District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

RECEIVED
JUL 24 2008
HOBBS OCD

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Plains Pipeline	Contact Camille Bryant
Address 3112 W. US Hwy 82, Lovington, NM 88260	Telephone No. 575-441-0965
Facility Name **Pitchfork 8-Inch**	Facility Type 8" Steel Pipeline

Surface Owner BLM	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
"B"	13	25S	33E					Lea

Latitude 32° 08' 15.7" North **Longitude** 103° 31' 30.1" West.

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 5 barrels	Volume Recovered 0 barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 1/23/2008 @ 1600 hours	Date and Hour of Discovery 1/23/2008 @ 1645 hours
Was Immediate Notice Given? Yes ☐ No ☐ Not Required	If YES, To Whom? Pat Richards	
By Whom? Camille Bryant	Date and Hour 1/28/2008 @ 800 hours	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken: Internal corrosion of a 8-inch steel pipeline resulted in the release of sweet crude oil. A pipeline clamp was installed on the line to mitigate the release. The line is a 8-inch steel gathering line that produces approximately 1,800 barrels of oil per day. The pressure on the line is approximately 60 psi and the gravity of the sweet crude oil is 42. The sweet crude has an H_2S content of <10 ppm. The line is approximately 4 feet bgs at the release point.

Describe Area Affected and Cleanup Action Taken: Initially the crude oil release was deemed to be a non-reportable release. On further excavation of the release area it was determined to elevate the crude oil release to a reportable status and an initial Form C-141 was prepared and submitted to the NMOCD. The impacted soil was excavated and placed on a poly liner. The final dimensions of the excavation were approximately 26 feet in width by 38 feet in length by 12 feet in depth. Approximately 475 cubic yards of impacted soil was excavated, blended, sampled and used as excavation backfill with NMOCD approval. A *Remediation Summary and Site Closure Request* dated July 2008 was prepared and submitted to the NMOCD – Hobbs District Office, this document provides full details of the remediation activities at the release site.

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: Camille Bryant	OIL CONSERVATION DIVISION	
Printed Name: Camille Bryant	Approved by District Supervisor: Johnson ENVIRONMENTAL ENGINEER	
Title: Remediation Coordinator	Approval Date: 7.24.08	Expiration Date: —
E-mail Address: cjbryant@paalp.com	Conditions of Approval: —	1RP-1781
Date: 7/24/2008 Phone: 575-441-0965		

Basin Environmental Service Technologies, LLC

2800 Plains Highway
P. O. Box 301
Lovington, New Mexico 88260
cstanley@basinenv.com
Office: (505) 396-2378 Fax: (505) 396-1429

Effective Solutions

REMEDIATION SUMMARY

AND FINAL

SITE CLOSURE REQUEST

PLAINS MARKETING, L.P. (231735)
~~Pitchfork~~ 8-Inch
Lea County, New Mexico
Plains SRS # 2008-00028
UNIT LTR B (NW ¼ /NE ¼), Section 13, Township 25 South, Range 33 East
Latitude 32° 08' 15.7" North, Longitude 103° 31' 30.1" West
NMOCD Reference # 1RP-1781

Prepared For:

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

Prepared By:
Basin Environmental Service Technologies, LLC

July 2008

Curt D. Stanley
Basin Environmental Service Technologies, LLC

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INTRODUCTION AND BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Plains Marketing, L.P. (Plains), has prepared this Remediation Summary and Site Closure Request for the release site known as Pitchfork 8-Inch. The legal description of the release site is Unit Letter B (NW ¼ NE ¼), Section 13, Township 25 South, Range 33 East, in Lea County, New Mexico. The property affected by the release is owned by United States Bureau of Land Management (BLM). The release site is located at the intersection of seven (7) steel or poly pipelines. The release site GPS coordinates are 32° 08' 15.7" North and 103° 31' 30.1" West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site and Sample Location Map. The BLM Report of Undesirable Event is provided as Appendix A and a report documenting the results of an archeological survey are provided as Appendix B. The Release Notification and Corrective Action (Form C-141) is provided as Appendix E.

On January 23, 2008, Plains discovered a crude oil release from an eight (8)-inch steel gathering pipeline. During initial response activities Plains installed a temporary pipeline clamp on the pipeline. The resulting surface stain attributed to the release measured approximately four (4) feet in width by four (4) feet in length. Recovery of the released crude oil was not feasible during the initial response activities. Initially, Plains classified the Pitchfork 8-inch release as a non-reportable release based on the visual soil surface staining.

On January 28, 2008, Plains reclassified the release as a reportable incident and notified the New Mexico Oil Conservation Division (NMOCD) – Hobbs District office of the release. The Form C-141 reported the release as 5 (five) barrels of crude oil from an eight (8)-inch steel gathering pipeline and the release was attributed to internal corrosion of the steel pipeline.

NMOCD SITE CLASSIFICATION

According to data obtained from the New Mexico Office of the State Engineer (NMOSE), groundwater was encountered at a depth of 185 feet below ground surface (bgs) in a domestic water well located in Section 13. The depth to groundwater in this area results in a score of zero (0) being assigned to the site based on the New Mexico Oil Conservation Division (NMOCD) depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

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

The NMOCD guidelines indicate the Pitchfork 8-Inch release site has a ranking score of zero (0). Based on this score, the soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 5,000 mg/Kg (ppm)

SUMMARY OF REMEDIATION ACTIVITIES

On January 29, 2008, initial excavation of the saturated hydrocarbon impacted soil began at the site. An investigation trench was excavated adjacent to the 8-inch pipeline to assess the soil impact. Excavated soil was stockpiled on-site on a plastic liner to mitigate the leaching of contaminants into the vadose zone.

On January 20, 2008, two delineation soil samples (N/W FLR 13' and E/W 9') were collected and submitted to Environmental Lab of Texas in Odessa, Texas for determination of concentrations of benzene, toluene, ethyl-benzene and xylene (BTEX) using EPA method SW-846 8021b and total petroleum hydrocarbons (TPH) using method 8015M. The analytical results indicated benzene concentrations were 0.006 mg/Kg in soil sample N/W FLR 13' and 0.0617 mg/Kg in soil sample E/W 9'. The analytical results indicated BTEX concentrations were 0.288 mg/Kg in soil sample N/W FLR 13' and 85.98 mg/Kg in soil sample E/W 9'. The analytical results indicated BTEX concentrations exceeded the NMOCD regulatory standard of 50 mg/Kg in soil sample E/W 9'. Soil samples N/W FLR 13' and E/W 9' exhibited TPH concentrations of 126 mg/Kg and 5,713 mg/Kg, respectively. The analytical results indicated additional excavation of impacted soil would be required at the site. A summary of the analytical results is included in Table 1, Concentrations of benzene, BTEX and TPH in Soil. Laboratory results are included in Appendix D and soil samples locations are depicted on Figure 2, Site and Sample Location Map.

On March 17 through 20, 2008, additional excavation of impacted soil was conducted on-site. Impacted soil was combined and blended with soil excavated during the January 2008 excavation activities. A total of approximately 475 cubic yards (cy) of soil was excavated from the release site, blended and stockpiled on-site pending analytical results.

On April 11, 2008, five confirmation (5) excavation sidewall soil samples (North Wall – 10' bgs, South Wall – 10' bgs, East Wall – 10' bgs, West Wall – 9' bgs and East Wall – 8' bgs) and three (3) confirmation excavation floor soil samples (Release Point – 12' bgs, East Floor – 12' bgs and West Floor – 12' bgs) were collected and submitted to the laboratory for determination of benzene, BTEX and TPH concentrations. Please note, soil sample East Wall – 8' bgs was mislabeled in the field and is identified as West Wall – 8' bgs on the chain-of-custody and subsequent laboratory reports.

The analytical results of the collected soil samples indicated the benzene concentrations ranged from less than the laboratory method detection limit (MDL) of 0.001 mg/Kg in soil sample Release Point – 12' bgs to 0.038 mg/Kg in soil sample West Wall – 9' bgs. The analytical results further indicated BTEX concentrations ranged from 0.0312 mg/Kg in soil sample Release Point – 12' bgs to 1.2363 mg/Kg in soil sample West floor – 12' bgs. The analytical results indicated all of the collected soil samples exhibited TPH concentrations below the NMOCD regulatory standard of 5,000 mg/Kg with the exception of soil samples East Wall – 10' bgs (7,269 mg/Kg) and East Wall – 8' bgs (41,900 mg/Kg).

On April 11, 2008, a five-point composite soil sample was collected from the 475 cy on-site soil stockpile. The analytical results indicated benzene concentrations were 0.0026 mg/Kg, BTEX concentrations were 0.7438 mg/Kg and TPH concentrations were 2,880 mg/Kg. Based on the analytical results, the stockpile was deemed suitable for backfill material based on the NMOCD site classification.

On May 7, 2008, representatives from Plains and Basin met with an NMOCD representative to discuss the analytical results of the soil samples collected on April 11, 2008. The analytical results indicated confirmation sidewall soil samples East Wall – 10' bgs and East Wall – 8' bgs exhibited TPH concentrations of 7,269 mg/Kg and 41,900 mg/Kg, respectively and were not below the NMOCD regulatory standard required for a non-risk based site closure. Plains indicated that due to the numerous pipelines crossing the excavation and the close proximity of the EOG 2 inch steel pipeline on the east side of the existing excavation, further excavation would not be feasible and could constitute a safety and environmental hazard. The NMOCD representative concurred with the Plains request for a risk-based closure of the Pitchfork 8-inch release site. The NMOCD representative requested the east sidewall be re-sampled and analyzed for concentrations of BTEX and TPH prior to the backfilling of the excavation with the blended stockpile soil. Photographs are provided in Appendix C.

On May 27, 2008, a soil sample (East Wall – 1 @ 8' bgs) was collected from the east sidewall of the excavation and submitted to the laboratory for determination of BTEX and TPH concentrations. The analytical results indicated the benzene concentration was 0.0018 mg/Kg, the BTEX concentration was 0.3155 mg/Kg and the TPH concentration was 7,136 mg/Kg.

The excavation was partially backfilled to allow for the repair of the temporarily clamped pipeline by Plains Operations personnel. Following the repair of the pipeline the excavation will be fully backfilled and contoured to fit the surrounding topography. When conditions are optimal the site will be reseeded with BLM approved vegetation.

SITE CLOSURE REQUEST

Based on the analytical results of confirmation soil samples collected from the floor and sidewalls of the excavation, Basin recommends Plains provide the NMOCD Hobbs district office a copy of this Remediation Summary and Site Closure Request and request the NMOCD grant site closure to the Pitchfork 8-Inch release site.

LIMITATIONS

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

Basin Environmental Service Technologies, LLC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Service Technologies, LLC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of

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

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

DISTRIBUTION:

Copy 1: Larry Johnson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 1)
1625 French Drive
Hobbs, New Mexico 88240

Copy 2: James Amos
Carlsbad Field Office
United Stated Bureau of Land Management
620 E. Greene Street
Carlsbad, New Mexico 88220

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cjbryant@paalp.com

Copy 5: Curt Stanley
Basin Environmental
P.O. Box 301
Lovington, New Mexico 88260
cstanley@basinenv.com

Figures

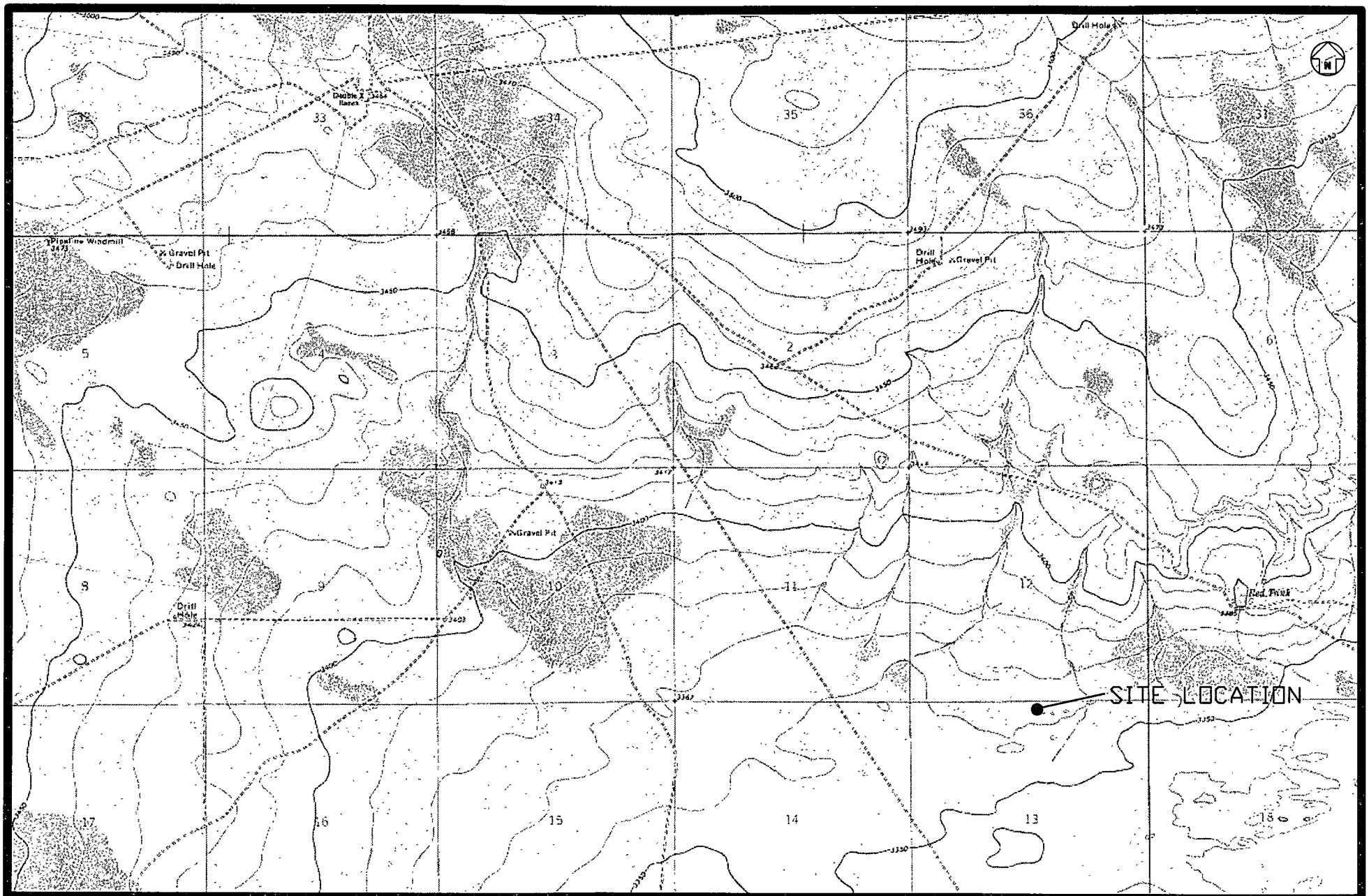
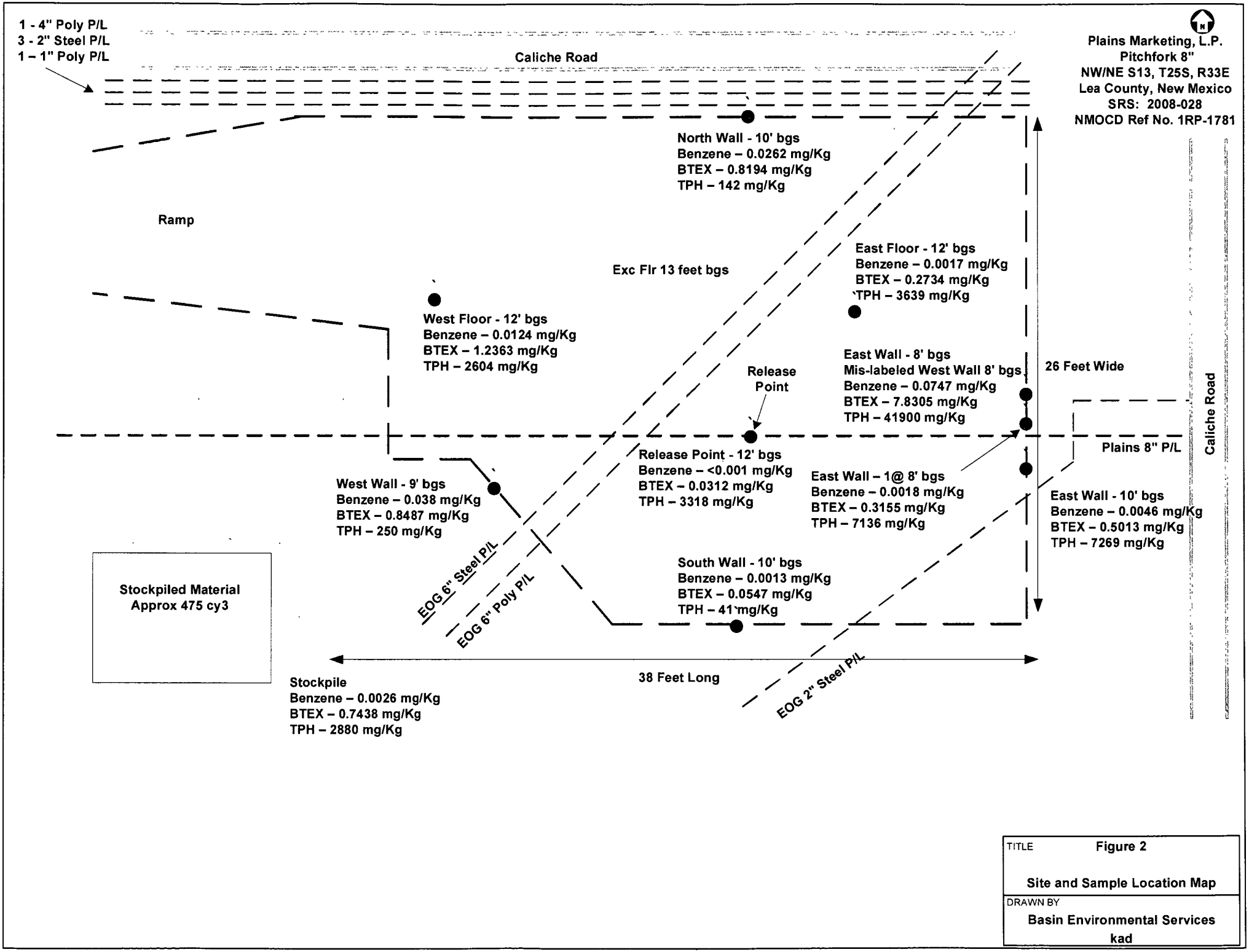


Figure 1
Site Location Map
Plains Marketing, L.P.
Pitchfork 8 Inch
Lea County, New Mexico
SRS # 20008-00028
NMOCD #1RP-1781

Basin Environmental Services

Prep By: CDS	Checked By: CDS
July 24, 2008	Scale 1"=3000'


1 - 4" Poly P/L
3 - 2" Steel P/L
1 – 1" Poly P/L
Caliche Road
Plains Marketing, L.P.
Pitchfork 8"
NW/NE S13, T25S, R33E
Lea County, New Mexico
SRS: 2008-028
NMOCD Ref No. 1RP-1781
North Wall - 10' bgs
Benzene – 0.0262 mg/Kg
BTEX – 0.8194 mg/Kg
TPH – 142 mg/Kg
Ramp
Exc Flr 13 feet bgs
East Floor - 12' bgs
Benzene – 0.0017 mg/Kg
BTEX – 0.2734 mg/Kg
TPH – 3639 mg/Kg
West Floor - 12' bgs
Benzene – 0.0124 mg/Kg
BTEX – 1.2363 mg/Kg
TPH – 2604 mg/Kg
East Wall - 8' bgs
Mis-labeled West Wall 8' bgs
Benzene – 0.0747 mg/Kg
BTEX – 7.8305 mg/Kg
TPH – 41900 mg/Kg
Release Point
26 Feet Wide
Caliche Road
Plains 8" P/L
Release Point - 12' bgs
Benzene – <0.001 mg/Kg
BTEX – 0.0312 mg/Kg
TPH – 3318 mg/Kg
West Wall - 9' bgs
Benzene – 0.038 mg/Kg
BTEX – 0.8487 mg/Kg
TPH – 250 mg/Kg
East Wall – 1@ 8' bgs
Benzene – 0.0018 mg/Kg
BTEX – 0.3155 mg/Kg
TPH – 7136 mg/Kg
East Wall - 10' bgs
Benzene – 0.0046 mg/Kg
BTEX – 0.5013 mg/Kg
TPH – 7269 mg/Kg
EOG 6" Steel P/L
EOG 6" Poly P/L
South Wall - 10' bgs
Benzene – 0.0013 mg/Kg
BTEX – 0.0547 mg/Kg
TPH – 41 mg/Kg
Stockpiled Material
Approx 475 cy3
38 Feet Long
EOG 2" Steel P/L
Stockpile
Benzene – 0.0026 mg/Kg
BTEX – 0.7438 mg/Kg
TPH – 2880 mg/Kg
TITLE
Figure 2
Site and Sample Location Map
DRAWN BY
Basin Environmental Services
kad

Tables

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX AND TPH IN SOIL

PLAINS MARKETING, L.P.
PITCHFORK 8"
LEA COUNTY, NEW MEXICO
SRS: 2008-028
NMOCD REFERENCE NO: 1RP-1781

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	DATE ANALYZED	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M		TOTAL TPH C_6-C_{35} (mg/Kg)
					BENZENE (mg/Kg)	TOLUENE mg/Kg	ETHYL-BENZENE (mg/Kg)	M.P. - XYLENES (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C_6-C_{12} (mg/Kg)	DRO C_{12}-C_{35} (mg/Kg)	
N/W FLR 13'	13' bgs	03/20/08	03/24/08	Excavated	0.006	0.043	0.029	0.156	0.054	0.288	<15	126	126
E/W 9'	9' bgs	03/20/08	03/27/08	Excavated	0.0617	17.65	8.72	43.33	16.22	**85.9817**	1880	3833	**5,713**
Release Point - 12' bgs	12' bgs	04/11/08	04/17/08	In-Situ	<0.001	0.0039	0.004	0.0151	0.0082	0.0312	62.5	3255	3,318
North Wall - 10' bgs	10' bgs	04/11/08	04/17/08	In Situ	0.0262	0.2501	0.0743	0.361	0.1078	0.8194	24	118	142
South Wall - 10' bgs	10' bgs	04/11/08	04/17/08	In Situ	0.0013	0.0096	0.0067	0.0259	0.0112	0.0547	<15	41	41
East Wall - 10' bgs	10' bgs	04/11/08	04/17/08	In Situ	0.0046	0.0771	0.053	0.2301	0.1365	0.5013	289	6980	**7,269**
West Wall - 9' bgs	9' bgs	04/11/08	04/17/08	In Situ	0.038	0.2203	0.0708	0.3937	0.1259	0.8487	39	211	250
East Floor - 12' bgs	12' bgs	04/11/08	04/17/08	In Situ	0.0017	0.0249	0.028	0.1328	0.086	0.2734	108	3531	3,639
West Floor - 12' bgs	12' bgs	04/11/08	04/17/08	In Situ	0.0124	0.2214	0.1246	0.6036	0.2743	1.2363	152	2452	2,604
Stockpile	-	04/11/08	04/17/08	Backfill	0.0026	0.0922	0.0601	0.3997	0.1892	0.7438	88	2792	2,880
East Wall - 8' bgs (mislabeled West Wall 8'	8' bgs	04/11/08	04/17/08	In Situ	0.0747	1.728	0.9888	2.915	2.124	7.8305	5820	36080	**41,900**
East Wall - 1 @ 8' bgs	8' bgs	05/27/08	05/29/08	In Situ	0.0018	0.0467	0.0269	0.1088	0.3155	0.3909	176	6960	**7,136**
NMOCD Criteria					**10**					**50**			**5,000**

Appendices

Appendix A
BLM Report of Undesirable Event

Form NM 3162-1
(August 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
New Mexico State Office

REPORT OF UNDESIRABLE EVENT

DATE OF OCCURRENCE/DISCOVERY: 1/23/2008 TIME OF OCCURRENCE: 1645

DATE REPORTED TO BLM: 1/29/2008 TIME REPORTED: 1560

BLM OFFICE REPORTED TO: (FIELD/DISTRICT/OTHER) Carlsbad Office (Jim Amos)

LOCATION: (¼ ¼) NW/NE SECTION 13 T. 25S R. 33E MERIDIAN New Mexico Prime

COUNTY: Lea STATE: NM WELL NAME _____

OPERATOR: COMPANY NAME: Plains Pipeline PHONE NO. (505)441-0965
CONTACT PERSON'S NAME Camille Reynolds

SURFACE OWNER: BLM MINERAL OWNER: _____
(FEDERAL/INDIAN/FEE/STATE)

LEASE NO.: _____ RIGHT-OF-WAY NO.: NM94802

UNIT NAME / COMMUNITIZATION AGREEMENT NO.: _____

TYPE OF EVENT, CIRCLE APPROPRIATE ITEM (S):

BLOWOUT, FIRE, FATALITY, INJURY, PROPERTY DAMAGE, (OIL SPILL), SALTWATER SPILL, OIL AND SALTWATER SPILL, TOXIC FLUID SPILL, HAZARDOUS MATERIAL SPILL, UNCONTROLLED FLOW OF WELLBORE FLUIDS, OTHER (SPECIFY):

CAUSE OF EVENT: Internal corrosion of 8-inch steel resulted in release of Crude oil

HazMat Notified: (for spills) —

Law Enforcement Notified: (for thefts) —

CAUSE AND EXTENT OF PERSONAL INJURIES/CAUSE OF DEATH(S):

Safety Officer Notified: —

EFFECTS OF EVENT: Soil impact from crude oil release

ACTION TAKEN TO CONTROL EVENT: Clamp installed on line to Mitigate release

LENGTH OF TIME TO CONTROL BLOWOUT OR FIRE: _____

VOLUMES DISCHARGED: OIL 5 barrels WATER — GAS —

OTHER AGENCIES NOTIFIED: Pat Richard NMOCD Hobbs Office

ACTION TAKEN OR TO BE TAKEN TO PREVENT RECURRENCE: _____

FINAL INVESTIGATION:
TEAM NAME(S) _____

FIELD INSPECTION DATE _____

SUMMARY OF RESULTS OF INSPECTION _____

RESOURCE LOSS WAS (CIRCLE ITEM): AVOIDABLE UNAVOIDABLE

DATE OF MEMO NOTIFYING MINERALS MANAGEMENT SSERVICE THAT LOSS WAS AVOIDABLE: _____

DATE/TIME/PERSON NOTIFIED:
DISTRICT OFFICE _____

STATE OFFICE _____

WASHINGTON OFFICE _____

SUMMARY OF RESULTS OF RECLAMATION/CORRECTIVE ACTION: _____

REMARKS: _____

SIGNATURE OF AUTHORIZED OFFICER _____

DATE: _____ TITLE: _____

Appendix B
Archaeological Survey

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.:	2a. Lead (Sponsoring) Agency:	2b. Other Permitting Agency(ies):	3. Lead Agency Report No.:
109166	BLM, CFO		

4. Title of Report: Pitchfork 8 Inch crude oil release site.

Author(s) Ann and Danny Boone

5. Type of Report ☒ Negative ☐ Positive

6. Investigation Type
☐ Research Design ☒ Survey/Inventory ☐ Test Excavation ☐ Excavation ☐ Collections/Non-Field Study
☐ Overview/Lit Review ☐ Monitoring ☐ Ethnographic study ☐ Site specific visit ☐ Other

7. Description of Undertaking (what does the project entail?): The project is an area where petroleum fluid leaked from a buried pipeline that will be cleaned up. Methods are unknown but it is assumed that contaminated soil will be excavated and removed from the site.

8. Dates of Investigation: (from: 2/8/2008 to:)

9. Report Date: 12 Feb. 08

10. Performing Agency/Consultant: Boone Archaeological Services, LLC
2030 North Canal, Carlsbad, NM 88220
575-885-1352
Principal Investigator: Danny Boone Field Supervisor: Danny Boone
Field Personnel Names: Danny Boone

11. Performing Agency/Consultant Report No.:
BAS 02-08-07

12. Applicable Cultural Resource Permit No(s):
BLM: 190-2920-06-J

13. Client/Customer (project proponent): Plains Marketing, L.P.
Contact: Ken Dutton (Agent)
Address: 1301 S Country Road 1150
Midland, Texas 79706-4476
Phone: (432) 682-5392

14. Client/Customer Project No.:

15. Land Ownership Status *(Must be indicated on project map)*:

Land Owner	Acres Surveyed	Acres in APE
BLM	1.15 (+/-)	0.22 (-/+)
TOTALS	1.15 (-/+)	0.22 (+/-)

16 Records Search(es):

Date(s) of ARMS File Review: 5 Feb. 08	Name of Reviewer(s): Ann Boone	
Date(s) of NR/SR File Review:	Name of Reviewer(s):	
Date(s) of Other Agency File Review: 13 Feb. 08	Name of Reviewer(s): Danny Boone	Agency: BLM, CFO

Findings: LA 100998 and 100999 are within 500 feet. LA 43964 is within 0.25 mile. The project shows to be in contact with LA 100999, this site was declared not eligible by SHPO in 1993, HPD Log No. 41665, it was not located by SNMAS in Oct. 2003. Currently there is a caliche capped road and two buried pipelines at this location. It was not relocated by the current survey.

17. Survey Data: a. Source Graphics ☒ NAD 27 ☐ NAD 83
☒ USGS 7.5' (1:24,000) topo map ☐ Other topo map, Scale:
☒ GPS Unit Accuracy ☐ <1.0m ☒ 1-10m ☐ 10-100m ☐ >100m

b. USGS 7.5' Topographic Map Name / USGS Quad Code

BELL LAKE, NM (1973)	32103-B5

c. County(ies): Lea

17. Survey Data (continued):
d. Nearest City or Town:
e. Legal Description:

Township (N/S)	Range (E/W)	Section	¼ ¼ ¼
25S	33E	12	sw se,
		13	nw ne,

Projected legal description? Yes [ ] No [x] Unplatted [ ]
f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

18. Survey Field Methods:
Intensity: ☒ 100% coverage ☐ <100% coverage
Configuration: ☒ block survey units ☐ linear survey units (l x w): ☐ other survey units (specify):
Scope: ☒ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)
Coverage Method: ☒ systematic pedestrian coverage ☐ other method (describe)
Survey Interval (m): 15 Crew Size: 1 Fieldwork Dates: 8 Feb. 08
Survey Person Hours: 0.5 Recording Person Hours: 0 Total Hours: 0.5
Additional Narrative: No plat was available for the project therefore location and acres are estimates based on a hand held GPS Unit. A 100 feet buffer was placed around the project resulting in an area estimated to be 250 by 200 feet, the corners of the survey area was marked with a combination of pink and orange tape tied to vegetation.

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):
Topography: Moderately rolling and undulating dunal plain.
Vegetative community: Consists primarily of shinoak, sage brush, mesquite, yucca cactus, various grasses and other flora.
NRCS: Peyote-Maljamar-Kermit association: Gently undulating and rolling, deep, sandy soils.
Elevation: 3435 feet

20. a. Percent Ground Visibility: 90 overall b. Condition of Survey Area (grazed, bladed, undisturbed, etc.): Project is where petroleum fluid leaked from a buried pipeline, also a caliche capped raod and another buried pipeline are within the survey area.

21. CULTURAL RESOURCE FINDINGS ☐ Yes, See Page 3 ☒ No, Discuss Why: Unknown

22. Required Attachments (check all appropriate boxes):
☒ USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn
☐ Copy of NMCRIS Mapserver Map Check
☐ LA Site Forms - new sites (*with sketch map & topographic map*)
☐ LA Site Forms (update) - previously recorded & un-relocated sites (*first 2 pages minimum*)
☐ Historic Cultural Property Inventory Forms
☐ List and Description of isolates, if applicable
☐ List and Description of Collections, if applicable

23. Other Attachments:
☐ Photographs and Log
☐ Other Attachments
(Describe):

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Responsible Archaeologist: Danny Boone
Signature Danny Boone Date: 13 Feb. 08 Title (if not PI):

25. Reviewing Agency:
Reviewer's Name/Date

Accepted ( ) Rejected ( )

Tribal Consultation (if applicable): ☐ Yes ☐ No

26. SHPO
Reviewer's Name/Date:

HPD Log #:
SHPO File Location:
Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.: 109166	2. Lead (Sponsoring) Agency: BLM, CFO	3. Lead Agency Report No.:

SURVEY RESULTS:
Sites discovered and registered: 0
Sites discovered and NOT registered: 0
Previously recorded sites revisited (*site update form required*): 0
Previously recorded sites not relocated (*site update form required*): 0
TOTAL SITES VISITED: 0
Total isolates recorded: 0 Non-selective isolate recording? ☒
Total structures recorded (*new and previously recorded, including acequias*): 0

MANAGEMENT SUMMARY: No cultural resources were encountered therefore clearance of an area for the Pitchfork 8 inch crude oil release site for Plains Marketing, L.P. is recommended. If cultural resources are encountered at any time all activity should cease and the BLM Archaeologist notified immediately.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

SURVEY LA NUMBER LOG
Sites Discovered:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

Previously recorded revisited sites:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

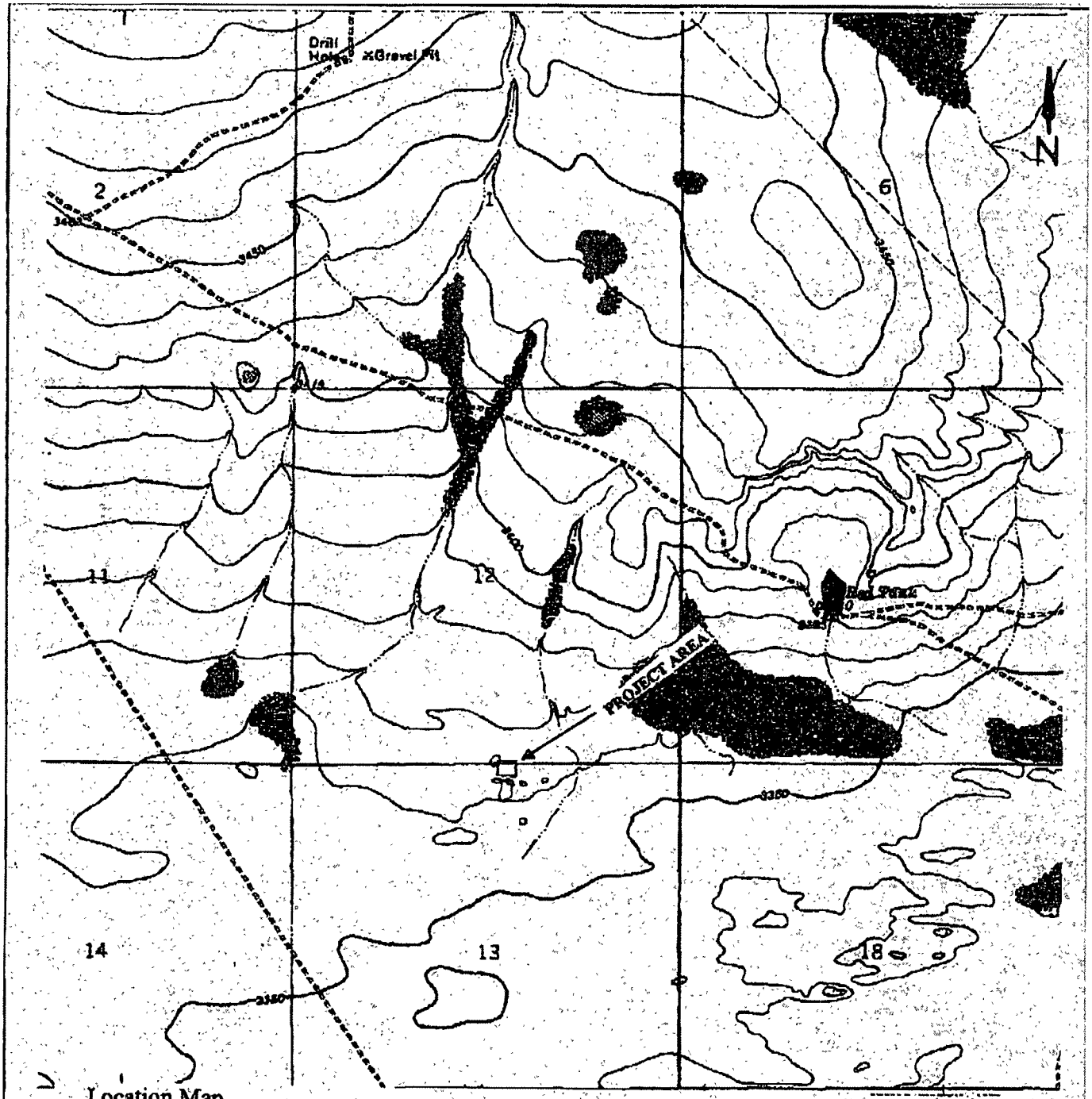
MONITORING LA NUMBER LOG (*site form required*)
Sites Discovered (*site form required*): Previously recorded sites (*Site update form required*):

LA No.	Field/Agency No.	LA No.	Field/Agency No.

Areas outside known nearby site boundaries monitored? Yes ☐, No ☐ If no explain why:

TESTING & EXCAVATION LA NUMBER LOG (*site form required*)

Tested LA number(s)	Excavated LA number(s)



Location Map

BAS 02-08-07

Pitchfork 8 Inch crude oil release site for Plains Marketing, L.P. in Section 13, T 25S, R 33E, NMPM, LEA County, NEW MEXICO.

Map Reference: USGS 7.5' Series; BELL LAKE, NM (1973) 32103-B5

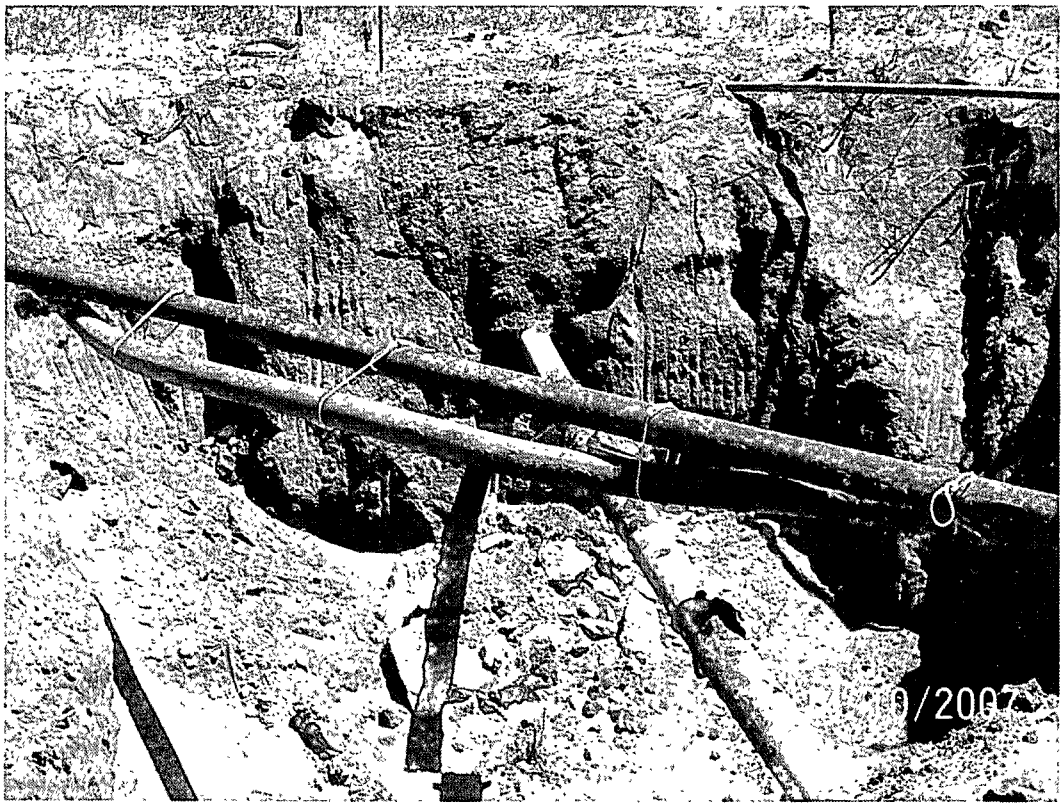
SCALE 1:24000

1 0 1 MILE

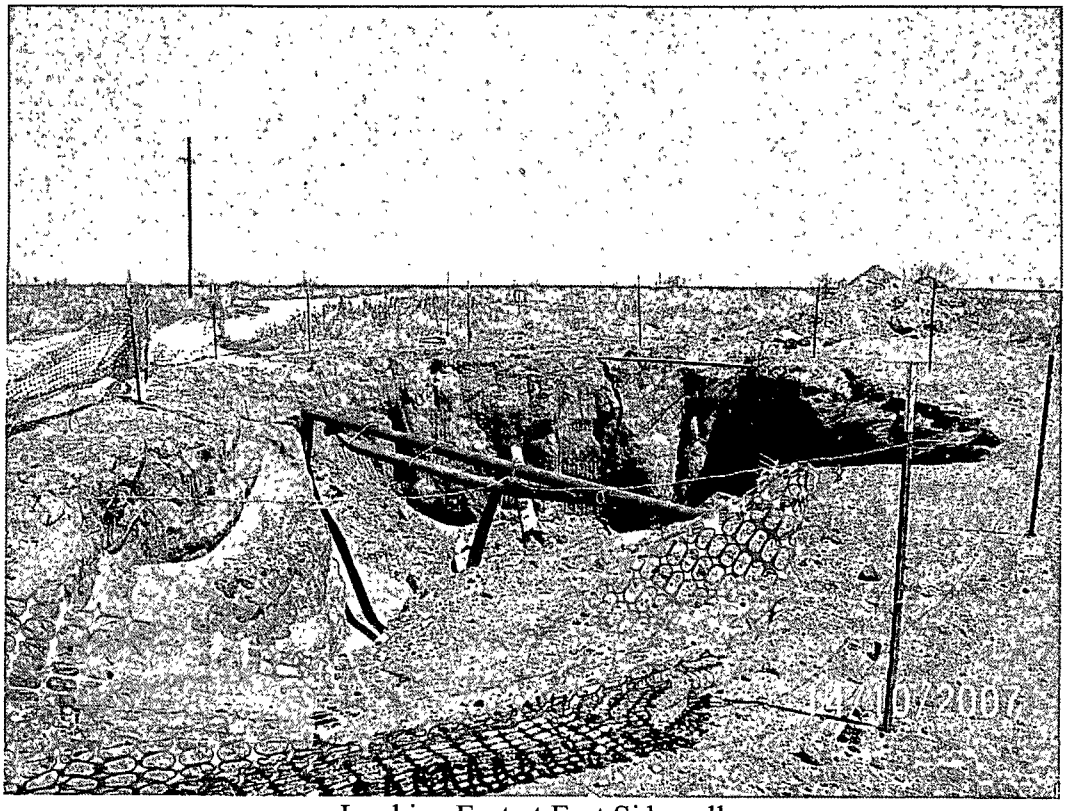
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

Appendix C
Photographs



Looking East at East Sidewall (Plains Pipeline is Blue/Green at Bottom)



Looking East at East Sidewall

Appendix D
Laboratory Reports

Analytical Report 300153

for

PLAINS ALL AMERICAN EH&S

Project Manager: Camille Reynolds

Pitchfork 8"

2008-028

31-MAR-08

ENVIRONMENTAL LAB OF

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215

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

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

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

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

31-MAR-08

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

Reference: XENCO Report No: **300153**
Pitchfork 8"
Project Address: Lea County, NM

Camille Reynolds:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 300153. 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. 300153 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

Sample Cross Reference 300153

PLAINS ALL AMERICAN EH&S, Midland, TX

Pitchfork 8"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
N/W Fir 13'	S	Mar-20-08 14:20		300153-003
E/W 9'	S	Mar-20-08 14:50		300153-006

Certificate of Analysis Summary 300153

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Pitchfork 8"

Project Id: 2008-028
Contact: Camille Reynolds
Project Location: Lea County, NM

Date Received in Lab: Fri Mar-21-08 03:15 pm
Report Date: 31-MAR-08
Project Manager: Brent Barron, II

Analysis Requested								
	Lab Id:	300153-003		300153-006				
	Field Id:	N/W Fir 13'		E/W 9'				
	Depth:							
	Matrix:	SOIL		SOIL				
	Sampled:	Mar-20-08 14:20		Mar-20-08 14:50				
BTEX by EPA 8021B	*Extracted:*	Mar-24-08 09:00		Mar-27-08 08:20				
	Analyzed:	Mar-24-08 21:34		Mar-27-08 13:34				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Benzene		0.0067	0 0010	0.6172	0.0533			
Toluene		0.0431	0.0020	17.65	0.1066			
Ethylbenzene		0.0297	0.0010	8.720	0.0533			
m,p-Xylenes		0.1566	0.0020	43.33	0.1066			
o-Xylene		0.0541	0.0010	16.22	0.0533			
Xylenes, Total		0.2107		59.55				
Total BTEX		0.2902		86.5372				
Percent Moisture	*Extracted:*							
	Analyzed:	Mar-24-08 16:30		Mar-24-08 16:30				
	Units/RL:	%	RL	%	RL			
Percent Moisture		2 12		6.19				
TPH By SW8015 Mod	*Extracted:*	Mar-24-08 14:30		Mar-24-08 14:30				
	Analyzed:	Mar-28-08 15:14		Mar-28-08 14:20				
	Units/RL:	mg/kg	RL	mg/kg	RL			
C6-C12 Gasoline Range Hydrocarbons		ND	15.3	1880	16.0			
C12-C28 Diesel Range Hydrocarbons		126	15 3	3470	16.0			
C28-C35 Oil Range Hydrocarbons		ND	15.3	363	16 0			
Total TPH		126		5713				

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 300153 **Project ID:** 2008-028

Lab Batch #: 718032 **Sample:** 300153-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0352	0.0300	117	80-120	
4-Bromofluorobenzene	0.0533	0.0300	178	80-120	**

Lab Batch #: 718032 **Sample:** 506398-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0357	0.0300	119	80-120	

Lab Batch #: 718032 **Sample:** 506398-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 718032 **Sample:** 506398-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 718459 **Sample:** 300153-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	1.733	0.0300	5777	80-120	**
4-Bromofluorobenzene	0.0601	0.0300	200	80-120	**

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 300153 **Project ID:** 2008-028

Lab Batch #: 718459 **Sample:** 506613-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	80-120	
4-Bromofluorobenzene	0.0356	0.0300	119	80-120	

Lab Batch #: 718459 **Sample:** 506613-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0331	0.0300	110	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 718459 **Sample:** 506613-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0332	0.0300	111	80-120	
4-Bromofluorobenzene	0.0351	0.0300	117	80-120	

Lab Batch #: 718508 **Sample:** 300153-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.4	100	77	70-135	
o-Terphenyl	36.4	50.0	73	70-135	

Lab Batch #: 718508 **Sample:** 300153-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.9	100	86	70-135	
o-Terphenyl	42.5	50.0	85	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 300153 **Project ID:** 2008-028

Lab Batch #: 718508 **Sample:** 300153-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.5	100	81	70-135	
o-Terphenyl	38.3	50 0	77	70-135	

Lab Batch #: 718508 **Sample:** 300153-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.3	100	84	70-135	
o-Terphenyl	34.1	50.0	68	70-135	**

Lab Batch #: 718508 **Sample:** 506628-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.0	100	82	70-135	
o-Terphenyl	36.8	50 0	74	70-135	

Lab Batch #: 718508 **Sample:** 506628-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.6	100	78	70-135	
o-Terphenyl	31.1	50.0	62	70-135	**

Lab Batch #: 718508 **Sample:** 506628-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.5	100	88	70-135	
o-Terphenyl	39.2	50.0	78	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: Pitchfork 8"

Work Order #: 300153 **Project ID:** 2008-028

Analyst: SHE **Date Prepared:** 03/24/2008 **Date Analyzed:** 03/24/2008

Lab Batch ID: 718032 **Sample:** 506398-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0920	92	0.1	0.0934	93	2	70-130	35	
Toluene	ND	0.1000	0.0928	93	0.1	0.0944	94	2	70-130	35	
Ethylbenzene	ND	0.1000	0.0919	92	0.1	0.0948	95	3	71-129	35	
m,p-Xylenes	ND	0.2000	0.1855	93	0.2	0.1902	95	3	70-135	35	
o-Xylene	ND	0.1000	0.0987	99	0.1	0.1001	100	1	71-133	35	

Analyst: SHE **Date Prepared:** 03/27/2008 **Date Analyzed:** 03/27/2008

Lab Batch ID: 718459 **Sample:** 506613-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0802	80	0.1	0.0809	81	1	70-130	35	
Toluene	ND	0.1000	0.0820	82	0.1	0.0835	84	2	70-130	35	
Ethylbenzene	ND	0.1000	0.0863	86	0.1	0.0879	88	2	71-129	35	
m,p-Xylenes	ND	0.2000	0.1740	87	0.2	0.1766	88	1	70-135	35	
o-Xylene	ND	0.1000	0.0943	94	0.1	0.0956	96	1	71-133	35	

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

BS / BSD Recoveries

Project Name: Pitchfork 8"

Work Order #: 300153
Analyst: ASA
Lab Batch ID: 718508 **Sample:** 506628-1-BKS **Batch #:** 1
Units: mg/kg

Date Prepared: 03/24/2008

Project ID: 2008-028
Date Analyzed: 03/28/2008
Matrix: Solid

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
	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
C6-C12 Gasoline Range Hydrocarbons	ND	1000	889	89	1000	931	93	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	877	88	1000	926	93	5	70-135	35	

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

ENVIRONMENTAL LAB OF

Form 3 - MS / MSD Recoveries

Project Name: Pitchfork 8"

Work Order # : 300153 **Project ID:** 2008-028

Lab Batch ID: 718508 **QC- Sample ID:** 300153-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/28/2008 **Date Prepared:** 03/24/2008 **Analyst:** ASA

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1020	855	84	1020	812	80	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	126	1020	975	83	1020	921	78	6	70-135	35	

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

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

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

Sample Duplicate Recovery

Project Name: Pitchfork 8"

Work Order #: 300153

Lab Batch #: 718053 **Project ID:** 2008-028

Date Analyzed: 03/24/2008 **Date Prepared:** 03/24/2008 **Analyst:** RBA

QC- Sample ID: 300152-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	1 57	1.22	25	20	F

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

Environmental Lab of Texas

a XENCO Laboratory Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Ken Dutton — PAGE 01 OF 01 — Project Name: PITCHFORK 8"

Company Name: Basin Environmental Service Technologies, LLC — Project #: 2008-028

Company Address: P. O. Box 301 — Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260 — PO #: PAA - C. Reynolds

Telephone No: (505) 441-2124 — Fax No: (505) 396-1429 — Report Format: [X] Standard [ ] TRRP [ ] NPDES

Sampler Signature: Ken Dutton — e-mail: kdutton@basinenv.com

(lab use only) ORDER #: 300153

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH 418.1	TPH 8015M	TPH TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N O R M	CHLORIDES	RUSH TAT (Pre-Schedule) 24 48 72 hrs	Standard TAT
1	R/P 13'			20-Mar-08	1400		1	X								SOIL																
2	S/E Flr 13'			20-Mar-08	1410		1	X								SOIL																
3	N/W Flr 13'			20-Mar-08	1420		1	X								SOIL	X										X					X
4	N/W 9'			20-Mar-08	1430		1	X								SOIL																
5	S/W 9'			20-Mar-08	1440		1	X								SOIL																
6	E/W 9'			20-Mar-08	1450		1	X								SOIL	X										X					X
7	W/W 9'			20-Mar-08	1500		1	X								SOIL																
8	S/P			20-Mar-08	1510		1	X								SOIL																

Special Instructions:
RUN NW FLR & E/W SAMPLES AS INDICATED. HOLD REMAINING 6 SAMPLES FOR POSSIBLE ANALYSIS

Relinquished by	Date	Time	Received by	Date	Time
Ken Dutton	3/20/08	1515			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT	Date	Time
			Jaime Fitch	03-21-08	1515

Laboratory Comments:

Sample Containers Intact?	Y N
VOCs Free of Headspace?	Y N
Labels on container(s)	Y N
Custody seals on container(s)	Y N
Custody seals on cooler(s)	Y N
Sample Hand Delivered by Sampler/Client Rep ?	Y N
by Courier? UPS DHL FedEx Lone Star	
Temperature Upon Receipt	3.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Plains

Date/ Time: 03-21-08 @ 1515

Lab ID #: 300153

Initials: JMF

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	3.0 °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?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	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?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time _____

Regarding _____

Corrective Action Taken

Check all that Apply

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

Analytical Report 301918

for

PLAINS ALL AMERICAN EH&S

Project Manager: Camille Reynolds

Pitchfork 8"

2008-00028

22-APR-08

ENVIRONMENTAL LAB OF

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215

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

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

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

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

22-APR-08

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

Reference: XENCO Report No: **301918**
Pitchfork 8"
Project Address: Lea County, NM

Camille Reynolds:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 301918. 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. 301918 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

Sample Cross Reference 301918

PLAINS ALL AMERICAN EH&S, Midland, TX

Pitchfork 8"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Release Point - 12' bgs	S	Apr-11-08 11:20		301918-001
North Wall -10' bgs	S	Apr-11-08 11:28		301918-002
South Wall - 10' bgs	S	Apr-11-08 11:35		301918-003
East Wall - 10' bgs	S	Apr-11-08 11:43		301918-004
West Wall - 9' bgs	S	Apr-11-08 11:51		301918-005
East Floor - 12' bgs	S	Apr-11-08 11:59		301918-006
West Floor - 12' bgs	S	Apr-11-08 12:10		301918-007
Stockpile	S	Apr-11-08 12:24		301918-008
West Wall - 8' bgs	S	Apr-11-08 12:35		301918-009

Certificate of Analysis Summary 301918

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Pitchfork 8"

Project Id: 2008-00028
Contact: Camille Reynolds
Project Location: Lea County, NM

Date Received in Lab: Thu Apr-17-08 08:10 am
Report Date: 22-APR-08
Project Manager: Brent Barron, II

Analysis Requested	*Lab Id:*	301918-001		301918-002		301918-003		301918-004		301918-005		301918-006	
	Field Id:	Release Point - 12' bgs		North Wall -10' bgs		South Wall - 10' bgs		East Wall - 10' bgs		West Wall - 9' bgs		East Floor - 12' bgs	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-11-08 11:20		Apr-11-08 11:28		Apr-11-08 11:35		Apr-11-08 11:43		Apr-11-08 11:51		Apr-11-08 11 59	
BTEX by EPA 8021B	*Extracted:*	Apr-17-08 17.33		Apr-17-08 17:33		Apr-17-08 17:33		Apr-17-08 17:33		Apr-18-08 11:46		Apr-18-08 11 46	
	Analyzed:	Apr-17-08 20:51		Apr-17-08 21:15		Apr-17-08 21:38		Apr-17-08 22:02		Apr-18-08 14:21		Apr-18-08 14.45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	0.0262	0.0010	0 0013	0 0010	0 0046	0.0010	0.0380	0.0010	0.0017	0.0010
Toluene		0.0039	0.0020	0 2501	0.0020	0 0096	0 0020	0.0771	0.0020	0.2203	0.0020	0.0249	0.0020
Ethylbenzene		0.0040	0.0010	0.0743	0.0010	0 0067	0.0010	0.0530	0.0010	0.0708	0.0010	0.0280	0.0010
m,p-Xylenes		0.0151	0.0020	0 3610	0.0020	0 0259	0.0020	0.2301	0.0020	0.3937	0.0020	0.1328	0.0020
o-Xylene		0.0082	0 0010	0 1078	0.0010	0 0112	0.0010	0.1365	0.0010	0.1259	0.0010	0.0860	0.0010
Xylenes, Total		0.0233		0.4688		0.0371		0.3666		0.5196		0.2188	
Total BTEX		0.0312		0.8194		0 0547		0.5013		0.8487		0.2734	
Percent Moisture	*Extracted:*												
	Analyzed:	Apr-17-08 16:30		Apr-17-08 16 30		Apr-17-08 16:30		Apr-17-08 16:30		Apr-17-08 16:30		Apr-17-08 16:30	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		1.42		61		1.36		1.23		.723		.971	
TPH By SW8015 Mod	*Extracted:*	Apr-18-08 15.25		Apr-18-08 15:25		Apr-18-08 15:25		Apr-18-08 15:25		Apr-18-08 15:25		Apr-18-08 15:25	
	Analyzed:	Apr-18-08 19 35		Apr-18-08 20:00		Apr-18-08 20:25		Apr-21-08 09:44		Apr-20-08 09:14		Apr-20-08 09:39	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		62.5	15.2	23.7	15 1	ND	15.2	289	75 9	39.1	15.1	108	15.1
C12-C28 Diesel Range Hydrocarbons		2660	15.2	63.9	15.1	41 1	15.2	5810	75 9	118	15.1	2860	15 1
C28-C35 Oil Range Hydrocarbons		595	15.2	54 6	15 1	ND	15.2	1170	75.9	92.9	15.1	671	15 1
Total TPH		3317 5		142.2		41.1		7269		250		3639	

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Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 301918

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Pitchfork 8"

Project Id: 2008-00028
Contact: Camille Reynolds
Project Location: Lea County, NM

Date Received in Lab: Thu Apr-17-08 08:10 am
Report Date: 22-APR-08
Project Manager: Brent Barron, II

Analysis Requested											
	Lab Id:	301918-007		301918-008		301918-009					
	Field Id:	West Floor - 12' bgs		Stockpile		West Wall - 8' bgs					
	Depth:										
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Apr-11-08 12:10		Apr-11-08 12:24		Apr-11-08 12.35					
BTEX by EPA 8021B	*Extracted:*	Apr-18-08 11:46		Apr-18-08 11:46		Apr-18-08 11:46					
	Analyzed:	Apr-18-08 15:09		Apr-18-08 15:33		Apr-18-08 15 57					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		0.0124	0.0010	0.0026	0 0010	0.0747	0.0053				
Toluene		0.2214	0.0020	0 0922	0 0020	1.728	0.0106				
Ethylbenzene		0.1246	0.0010	0 0601	0 0010	0.9888	0.0053				
m,p-Xylenes		0.6036	0 0020	0 3997	0.0020	2.915	0.0106				
o-Xylene		0.2743	0 0010	0 1892	0.0010	2.124	0 0053				
Xylenes, Total		0 8779		0.5889		5.039					
Total BTEX		1.2363		0.7438		7.8305					
Percent Moisture	*Extracted:*										
	Analyzed:	Apr-17-08 16.30		Apr-17-08 16:30		Apr-17-08 16:30					
	Units/RL:	%	RL	%	RL	%	RL				
Percent Moisture		1 37		.48		5 79					
TPH By SW8015 Mod	*Extracted:*	Apr-18-08 15:25		Apr-18-08 15.25		Apr-18-08 15:25					
	Analyzed:	Apr-20-08 10:04		Apr-20-08 10:30		Apr-21-08 13:12					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		152	15 2	87 8	15.1	5820	159				
C12-C28 Diesel Range Hydrocarbons		2020	15 2	2210	15.1	30900	159				
C28-C35 Oil Range Hydrocarbons		432	15.2	582	15.1	5180	159				
Total TPH		2604		2879 8		41900					

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Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 301918 **Project ID:** 2008-00028

Lab Batch #: 720343 **Sample:** 301918-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0350	0.0300	117	80-120	
4-Bromofluorobenzene	0.0357	0.0300	119	80-120	

Lab Batch #: 720343 **Sample:** 301918-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0328	0.0300	109	80-120	
4-Bromofluorobenzene	0.0331	0.0300	110	80-120	

Lab Batch #: 720343 **Sample:** 301918-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0355	0.0300	118	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 720343 **Sample:** 301918-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	80-120	
4-Bromofluorobenzene	0.0356	0.0300	119	80-120	

Lab Batch #: 720343 **Sample:** 507702-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0320	0.0300	107	80-120	
4-Bromofluorobenzene	0.0333	0.0300	111	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 301918 **Project ID:** 2008-00028

Lab Batch #: 720343 **Sample:** 507702-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0328	0.0300	109	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 720343 **Sample:** 507702-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0 0300	111	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 720487 **Sample:** 301918-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0262	0.0300	87	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 720487 **Sample:** 301918-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0 0404	0.0300	135	80-120	**

Lab Batch #: 720487 **Sample:** 301918-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0 0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0411	0.0300	137	80-120	**

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 301918 **Project ID:** 2008-00028

Lab Batch #: 720487 **Sample:** 301918-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 720487 **Sample:** 301918-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.9411	0.0300	3137	80-120	**
4-Bromofluorobenzene	0.1545	0.0300	515	80-120	**

Lab Batch #: 720487 **Sample:** 302002-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0354	0.0300	118	80-120	
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

Lab Batch #: 720487 **Sample:** 302002-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0348	0.0300	116	80-120	
4-Bromofluorobenzene	0.0354	0.0300	118	80-120	

Lab Batch #: 720487 **Sample:** 507783-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 301918 **Project ID:** 2008-00028

Lab Batch #: 720487 **Sample:** 507783-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0329	0.0300	110	80-120	
4-Bromofluorobenzene	0.0254	0.0300	85	80-120	

Lab Batch #: 720487 **Sample:** 507783-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0255	0.0300	85	80-120	

Lab Batch #: 720433 **Sample:** 301918-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.2	100	70	70-135	
o-Terphenyl	35.7	50.0	71	70-135	

Lab Batch #: 720433 **Sample:** 301918-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.2	100	70	70-135	
o-Terphenyl	36.3	50.0	73	70-135	

Lab Batch #: 720433 **Sample:** 301918-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.8	100	85	70-135	
o-Terphenyl	43.3	50 0	87	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 301918 **Project ID:** 2008-00028

Lab Batch #: 720433 **Sample:** 301918-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.7	100	95	70-135	
o-Terphenyl	46.8	50.0	94	70-135	

Lab Batch #: 720433 **Sample:** 301918-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.9	100	85	70-135	
o-Terphenyl	43.6	50.0	87	70-135	

Lab Batch #: 720433 **Sample:** 301918-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.2	100	88	70-135	
o-Terphenyl	43.6	50.0	87	70-135	

Lab Batch #: 720433 **Sample:** 301918-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.0	100	87	70-135	
o-Terphenyl	43.2	50.0	86	70-135	

Lab Batch #: 720433 **Sample:** 301918-007 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.8	100	95	70-135	
o-Terphenyl	42.8	50.0	86	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 301918 **Project ID:** 2008-00028

Lab Batch #: 720433 **Sample:** 301918-007 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.5	100	85	70-135	
o-Terphenyl	40.8	50.0	82	70-135	

Lab Batch #: 720433 **Sample:** 301918-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.6	100	78	70-135	
o-Terphenyl	41 8	50.0	84	70-135	

Lab Batch #: 720433 **Sample:** 301918-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	137	100	137	70-135	**
o-Terphenyl	277	50 0	554	70-135	**

Lab Batch #: 720433 **Sample:** 507749-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.2	100	85	70-135	
o-Terphenyl	46.0	50 0	92	70-135	

Lab Batch #: 720433 **Sample:** 507749-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.3	100	81	70-135	
o-Terphenyl	43.4	50.0	87	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 301918 **Project ID:** 2008-00028

Lab Batch #: 720433 **Sample:** 507749-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.2	100	88	70-135	
o-Terphenyl	49.1	50.0	98	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: Pitchfork 8"

Work Order #: 301918 **Project ID:** 2008-00028

Analyst: SHE **Date Prepared:** 04/17/2008 **Date Analyzed:** 04/17/2008

Lab Batch ID: 720343 **Sample:** 507702-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B 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
Benzene	ND	0.1000	0.0817	82	0.1	0.1041	104	24	70-130	35	
Toluene	ND	0.1000	0.0811	81	0.1	0.1032	103	24	70-130	35	
Ethylbenzene	ND	0.1000	0.0937	94	0.1	0.1130	113	19	71-129	35	
m,p-Xylenes	ND	0.2000	0.1938	97	0.2	0.2329	116	18	70-135	35	
o-Xylene	ND	0.1000	0.0946	95	0.1	0 1094	109	15	71-133	35	

Analyst: SHE **Date Prepared:** 04/18/2008 **Date Analyzed:** 04/18/2008

Lab Batch ID: 720487 **Sample:** 507783-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B 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
Benzene	ND	0.1000	0.0900	90	0.1	0.0940	94	4	70-130	35	
Toluene	ND	0.1000	0.0884	88	0.1	0.0920	92	4	70-130	35	
Ethylbenzene	ND	0.1000	0.0944	94	0.1	0.0985	99	4	71-129	35	
m,p-Xylenes	ND	0.2000	0 1945	97	0.2	0.2031	102	4	70-135	35	
o-Xylene	ND	0.1000	0.0903	90	0.1	0.0939	94	4	71-133	35	

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

BS / BSD Recoveries

Project Name: Pitchfork 8"

Work Order #: 301918
Analyst: ASA
Lab Batch ID: 720433
Sample: 507749-1-BKS
Units: mg/kg

Date Prepared: 04/18/2008
Batch #: 1

Project ID: 2008-00028
Date Analyzed: 04/18/2008
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	858	86	1000	866	87	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	952	95	1000	959	96	1	70-135	35	

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

Form 3 - MS / MSD Recoveries

Project Name: Pitchfork 8"

Work Order # : 301918 **Project ID:** 2008-00028

Lab Batch ID: 720487 **QC- Sample ID:** 302002-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/19/2008 **Date Prepared:** 04/18/2008 **Analyst:** SHE

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.0017	0.1083	0.1041	95	0.1083	0.0966	88	8	70-130	35	
Toluene	0.0225	0.1083	0.0938	66	0.1083	0.0888	61	8	70-130	35	X
Ethylbenzene	0.0223	0.1083	0.0932	65	0.1083	0.0961	68	5	71-129	35	X
m,p-Xylenes	0.0911	0.2165	0.1887	45	0.2165	0.1726	38	17	70-135	35	X
o-Xylene	0.0347	0.1083	0.0910	52	0.1083	0.0877	49	6	71-133	35	X

Lab Batch ID: 720433 **QC- Sample ID:** 301918-007 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/20/2008 **Date Prepared:** 04/18/2008 **Analyst:** ASA

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	152	1010	986	83	1010	893	73	13	70-135	35	
C12-C28 Diesel Range Hydrocarbons	2020	1010	2740	71	1010	2230	21	109	70-135	35	XF

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

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

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

Sample Duplicate Recovery

Project Name: Pitchfork 8"

Work Order #: 301918

Lab Batch #: 720286 **Project ID:** 2008-00028

Date Analyzed: 04/17/2008 **Date Prepared:** 04/17/2008 **Analyst:** RBA

QC- Sample ID: 301918-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	1.42	1.42	0	20	

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

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Manager: Ken Dutton — PAGE 01 OF 01 — Project Name: Pitchfork 8"

Company Name: Basin Environmental Service Technologies, LLC — Project #: SRS 2008-00028

Company Address: P. O. Box 301 — Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260 — PO #: PAA - C. J Reynolds

Telephone No: (505) 441-2124 — Fax No: (505) 396-1429 — Report Format: [X] Standard [ ] TRRP [ ] NPDES

Sampler Signature: BK Blackwood — e-mail: kdutton@basinenv.com

(lab use only) ORDER #: 30918

Analyze For: TCLP TOTAL

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: SL - Sludge; DW - Drinking Water; GW - Groundwater; S - Soil/Solid; NP - Non Potable; Specify Other	8015M	TPH 418.1	TPH TX 1005	TX 1006	Cations (Ca Mg Na K)	Anions (Cl, SO4 Alkalinity)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	HCl	NORM	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	Release Point - 12' bgs			11-Apr-08	1120		1	X								SOIL	X										X				X
02	North Wall - 10' bgs			11-Apr-08	1128		1	X								SOIL	X										X				X
03	South Wall - 10' bgs			11-Apr-08	1135		1	X								SOIL	X										X				X
04	East Wall - 10' bgs			11-Apr-08	1143		1	X								SOIL	X										X				X
05	West Wall - 9' bgs			11-Apr-08	1151		1	X								SOIL	X										X				X
06	East Floor - 12' bgs			11-Apr-08	1159		1	X								SOIL	X										X				X
07	West Floor - 12' bgs			11-Apr-08	1210		1	X								SOIL	X										X				X
08	Stockpile			11-Apr-08	1224		1	X								SOIL	X										X				X
09	West Wall - 8' bgs			11-Apr-08	1235		1	X								SOIL	X										X				X

Special Instructions

Relinquished by	Date	Time	Received by	Date	Time
BK Blackwood	4/16/08	4:45		4/16/08	4:45
	4/17/08	8:10			
			Received by ELOT.	4/17/08	8:10

Laboratory Comments.

Sample Containers Intact?	N
VOCs Free of Headspace?	N
Labels on container(s)	N
Custody seals on container(s)	N
Custody seals on cooler(s)	N
Sample Hand Delivered by Sampler/Client Rep ?	N
by Courier? UPS DHL FedEx Lone Star	

Temperature Upon Receipt: 6 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Basin Env / Plains

Date/ Time: 4.17.08 8.10

Lab ID #: 30718

Initials: CL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	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?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	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?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken:

_____

_____

_____

Check all that Apply

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

Analytical Report 304633

for

PLAINS ALL AMERICAN EH&S

Project Manager: Camille Reynolds

Pitchfork 8"

2008-028

30-MAY-08

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215

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

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

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

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

30-MAY-08

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

Reference: XENCO Report No: **304633**
Pitchfork 8"
Project Address: Lea County, NM

Camille Reynolds:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 304633. 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. 304633 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

Sample Cross Reference 304633

PLAINS ALL AMERICAN EH&S, Midland, TX

Pitchfork 8"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East Wall -1 @ 8' bgs	S	May-27-08 13:00		304633-001

Certificate of Analysis Summary 304633

PLAINS ALL AMERICAN EH&S, Midland, TX

Project Name: Pitchfork 8"

Project Id: 2008-028
Contact: Camille Reynolds
Project Location: Lea County, NM

Date Received in Lab: Wed May-28-08 08:35 am
Report Date: 30-MAY-08
Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	304633-001					
	Field Id:	East Wall -1 @ 8' bgs					
	Depth:						
	Matrix:	SOIL					
	Sampled:	May-27-08 13.00					
BTEX by EPA 8021B	*Extracted:*	May-29-08 12:39					
	Analyzed:	May-29-08 13:29					
	Units/RL:	mg/kg	RL				
Benzene		0.0018	0.0010				
Toluene		0 0467	0.0020				
Ethylbenzene		0 0269	0.0010				
m,p-Xylenes		0.2067	0.0020				
o-Xylene		0.1088	0.0010				
Total Xylenes		0.3155					
Total BTEX		0.3909					
Percent Moisture	*Extracted:*						
	Analyzed:	May-28-08 17:00					
	Units/RL:	%	RL				
Percent Moisture		ND	1 00				
TPH by SW8015 Mod	*Extracted:*	May-28-08 12:20					
	Analyzed:	May-28-08 17.08					
	Units/RL:	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		176	75 3				
C12-C28 Diesel Range Hydrocarbons		5620	75.3				
C28-C35 Oil Range Hydrocarbons		1340	75 3				
Total TPH		7136					

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

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 304633 **Project ID:** 2008-028

Lab Batch #: 723909 **Sample:** 304633-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0338	0.0300	113	80-120	
4-Bromofluorobenzene	0.0401	0.0300	134	80-120	**

Lab Batch #: 723909 **Sample:** 509755-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0 0300	92	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 723909 **Sample:** 509755-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0356	0.0300	119	80-120	
4-Bromofluorobenzene	0.0303	0 0300	101	80-120	

Lab Batch #: 723909 **Sample:** 509755-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0 0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 723783 **Sample:** 304633-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	100	96	70-135	
o-Terphenyl	52.3	50.0	105	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Pitchfork 8"

Work Order #: 304633 **Project ID:** 2008-028

Lab Batch #: 723783 **Sample:** 509699-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	49.3	50.0	99	70-135	

Lab Batch #: 723783 **Sample:** 509699-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.4	100	98	70-135	
o-Terphenyl	54.1	50.0	108	70-135	

Lab Batch #: 723783 **Sample:** 509699-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	50.9	50.0	102	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: Pitchfork 8"

Work Order #: 304633 **Project ID:** 2008-028

Analyst: SHE **Date Prepared:** 05/29/2008 **Date Analyzed:** 05/29/2008

Lab Batch ID: 723909 **Sample:** 509755-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B 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
Benzene	ND	0.1000	0.0967	97	0.1	0.0853	85	13	70-130	35	
Toluene	ND	0.1000	0.1031	103	0.1	0.0904	90	13	70-130	35	
Ethylbenzene	ND	0.1000	0.1186	119	0.1	0.1038	104	13	71-129	35	
m,p-Xylenes	ND	0.2000	0.2337	117	0.2	0 2117	106	10	70-135	35	
o-Xylene	ND	0.1000	0.1167	117	0.1	0.1074	107	8	71-133	35	

Analyst: ASA **Date Prepared:** 05/28/2008 **Date Analyzed:** 05/28/2008

Lab Batch ID: 723783 **Sample:** 509699-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1060	106	1000	1070	107	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	1010	101	1000	1020	102	1	70-135	35	

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

Sample Duplicate Recovery

Project Name: Pitchfork 8"

Work Order #: 304633

Lab Batch #: 723811 **Project ID:** 2008-028

Date Analyzed: 05/28/2008 **Date Prepared:** 05/28/2008 **Analyst:** JLG

QC- Sample ID: 304633-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

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

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

Environmental Lab of Texas

a XENCO Laboratory Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone. 432-563-1800
Fax 432-563-1713

Project Manager: Curt Stanley — PAGE 01 OF 01 — Project Name: PITCHFORK 8"

Company Name: Basin Environmental Service Technologies, LLC — Project #: 2008-028

Company Address: P. O. Box 301 — Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260 — PO #: PAA - C. Reynolds

Telephone No: (505) 441-2124 — Fax No: (505) 396-1429 — Report Format: [X] Standard [ ] TRRP [ ] NPDES

Sampler Signature: — e-mail: cstanley@basinenv.com

(lab use only)
ORDER #: 304633

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: GW - Groundwater S - Soil/Solid NP - Non Potable Specify Other	Analyze For: TCLP TOTAL: TPH 418.1 / 8015M	TPH TX 1005	Cations (Ca Mg Na K)	Anions (Cl SO4 Alkalinity)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 / BTEX 8260	RCI	NORM	CHLORIDES	RUSH TAT (Pre-Schedule) 24, 48, 72 Hrs	Standard TAT
01	East Wall -1 @ 8' bgs			27-Apr-08	1300		1	X								SOIL	X								X					X

Special Instructions.

Relinquished by	Date	Time	Received by	Date	Time
	5/26/08	835			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT:	Date	Time
				5-28-08	8:35

Laboratory Comments.

Sample Containers Intact?	N
VOCs Free of Headspace?	N
Labels on container(s)	N
Custody seals on container(s)	N
Custody seals on cooler(s)	N
Sample Hand Delivered	N
by Sampler/Client Rep ?	
by Courier? UPS DHL FedEx Lone Star	
Temperature Upon Receipt	7.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Basin Env / Plains

Date/ Time: 5 28 08 8:35

Lab ID #: 304633

Initials: CL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	-1 °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?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	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?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply

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

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

x Initial Report ☐ Final Report

Name of Company Plains Pipeline	Contact Camille Reynolds
Address 3112 W. US Hwy 82, Lovington, NM 88260	Telephone No. 505-441-0965
Facility Name Pitchfork 8"	Facility Type 8"Steel Pipeline

Surface Owner BLM	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	13	25S	33E					Lea

Latitude 32° 08' 15.7" **Longitude** 103° 31' 30.1"

WTR 200

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 5 barrels	Volume Recovered 0 barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 1/23/2008 @ 16:00	Date and Hour of Discovery 1/23/2008 @ 16:45
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required	If YES, To Whom? Pat Richards	
By Whom? Camille Reynolds	Date and Hour 1/28/2008 @ 8:00	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RECEIVED
FEB 08 2008
HOBBS OCD

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken: Internal corrosion of an 8-inch steel pipeline resulted in release of sweet crude oil. A clamp was installed on the line to mitigate the release. The line is an 8-inch steel gathering line that produces approximately 1,800 barrels of oil per day. The pressure on the line is approximately 60 psi and the gravity of the sweet crude oil is 42. The sweet crude has an H_2S content of <10 ppm. The line is approximately 4 feet bgs at the release point.☐

Describe Area Affected and Cleanup Action Taken.* The initial visual impacted area was approximately 4 feet long by 4 feet wide. At that time the crude oil release was deemed to be a non-reportable release. Upon further excavation of the release area, it was determined to elevate the crude oil release to a reportable status. The impacted soil is being stockpiled on site on a poly liner.

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: Camille Reynolds	OIL CONSERVATION DIVISION
Printed Name: Camille Reynolds	Approved by District Supervisor: ENVIRONMENTAL ENGINEER
Title: Remediation Coordinator	Approval Date: 2.8.08 Expiration Date: 4.8.08
E-mail Address: cjreynolds@paalp.com	Conditions of Approval: Attached ☐
Date: 2/6/2008 Phone:505-441-0965	SUBMIT PLAN / FINAL C-141 IRP-1781

* Attach Additional Sheets If Necessary

f COAO 807051155