02/02/10 15:51		RROGATE R		STUDY	
TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		86.1	100	86	70-135	
o-Terphenyl		49.2	50.0	98	70-135	
Lab Batch #: 792080	Sample: 360731-001 / SMP	Batc	h: 1 Matrix	:Soil		
Units: mg/kg	Date Analyzed: 02/02/10 18:06	SU	RROGATE R	ECOVERY	STUDY	
TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		84.4	99.8	85	70-135	
o-Terphenyl		48.5	49.9	97	70-135	
Lab Batch #: 792080	Sample: 360731-001 S / MS	Batel	h: ¹ Matrix	: Soil	1	
Units: mg/kg	Date Analyzed: 02/03/10 11:46		RROGATE R		STUDY	
ТРН І	oy SW8015 Mod Analytes	Amount - Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		96.8	100	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: E.K. Queen 6" Sec 15

Work Orders : 360731 Lab Batch #: 792080	, Sample: 360731-001 SD / N		h: 1 Matri											
Units: mg/kg	Date Analyzed: 02/03/10 12:12	SURROGATE RECOVERY STUDY												
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
I-Chlorooctane		97.0	99.6	97	70-135									
o-Terphenyl		44.5	49.8	89	70-135									

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

*** Poor recoveries due to dilution





BS / BSD Recoveries

Project Name: E.K. Queen 6" Sec 15

Work Order #: 360731 Analyst: ASA	D	Project ID: 2009-236 Date Prepared: 02/03/2010 Date Analyzed: 02/03/2010												
	549319-1-BKS	-	h #: 1					Matrix: S						
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	PIKE DUP	LICATE	RECOVE	ERY STUD	ν <u>γ</u>				
BTEX by EPA 8021	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R {D}	Spike Added {E]	Blank Spike Duplicate Result (F)	Blk. Spk Dup. %R {G]	RPD %	Control Limits %R	Control Limits %RPD	Flag			
Analytes														
Tolucne	ND	0.1000	0.1092	109	0.1	0.1051	105	4	70-130	35	<u> </u>			
	ND	0.1000	0.1080	108	0.1	0.1040	104	4	70-130	35	<u>+</u>			
Ethylbenzene	ND	0.1000	0.1091	109	0.1	0.1045	105	4	71-129	35	<u> </u>			
m,p-Xylenes	ND	0.2000	0.2141	107	0.2	0.2045	102	5	70-135	35				
o-Xylene	ND	0.1000	0.1054	105	0.1	0.1011	101	4	71-133	35				
Analyst: BEV	D	ate Prepar	ed: 02/02/20	10			Date A	nalyzed: ()	2/02/2010					
Lab Batch ID: 792080 Sample:	549231-1-BKS	Batc	h #: 1					Matrix: S	Solid					
Units: mg/kg		BLAN	K/BLANK	SPIKE / I	BLANK S	PIKE DUP	LICATE	RECOVE	ERY STUD	γ				
TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag			
C6-C12 Gasoline Range Hydrocarbons	ND	998	808	81	997	845	85	4	70-135	35	[
C12-C28 Diesel Range Hydrocarbons	ND 998 805 81 997 835 84 4 70-135 35													

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



Project Name: E.K. Queen 6" Sec 15



Work Order #: 360731	Project ID: 2009-236												
Lab Batch ID: 792080 Date Analyzed: 02/03/2010	QC- Sample ID: Date Prepared:	02/02/2	2010	An		BEV	a: Soil						
Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
TPH by SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag		
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD			
C6-C12 Gasoline Range Hydrocarbons	21.1	1120	956	83	1110	953	84	0	70-135	35			
C12-C28 Diesel Range Hydrocarbons	228	1120	873	58	1110	990	69	13	70-135	35	x		

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

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

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





.

Project Name: E.K. Queen 6" Sec 15

Work Order #: 360731

Lab Batch #: 792290 Date Analyzed: 02/03/2010 QC- Sample ID: 360365-001 D Reporting Units: mg/kg	Date Prepara Batch		Anal	yst:ASA rix: Soil	D: ²⁰⁰⁹⁻²³⁶	
BTEX by EPA 8021 Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Benzene		ND	0.0013	NC	35	
Toluene		ND	0.0036	NC	35	
Ethylbenzene		ND	0.0022	NC	35	
m,p-Xylenes		ND	0.0030	NC	35	
o-Xylene		ND	0.0015	NC	35	
Lab Batch #: 792089 Date Analyzed: 02/02/2010 QC- Sample ID: 360722-001 D	Date Prepar Batch		Mat	lyst:JLG rix: Soil		<u>.</u>
Reporting Units: %		SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture		8.18	8.10	1	20	

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

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The Environmental Lab of Texas						12600 West I-20 East Odessa, Texas 79765											1	Phon Fax:		e: 432-563-1800 432-563-1713						
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역 8 9 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Beginning Depth	Ending Depth	Date Sampled	Time Sampled		I Iotal #. of Containers	HNO ₃	Hci H ₂ SQ4	NaOH	N82S2O3	None Othor (Speafy)	Dinking Water SL	GV = Croundwater S=Sori/Solid NP∈Non-Potable Specify Other	TPH. 418 1 4015M 801	TPH: TX 1005 TX 1006	E N		s Ag Ba Cd Cr Pb Hg	Volatiles	Semivolatiles	BIEX FOULD	N.O.R.M.			RUSH TAT (Pre-Schodule) 24	
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Final Ver. 1.000

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Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client	Plains/BasinEnv.	
Date/ Time:	02-02-10 01030	
Lab ID # :	340731	
Initials:	JMF	

100

21.5.12

Laboration

Sample Receipt Checklist

				· · · · · · · · · · · · · · · · · · ·	Client Initials
#1	Temperature of container/ cooler?	(es)	No	3.6°C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	· · · · ·
#4	Custody Seals intact on sample bottles/ container?/ (abe)	(es)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	1
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	Yes	No		1
#12	Samples in proper container/ bottle?	Tee	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	11
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		11
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	†
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	1
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	11
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

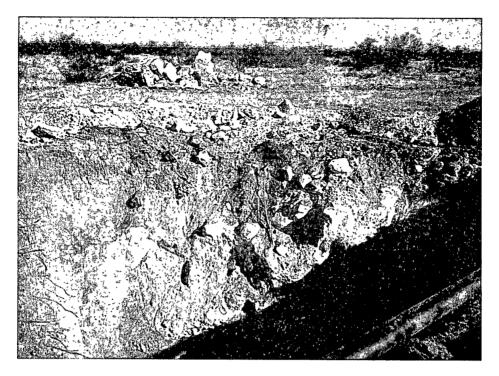
Appendix B Photographs

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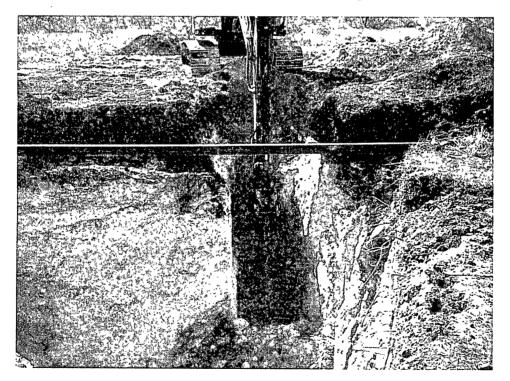
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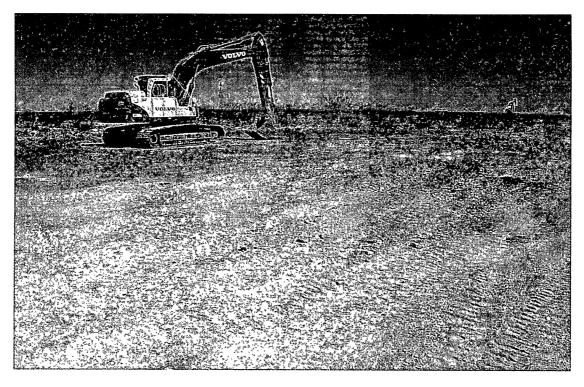
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EK Queen 6-Inch Sec. 15 excavation, looking north



EK Queen 6-Inch Sec. 15 excavation



EK Queen 6-Inch Remediation Activities Completed

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

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District I	
1625 N. French Dr., Hobbs, NM 88240	
District II	
1301 W. Grand Avenue, Artesia, NM 8	8210
District III	
1000 Rio Brazos Road, Aztec, NM 874	à0
District IV	
1220 S. St. Francis Dr., Santa Fe, NM	7505

State of New Mexico	/N	
Enormy Minorala and Natural Dd		

State of New Mexico Energy Minerals and Natural Resourcess Oil Conservation Division 1220 South St. E.

Form C-141 Revised October 10, 2003 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

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Santa Fe, NM 87505

	in a substant in the substance of								بروی بر این			
				Release Notification and Corrective Action								
							OPERATOR Initial Report				Final Repor	
Name of Co	ompany	Plains	Pipeline	ne, LP			Contact Jason Henry					
Address				– Denver City, Tx 79323			Telephone No. (575) 441-1099					
Facility Nat	ne	EK Qu	en 6-in	ch Sec. 15 Facility Type Pipeline								
Surface Ow	ner NMSI	LO			Mineral (Owner			Lease	No.		
					LOCATION OF RELEASE							<u></u>
Unit Letter Section Township				nge	Feet from the		/South Line	Feet from the	East/West Line	County		
G	15	185		4E						Lea		
					Latitude N 32.74821 Longitude W 103.5447				with (15)			
				NATURE OF RELEASE								
Type of Relea		de Oil		Volume of Release 15 bbls					Volume Recovered 0 bbls			
Source of Rel	lease 6"	Steel Pip	eline	1 (i			Date and F 10/19/2009	Iour of Occurrence		Date and Hour of Discovery 10/19/2009 14:45		
Was Immedia	ate Notice G	iven?			If YES, To Whom?							
			∐ Yes	No Not Required Larry Johnson on 11/09/2009 volume on 11/09/2009			009 (release orig	(release originally estimated 2 bbls, revised				
By Whom? J	Jason Henry	у										
Was a Water	course Reac	hed?			s 🛛 No							
			ЦΥ	ts 🖂	No				is C (~	EVE	, }	
If a Watercourse was Impacted, Desc			escribe l	ully.* NUV 신동 71819								
				HOBBSUCD								
Describe Cau	se of Proble	m and R	emedial	Action Taken.*								
Internal core	rosion of a (5-inch pi	peline c	used a release of crude oil. Throughput for the subject line is approximately 470 bbls/day and the								
			he deptl	of the pipeline at the release point is approximately 2' bgs. The H2S concentration in the crude is less								
than 10 ppm												
Describe Are	a Affected a	ind Clear	up Acti	n Taken.* .								
				stain that measured approximately 5' x 5'. The impacted area will be remediated per applicable								
guidelines. I hereby certify that the information given			n given	above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and								
regulations all operators are required to re			ort and/or file certain release notifications and perform corrective actions for releases which may endanger									
public health or the environment. The acc			plance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability									
should their operations have failed to adeq			ately investigate and remediate contamination that pose a threat to ground water, surface water, human health									
federal, state, or local laws and/or regulation			acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other									
icuorui, siaic,				13.		γ		OIL CON	SERVATIO	N DIVISI	<u>DN</u>	
Signature: (fason	De	ny	[~		and the second		
Printed Name: Jason Henry							Approved by District Supermison WILLENGINEED					
Title: Reme	diation Coo	ordinato					Approval Dat	te: 11.9.09	Expiratio	n Date: 2.	1.1	0

	E-mail Address: jhenry@paalp.	om		Conditions of Approval:	 Attached
	Date: 11-09-2009	P	none: (575) 441-1099	SUBMIT FINAL C. 141 BY	IRP 09.11.2335
*	Attach Additional Chaota If Nie		······		

Attach Additional Sheets If Necessary