

# *Basin Environmental Service Technologies, LLC*

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## **PRELIMINARY SITE INVESTIGATION REPORT and REMEDIATION PLAN**

**PLAINS MARKETING, L.P.  
Maljamar to Lynch Abandoned 10"  
Lea County, New Mexico  
Plains EMS # 2004-00227  
UNIT A (NE/NE), Section 19, Township 20S, Range 34E  
Latitude, Longitude 32°, 33', 55.3" North, 103°, 35', 35.9" West**

Prepared For:

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

Prepared By:

Basin Environmental Service Technologies, LLC  
P. O. Box 301  
Lovington, New Mexico 88260

**14 March 2005**

*Plains - 231735  
Facility - f PAC0604028527  
Inspect - e PAC0604028728  
Incident - n PAC0604028763  
Application - p PAC0604029716*

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Ken Dutton  
Basin Environmental Service Technologies, LLC

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## **INTRODUCTION**

Basin Environmental Service Technologies, LLC (Basin), responded to a pipeline release for Plains Marketing, L.P. (Plains), located on the Maljamar to Lynch Abandoned 10" Pipeline on 09 December 2004. The Maljamar to Lynch Abandoned 10" Pipeline was clamped and the saturated impacted soils were excavated and stockpiled on a poly liner.

This site is located in Unit A (NE/NE), Section 19, Township 20 South, Range 34 East, in Lea County, New Mexico (topographic Site Location Map is attached as Figure 1). The latitude is 32°, 33', 55.3" North and the longitude is 103°, 35', 35.9" West. The site is characterized by a right-of-way for the pipeline in a pasture utilized for cattle grazing. The visible surface stained area includes the release point covering an area approximately 181 feet long by 50 feet wide. An estimated 120 barrels of crude oil were released from the Plains Pipeline and 100 barrels were recovered.

An Emergency One-Call was initiated 09 December 2004 and all responding companies either cleared or marked their respective lines. Subsequent renewals of the one-call have been accomplished as required.

Mr. James Amos, Bureau of Land Management (BLM), Carlsbad, New Mexico Office, was verbally notified 09 December 2004. Mr. Paul Sheeley, New Mexico Oil Conservation Division (NMOCD), Hobbs, New Mexico District 1 was verbally notified of the release on 09 December 2004.

## **SUMMARY OF FIELD ACTIVITIES**

On 09 December 2004, Basin arrived at the Maljamar to Lynch Abandoned 10" Pipeline release to repair and contain the crude oil pipeline release under the direction of Plains operations personnel. After the release had been contained utilizing a pipeline repair clamp, excavation of the impacted soil was accomplished (see Figure 2, Site Map). The release point and visually stained area was excavated to approximately 181 feet long by 50 feet wide and 6 feet below ground surface (bgs). All excavated soil was placed on a poly liner for future remedial action.

On 03 January 2005, delineation soil samples were collected from the floor and sidewalls of the excavated areas (see Figure 3, Sampling Locations & Proposed Soil Boring Location). Soil samples were collected and screened with a Photoionization Detector (PID), calibrated 03 January 2005. The soil samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and total petroleum hydrocarbons – gasoline range organics/diesel range organics (TPH-GRO/DRO) (see Table 1, Soil Chemistry). Laboratory results indicate that the area immediately surrounding the release point is above NMOCD regulatory standards and the remaining excavated area (flow path) is below NMOCD regulatory standards. Further excavation of the site (release point) was suspended and an archeological survey was requested pursuant to BLM directives.

## **RECOMMENDATIONS FOR REMEDIATION/CLOSURE**

Approximately 750 cubic yards of impacted soil has been excavated and stockpiled on-site resulting from the emergency response and pipeline repair. Based on the preliminary soil delineation investigation, the release point will require further vertical delineation and excavation. Confirmation soil sample analytical results indicate the remaining excavation (flow path) is below NMOCD regulatory standards for BTEX and TPH constituent concentrations.

Plains proposes to mobilize a drill rig and install a soil boring to determine the vertical depth of the hydrocarbon-impacted soil at the release point. During the installation of the release point soil boring, soil samples will be collected at 5 feet intervals and field screened with a PID. The selected soil samples will be analyzed for BTEX and TPH constituent concentrations.

Once the vertical hydrocarbon-impact has been determined at the release point, further excavation of the release point area will be initiated to a maximum depth of 15 feet bgs. If the hydrocarbon-impacted soil extends beyond the 15 feet bgs level, a risk-based closure will be evaluated, due to the depth to groundwater and lack of receptors in the area. Confirmation soil sampling of the proposed release point excavation will be conducted upon completion of additional soil excavation (based upon the results of the vertical delineation soil boring), in accordance with NMOCD procedures. The excavated soils will be transported to the Plains Lea Station Land Farm. The excavation will be backfilled with indigenous soil approved by the NMOCD and BLM. Once backfilling has occurred, the area will be contoured to the original rangeland surrounding the site and reseeded with approved BLM grass seed.

Amendments to this report will be submitted to NMOCD and BLM upon receipt of the soil boring analytical results with a remedial plan to close the site.

## **QA/QC PROCEDURES**

### **Soil Sampling**

Soil samples were delivered to Environmental Lab of Texas, Inc. in Odessa, Texas for BTEX, TPH analyses using the methods described below. Soil samples were analyzed for BTEX, TPH-GRO/DRO within fourteen days following the collection date.

The soil samples were analyzed as follows:

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

## **Decontamination Of Equipment**

Cleaning of the sampling equipment will be the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment will be cleaned with Liqui-Nox<sup>®</sup> detergent and rinsed with distilled water.

## **Laboratory Protocol**

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

## **LIMITATIONS**

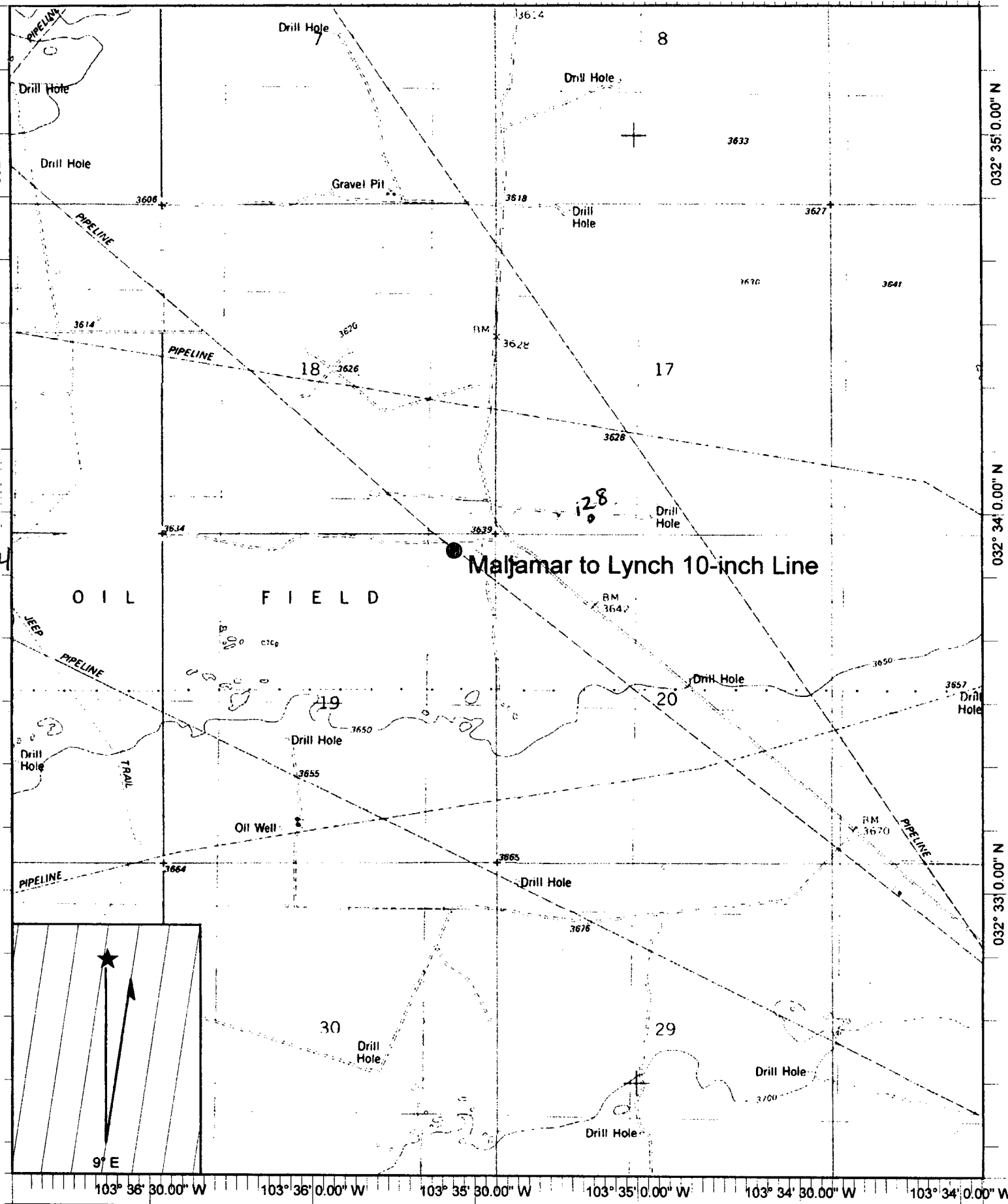
Basin Environmental Service Technologies, LLC, has prepared this Preliminary Investigation Report and Work Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

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 Plains Marketing, L.P.

## DISTRIBUTION

- Copy 1: Jeff Dann  
Plains All American  
333 Clay Street  
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Houston, Texas 77002  
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U.S. Department of the Interior  
Bureau of Land Management  
620 E. Greene St.  
P. O. Box 1778  
Carlsbad, New Mexico, 88220  
[James\\_Amos@nm.blm.gov](mailto:James_Amos@nm.blm.gov)
- Copy 4: Mr. Larry Johnson  
New Mexico Oil Conservation Division  
Francis Drive  
Hobbs, New Mexico 88240  
[LWJohnson@state.nm.us](mailto:LWJohnson@state.nm.us)
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Lovington, New Mexico 88260  
[kdutton@basinenv.com](mailto:kdutton@basinenv.com)
- Copy \_\_\_\_\_



Name: LEA  
 Date: 2/4/2005  
 Scale: 1 inch equals 2000 feet

Location: 032° 33' 47.52" N 103° 35' 25.74" W  
 Caption: Plains Marketing  
 Maljamar to Lynch 10" Line

**PLAINS MARKETING, L.P.  
MALJAMAR TO LYNCH ABANDONED 10"  
LEA COUNTY, NEW MEXICO  
EMS: 2004-00227**

SAMPLE LOCATION	SAMPLE DEPTH	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL
			BENZENE	TOLUENE	ETHYL-BENZENE	M,P-XYLENES	O-XYLENE	GRO	DRO	
Stockpile East	6'	01/03/05	0.233	6.98	24.4	38.7	18.8	6100	16600	22700
Stockpile West	6'	01/03/05	0.091	4.25	13.7	16.9	7.7	4400	16500	20900
West Exc N/SW	3'	01/03/05	<0.025	<0.025	0.115	0.308	0.156	416	1720	2130
West Exc W/SW	3'	01/03/05	<0.025	0.203	1.41	2.31	1.27	327	701	1030
West Exc Floor	6'	01/03/05	<0.025	<0.025	<0.025	<0.025	<0.025	12.6	98.3	111
RP East Sidewall	3'	01/03/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
RP Floor North	6'	01/03/05	<0.025	0.025	0.203	0.48	0.319	185	527	712
RP Floor South	6'	01/03/05	26.2	118	105	102	44.6	8320	10900	19200
Valve SW	3'	01/03/05	<0.025	<0.0125	0.042	0.073	0.04	<10.0	39.6	39.6



## **NEW MEXICO OIL CONSERVATION DIVISION (NMOCD) SOIL CLASSIFICATION**

A search of the New Mexico State Engineers database revealed no groundwater depth information for that section. However, Section 24 in the same Township and Range contains groundwater information revealing an average depth to groundwater of 270 feet bgs. There are no surface water bodies or water wells within 1000 feet of the release site. Based on this data, the site has an NMOCD Ranking Score of 0 –9, which sets the remediation levels at:

Benzene: 10 ppm

BTEX: 50 ppm

TPH: 5000 ppm

## **DISTRIBUTION OF HYDROCARBONS IN THE USATURATED ZONE**

The release point and visually stained area has been excavated to a depth of approximately 6 feet bgs and evidence of crude oil impact still exists on the floor at the release point. PID readings and laboratory results indicated elevated concentrations of Volatile Organic Compounds (VOC) remain. Vertical delineation of the release point site will be required to determine the depth of crude oil impact. Soil samples were analyzed for concentrations of BTEX and TPH. Laboratory data sheets and chain-of-custody forms are attached (Appendix C).

Delineation soil samples were collected, as depicted on the Sampling Locations & Proposed Soil Boring Location (Figure 3), from the sidewalls and floor of the excavated areas at a depth of 6 feet bgs for the floor and 3 feet bgs for the sidewalls. Analytical results indicate BTEX and TPH constituent concentrations were below NMOCD regulatory standards on all soil samples with the exception of the release point. The release point analytical results indicate BTEX and TPH constituent concentrations exceeded NMOCD regulatory standards at a depth of 6 feet bgs at 395 mg/kg and 19,200 mg/kg, respectively. Further excavation of the site (release point) was suspended and an archeological survey was requested pursuant to BLM directives.

## **ARCHEOLOGICAL SURVEY RESULTS**

Boone Archeological Services, LLC, Carlsbad, New Mexico, conducted an archeological survey of the site, in accordance with BLM directives. Results of the archeological survey did not find evidence of cultural resources present, and therefore, recommended archeological clearance. A copy of the archeological survey is included in Appendix D.



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

April 6, 2005

Plains All American(Plains)

Attn: Jeff Dann

333 Clay Street, Suite 1600

Midland, TX 77200

Re: **Maljamar to Lynch Abandon 10" (REVISION)**

Preliminary Site Work Plan Approval - Pipeline Spill Remediation

UL-A, Sec.19, T20S-R34E

Dated: March 22, 2005, Basin Environmental Service Technologies, LLC.

Dear Mr. Dann,

The New Mexico Oil Conservation Division (OCD) has reviewed the closure proposal submitted for Plains by Basin Environmental Service Technologies, LLC, and referenced above. The proposal is hereby approved according to the information provided, including the following:

- Plains shall advance the borehole at the release point to a depth of at least 15 ft. past background levels of hydrocarbon, (TPH & BTEX), impacted material.
- Contact OCD before plugging borehole.
- If groundwater or a confining layer are encountered, Plains shall, stop notify OCD and submit a revised work plan for OCD approval.

Please be advised that OCD approval does not relieve Plains of liability should operations result in pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Plains of responsibility for compliance with other federal, state or local laws and/or regulations.

If you have any questions or need any assistance call: (505) 393-6161 x113 or email: [psheeley@state.nm.us](mailto:psheeley@state.nm.us)

Sincerely,

Paul Sheeley-Environmental Engineer

Cc: Roger Anderson - Environmental Bureau Chief

Chris Williams - District I Supervisor

Larry Johnson - Environmental Engineer

Camille Reynolds - Plains

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1501 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Hachas 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 Marketing, LP	Contact Camille Reynolds
Address 51805 East Hwy. 80, Midland, TX 79706	Telephone No. 505-441-0965
Facility Name Maljamar to Lynch 10 Inch	Facility Type 10" Steel Pipeline

Surface Owner BLM	Mineral Owner	Lease No.
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#### LOCATION OF RELEASE

Unit Letter A	Section 19	Township 20S	Range 34E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
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Latitude 32°33'55.3"

Longitude 103°35'35.9"

#### NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 120 barrels	Volume Recovered 100 barrels
Source of Release 10" Steel Pipeline	Date and Hour of Occurrence 12/9/04 @ 08:00	Date and Hour of Discovery 12/9/04 @ 08:30
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Paul Shockey	
By Whom? Camille Reynolds	Date and Hour 12/9/04 @ 14:30	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 the idle 10" steel gathering pipeline. A clamp was installed on the line to mitigate the release. The line is inactive so information concerning volume produced and pressure on line is unavailable.

Describe Area Affected and Cleanup Action Taken.\* A clamp was installed on the line to mitigate the release. The sour crude oil was vacuumed up and the impacted soil was excavated and stockpiled on plastic. The aerial extent of surface impact was approximately 181' x 50'.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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 NMOC 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, NMOC 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: <i>Camille Reynolds</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:
E-mail Address: cireynolds@psmlp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date 12/10/04	Phone: 505-441-0965	

Attach Additional Sheets If Necessary