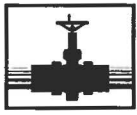


**1R-85**

**Plains  
Red Byrd #1**

**Annual Report  
2013**



# PLAINS ALL AMERICAN

March 18, 2014

Mr. Jim Griswold  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Plains All American – 2013 Annual Monitoring Report  
1 Site in Lea County, New Mexico

Dear Mr. Griswold:

Plains All American is an operator of crude oil pipelines and terminal facilities in the state of New Mexico. Plains All American actively monitors certain historical release sites exhibiting groundwater impacts, consistent with assessments and work plans developed in consultation with the New Mexico Oil Conservation Division (NMOCD). In accordance with the rules and regulations of the NMOCD, Plains All American hereby submits an Annual Monitoring report for the following site:

Red Byrd #1                                      1R-0085                                      Section 01, T20S, R36E, Lea County

Please note that the 2013 Annual Monitoring Report for the subject site includes a request for site closure, soil remediation activities were previously closed.

Basin Environmental Service Technologies, LLC (Basin) prepared this document and has vouched for its accuracy and completeness, and on behalf of Plains All American, I have personally reviewed the document and interviewed Basin personnel in order to verify the accuracy and completeness of the report. It is based upon these inquiries and reviews that Plains All American submits the enclosed Annual Monitoring Report for the above facility.

If you have any questions or require further information, please contact me at (575) 441-1099.

Sincerely,

Camille Bryant  
Remediation Coordinator  
Plains All American

CC: Geoff Leking, NMOCD, Hobbs, NM

Enclosures

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, 2007

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

## Release Notification and Corrective Action

### OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Plains Marketing, LP	Contact	Camille Bryant
Address	2530 State Hwy. 214, Denver City, TX 79323	Telephone No.	(575) 441-1099
Facility Name	Red Byrd #1	Facility Type	Steel Pipeline

Surface Owner	Red Byrd	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
H	1	20S	36E					Lea

Latitude N 32° 36' 09.8" Longitude W 103° 17' 58.5"

### NATURE OF RELEASE

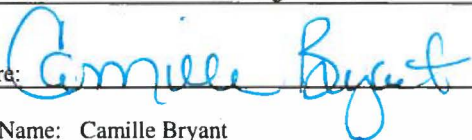
Type of Release	Crude Oil	Volume of Release	Unknown	Volume Recovered	
Source of Release	Steel Pipeline	Date and Hour of Occurrence		Date and Hour of Discovery	
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required		If YES, To Whom?		
By Whom?			Date and Hour		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input type="checkbox"/> No		If YES, Volume Impacting the Watercourse.		

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* **NOTE: Texas-New Mexico Pipeline was the owner/operator of the pipeline system at the time of the release, and initial response information is unavailable.**

Describe Area Affected and Cleanup Action Taken. Approximately 8,900 cubic yards of impacted soil was excavated, shredded and blended with nutrients. Approximately 3,700 cubic yards of the impacted soil was transported to Plains Lea Station to be used as berm material. The excavation was backfilled with the blended soil. Approximately 3,500 cubic yards of topsoil was transported to the site, and the area was contoured to topographic grade. A total of nineteen (19) monitoring wells were installed at the release site from February 2000 through August 2008, and groundwater monitoring and PSH recovery activities were conducted from February 2000 through January 2014. See Plains Marketing, LP, *Red Byrd Ranch Historical Remediation Summary and Soil Closure Request*, dated October 2009 (NMOCD Reference #1R-1299; approved December 9, 2009), for complete details of soil remediation activities conducted at the release site. Please reference the attached *2013 Annual Monitoring Report & Groundwater Closure Request* for a summary of groundwater remediation activities conducted at the 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: 		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Camille Bryant		Approved by District Supervisor:	
Title: Remediation Coordinator		Approval Date:	Expiration Date:
E-mail Address: cjbryant@paalp.com		Conditions of Approval:	
Date: 3/31/2014 Phone: (575) 441-1099		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

# *Basin Environmental Service Technologies, LLC*

3100 Plains Highway  
P. O. Box 301  
Lovington, New Mexico 88260

**[bjarguijo@basinenv.com](mailto:bjarguijo@basinenv.com)**

Office: (575) 396-2378

Fax: (575) 396-1429



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## **2013 ANNUAL MONITORING REPORT & GROUNDWATER CLOSURE REQUEST**

### **RED BYRD #1**

**Unit Letter "H" (SE/NE), Section 1, Township 20 South, Range 36 East**

**Latitude 32° 36' 10.15" North, Longitude 103° 18' 00.35" West**

**Lea County, New Mexico**

**Plains SRS Number: TNM Red Byrd #1**

**NMOCD Reference Number: 1R-0085**

Prepared for:



Plains Marketing, LP  
333 Clay Street, Suite 1600  
Houston, Texas 77002

Prepared By:

Basin Environmental Service Technologies, LLC

P. O. Box 301

Lovington, New Mexico 88260

**March 2014**

---

Ben J. Arguijo  
Project Manager

## **TABLE OF CONTENTS**

INTRODUCTION.....	1
SITE DESCRIPTION & BACKGROUND INFORMATION.....	1
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Figure 1 – Site Location Map

Figure 2A – Inferred Groundwater Gradient Map – 1Q2013

Figure 2B – Inferred Groundwater Gradient Map – 2Q2013

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Figure 3A – Groundwater Concentration & Inferred PSH Extent Map – May 2013

Figure 3B – Groundwater Concentration & Inferred PSH Extent Map – November 2013

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Table 1 – 2013 Groundwater Elevation Data

Table 2 – Groundwater Elevation Data - Curtailment Period

Table 3 – Concentrations of Benzene & BTEX in Groundwater

## **APPENDICES**

Appendix A – Laboratory Analytical Reports

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

## INTRODUCTION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Plains Pipeline, LP (Plains), is pleased to submit this *Annual Monitoring Report & Groundwater Closure Request* in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1st of each year. This report is intended to be viewed as a complete document with text, figures, tables, and appendices. This report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2013 only. For reference, a "Site Location Map" is provided as Figure 1.

Groundwater monitoring was conducted during each quarter of 2013 to assess the levels and extent of dissolved phase constituents and Phase-Separated Hydrocarbon (PSH). The groundwater monitoring events consisted of measuring static water levels in the monitor wells, checking for the presence of PSH, and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 feet were not sampled.

## SITE DESCRIPTION & BACKGROUND INFORMATION

The site is located approximately four (4) miles southwest of the town of Monument, New Mexico. The legal description of the site is Unit Letter "H" (SE/NE), Section 1, Township 20 South, Range 36 East. The geographic coordinates of the site are 32° 36' 10.15" North latitude and 103° 18' 00.35" West longitude.

In January 2000, evidence of a historical release was discovered by the landowner, Mr. Red Byrd, and brought to the attention of Enron Oil Trading and Transportation (EOTT), who acquired the pipeline from Texas New Mexico Pipeline Company in 1999. On January 1, 2009, Basin assumed oversight of groundwater daily operations, sampling, and reporting at the release site.

Approximately 8,900 cubic yards (cy) of impacted soil was excavated, shredded, and blended with nutrients. Approximately 3,700 cy of the impacted soil was transported to Plains Lea Station Landfarm (Discharge Permit #GW-351) to be used as berm material. On completion of excavation activities, confirmation soil samples were collected from the excavation and stockpiles. Review of laboratory analytical results indicated soil samples collected from the excavation were less than NMOCD regulatory standards. The excavation was backfilled with the blended soil, approximately 3,500 cubic yards of topsoil was transported to the site, and the area was contoured to topographic grade.

At the Red Byrd #1 site, two areas of hydrocarbon impact related to the Plains pipeline have been identified as Red Byrd #1 and Red Byrd Ranch Historical. The first area of impact (Red Byrd #1) is centered on and around monitor well MW-1. The second area of impact (Red Byrd Ranch Historical – 1R 1299) related to the Plains pipeline is the subject of this Annual Monitoring Report and is centered on monitor well MW-12. The soil issues at the Red Byrd #1 and Red Byrd Ranch Historical sites have been remediated, and groundwater monitoring and sampling are ongoing. For the purpose of groundwater monitoring, the remaining activities at the site are conducted at Red Byrd #1.

On November 17, 2008, Plains assigned excavation oversight of the Red Byrd Ranch Historical release site to Basin. On December 10, 2008, Basin resumed excavation activities at the release site, and on September 9, 2009, backfilling and restoration activities at the Red Byrd Ranch Historical release site were completed.

During sampling conducted in the first quarter of 2009, additional groundwater samples were collected from each of the nineteen (19) on-site monitor wells and analyzed for concentrations of chloride and total dissolved solids (TDS). The analytical results indicated elevated TDS concentrations, in excess of 10,000 mg/L, were present in fifteen (15) monitor wells. On September 9, 2009, Plains requested NMOCD

approval to plug and abandon monitor wells exhibiting TDS concentrations exceeding 10,000 mg/L (MW-1, MW-3, MW-4, MW-5, MW-8, MW-9, MW-10, MW-13, MW-14, MW-15, MW-16, and MW-19). Plains requested monitor wells associated with the ongoing groundwater issues at the Red Byrd Ranch Historical release (MW-6, MW-7, MW-11, MW-12, MW-17, and MW-18) be placed on a semi-annual sampling schedule to monitor the Red Byrd Ranch Historical PSH plume.

On October 2, 2009, Plains received NMOCD approval to reduce the sampling frequency for monitor wells MW-6, MW-7, MW-11, MW-12, MW-16, MW-17, MW-18, and MW-19 to a semi-annual schedule, and plug and abandon monitor wells MW-1, MW-3, MW-4, MW-5, MW-8, MW-9, MW-10, MW-13, MW-14, and MW-15.

In October 2009, a *Red Byrd Ranch Historical Remediation Summary and Soil Closure Request* was submitted to the NMOCD Santa Fe Office. On December 9, 2009, Plains received correspondence from the NMOCD Santa Fe Office, indicating the report was accepted and no further soil remediation was required at the site.

On October 29, 2009, monitor wells MW-1, MW-3, MW-4, MW-5, MW-8, MW-9, MW-10, MW-13, MW-14, and MW-15 were plugged and abandoned by a State of New Mexico licensed water well driller, as approved by the NMOCD. Monitor well MW-2 was plugged on November 9, 2006. Following the plugging activities, plugging reports were submitted to the NMOCD Santa Fe Office.

Currently, eight (8) monitor wells (MW-6, MW-7, MW-11, MW-12, MW-16, MW-17, MW-18, and MW-19) are located on the Red Byrd #1 site. Monitor wells MW-6, MW-7, MW-11, MW-16, MW-17, MW-18, and MW-19 are gauged quarterly and sampled on a semi-annual schedule. Monitor well MW-12 is gauged weekly but not sampled due to the presence of PSH.

## **FIELD ACTIVITIES**

### **Groundwater Monitoring**

The on-site monitor wells were gauged and sampled on May 30 and November 19, 2013. During these semi-annual sampling events, the monitoring wells were purged of a minimum of three (3) well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos pump. Groundwater was allowed to recharge, and samples were obtained using disposable Teflon bailers. Water samples were stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a trailer-mounted polystyrene tank and disposed of at an NMOCD-approved disposal facility near Monument, New Mexico.

Locations of the groundwater monitoring wells and the inferred groundwater elevations, which were constructed from measurements collected during each quarter of 2013, are depicted in Figures 2A through 2D. The "Groundwater Gradient Map" from the most recent gauging event (Figure 2D, November 19, 2013) indicates a general gradient of approximately 0.002 feet/foot to the southeast as measured between groundwater monitor wells MW-18 and MW-19.

On November 19, 2013, the corrected groundwater elevation ranged between 3,530.15 and 3,532.67 feet above mean sea level in monitor wells MW-19 and MW-18, respectively. The "2013 Groundwater Elevation Data" is provided as Table 1.

## **Product Recovery Efforts**

According to historical data, a measurable thickness of PSH began being detected in monitor well MW-12 on February 14, 2007. Basin began manual, weekly gauging and recovery of PSH from MW-12 in January 2009. Approximately 455 gallons (10.8 barrels) of PSH has been recovered from MW-12 since recovery operations began in 2009, and approximately 139 gallons (3.3 barrels) of PSH was recovered from MW-12 during the 2013 reporting period. The average PSH thickness measured in MW-12 during the reporting period was 1.43 feet, and the maximum PSH thickness was 2.12 feet on April 12, 2013. All recovered fluids are disposed of at an NMOCD- approved disposal facility near Monument, New Mexico.

Pursuant to NMOCD request, a curtailment of PSH recovery activities commenced in August 2012 and continued through March 2013. The purpose of the curtailment period was to allow for the observance of the PSH level in monitor well MW-12 in the absence of weekly PSH recovery efforts. During the curtailment period, site activities were limited to a monthly groundwater gauging event. The average PSH thickness measured in MW-12 during the curtailment period was 1.90 feet. PSH thickness ranged from 1.40 feet on November 19, 2013, to 2.03 feet on December 31, 2013, and February 20, 2013. Gauging data collected during the curtailment period is provided in Table 2, "Groundwater Elevation Data - Curtailment Period".

Comparison of PSH levels observed during the curtailment period and those observed during the quarterly monitoring events (when weekly recovery was ongoing) reveals that there were no significant changes in subsurface conditions during the curtailment period, further indicating that there is likely minimal source material remaining in the subsurface. Please reference Tables 1 and 2 for additional information.

## **LABORATORY RESULTS**

Groundwater samples collected from the monitor wells during the semi-annual sampling events (May and November 2013) were delivered to Xenco Laboratories in Odessa, Texas, for determination of benzene, toluene, ethylbenzene, and total xylene (BTEX) concentrations by EPA Method SW846-8021b. A summary of benzene and BTEX constituent concentrations is presented in Table 3, "2013 Concentrations of Benzene & BTEX in Groundwater". Laboratory analytical reports are provided as Appendix A. "Groundwater Concentration & Inferred PSH Extent" maps are provided as Figures 2A and 2B.

For the purposes of this annual monitoring report, laboratory analytical results were compared to NMOCD regulatory limits based on the New Mexico groundwater standards found in section 20.6.2.3103 of the New Mexico Administrative Code (NMAC). However, it should be noted that, due to the TDS concentrations in the groundwater in the immediate area, the closure criteria for this site is not based on the standards noted above.

### **Monitor well MW-6**

Laboratory analytical results indicated benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMOCD regulatory standards in both the May and November 2013 sampling events.

### **Monitor well MW-7**

Laboratory analytical results indicated benzene, toluene, ethylbenzene, and total xylene concentrations were both less than the appropriate laboratory MDL and less than NMOCD regulatory standards in both the May and November 2013 sampling events.



### **Monitor well MW-11**

Laboratory analytical results indicated benzene concentrations ranged from 0.0052 mg/L in November 2013 to 0.0362 mg/L in May 2013. Toluene concentrations ranged from 0.0022 mg/L in November 2013 to 0.0048 mg/L in May 2013. Ethylbenzene concentrations ranged from 0.0066 mg/L in November 2013 to 0.0116 mg/L in May 2013. Total xylene concentrations ranged from 0.0091 mg/L in November 2013 to 0.0137 mg/L in May 2013. Benzene concentrations exceeded NMOCD regulatory standards in May 2013. Toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards in both the May and November 2013 sampling events.

### **Monitor well MW-12**

Monitor well MW-12 was not sampled during the 2013 reporting period due to the presence of PSH in the monitor well.

### **Monitor well MW-16**

Laboratory analytical results indicated benzene concentrations ranged from 0.0027 mg/L in May 2013 to 0.0053 mg/L in November 2013. Toluene concentrations were less than the laboratory MDL both the May and November 2013 sampling events. Ethylbenzene concentrations ranged from 0.0036 mg/L in May 2013 to 0.0040 mg/L in November 2013. Total xylene concentrations ranged from 0.0048 mg/L in May 2013 to 0.0064 mg/L in November 2013. Benzene, toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards in both the May and November 2013 sampling events.

### **Monitor well MW-17**

Laboratory analytical results indicated benzene concentrations ranged from 0.007 mg/L in May 2013 to 0.029 mg/L in November 2013. Toluene concentrations were less than the laboratory MDL in both the May and November 2013 sampling events. Ethylbenzene concentrations ranged from 0.0039 mg/L in May 2013 to 0.0129 mg/L in November 2013. Total xylene concentrations ranged from 0.004 mg/L in May 2013 to 0.0132 mg/L in November 2013. Benzene concentrations exceeded NMOCD regulatory standards in November 2013. Toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards in both the May and November 2013 sampling events.

### **Monitor well MW-18**

Laboratory analytical results indicated benzene concentrations ranged from less than the laboratory MDL in November 2013 to 0.0029 mg/L in May 2013. Toluene concentrations ranged from 0.0024 mg/L in November 2013 to 0.0077 mg/L in May 2013. Ethylbenzene concentrations ranged from less than the laboratory MDL in November 2013 to 0.003 mg/L in May 2013. Total xylene concentrations ranged from less than the laboratory MDL in November 2013 to 0.0106 mg/L in May 2013. Benzene, toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards in both the May and November 2013 sampling events.

### **Monitor well MW-19**

Laboratory analytical results indicated benzene concentrations ranged from less than the laboratory MDL in November 2013 to 0.0016 mg/L in May 2013. Toluene, ethylbenzene, and total xylene concentrations were less than the appropriate laboratory MDL in both the May and November 2013 sampling events. Benzene, toluene, ethylbenzene, and total xylene concentrations were less than NMOCD regulatory standards in both the May and November 2013 sampling events.

## **SUMMARY**

This report presents the results of monitoring activities for the 2013 annual monitoring period. Currently, there are eight (8) groundwater monitor wells (MW-6, MW-7, MW-11, MW-12, MW-16, MW-17, MW-18, and MW-19) on-site.

On October 29, 2009, monitor wells MW-1, MW-3, MW-4, MW-5, MW-8, MW-9, MW-10, MW-13, MW-14 and MW-15 were plugged and abandoned by a State of New Mexico licensed water well driller, as approved by the NMOCD. Following the plugging activities, plugging reports were submitted to the NMOCD Santa Fe Office. Monitor well MW-2 had previously been abandoned on November 9, 2006.

The "Groundwater Gradient Map" from the most recent gauging event (Figure 2D, November 12, 2013) indicates a general gradient of approximately 0.002 feet/foot to the southeast as measured between groundwater monitor wells MW-18 and MW-19.

A measurable thickness of PSH was detected in monitor well MW-12 throughout the 2013 reporting period. A total of 139 gallons (3.3 barrels) of PSH was recovered from MW-12 during the 2013 reporting period. The average PSH thickness measured in MW-12 during the reporting period was 1.43 feet, and the maximum PSH thickness was 2.12 feet on April 12, 2013.

Pursuant to NMOCD request, a curtailment of PSH recovery activities commenced in August 2012 and continued through March 2013 to allow for the observance of the PSH level in monitor well MW-12 in the absence of weekly PSH recovery efforts. The average PSH thickness measured in MW-12 during the curtailment period was 1.90 feet. PSH thickness ranged from 1.40 feet on November 19, 2013, to 2.03 feet on December 31, 2013, and February 20, 2013.

Comparison of PSH levels observed during the curtailment period and those observed during the quarterly monitoring events (when weekly recovery was ongoing) reveals that there were no significant changes in subsurface conditions during the curtailment period, further indicating that there is likely minimal source material remaining in the subsurface.

Review of laboratory analytical results generated from analysis of groundwater samples collected during the 2013 reporting period indicates benzene concentrations exceeded NMOCD regulatory standards in monitor wells MW-11 (May 2013) and MW-17 (November 2013).

## **GROUNDWATER CLOSURE REQUEST**

Findings noted during the curtailment period, analysis of the efficacy of past PSH recovery efforts (both manual and by Mobile Dual Phase Extraction), and review of historical documentation (among other factors), indicates that continued groundwater monitoring and recovery efforts at the Red Byrd #1 release site will have little to no effect in the long-term.

Since groundwater recovery activities commenced in 2009, PSH levels in monitor well MW-12 have failed to improve and continue to fluctuate considerably. The average PSH thickness during the 2009 monitoring period was 2.09 feet, whereas the PSH thickness during the 2013 monitoring period ranged from 0.90 feet on May 24, 2013, to 2.12 on April 12, 2013.

Comparison of PSH levels observed during the curtailment period and those observed during the quarterly monitoring events (when weekly recovery was ongoing) reveals that there were no significant changes in subsurface conditions during the curtailment period, indicating that there is likely minimal source material remaining in the subsurface. Please reference Table 2 for additional information.

There is strong evidence to suggest that at least some of the groundwater contamination at the Red Byrd #1 site is attributable to an off-site source. Laboratory analytical results from groundwater samples collected during the first quarter 2009 from the nineteen (19) monitor wells on-site at the time indicated elevated TDS concentrations, in excess of 10,000 mg/L, were present in fifteen (15) monitor wells. Monitor wells located up-gradient of the Red Byrd #1 and Red Byrd Ranch Historical releases exhibited elevated TDS concentrations, as well as the monitor wells associated with the release(s). Based on the up-gradient position of the monitor wells containing elevated TDS and the presence of numerous (20-plus) pipelines in the area, abandoned pits located northwest and south of the releases, numerous facility and drilling pads, production wells, a refinery and a chemical plant all within one-half mile of the release site, there are multiple potential responsible parties contributing to the contaminant plume. The NMWQCC regulations state groundwater exhibiting TDS concentrations in excess of 10,000 mg/L is not abatable.

A search of the NMOCD's online "Imaging" system reveals at least two (2) releases that may have impacted or had the potential to impact groundwater in Unit Letter "H" (SE/NE), Section 1, Township 20 South, Range 36 East. Review of NMOCD Environmental Order #1RP-1738 indicates that vertical delineation of the 2007 release was never achieved. A "Disclosure Report" included in the documentation for NMOCD Environmental Order #1RP-427-178 (2004) states that the "NMOCD has been notified of potential groundwater impact at this location." There is no documentation or evidence to suggest that either of these releases has been remediated as of the time of this report.

In addition, given the distances between monitor well MW-12 and monitor well MW-17 (approximately 350 feet), as well as their somewhat cross-gradient locations, it is not likely that the benzene concentrations noted in MW-17 are related to the groundwater contamination in MW-12.

Based on the information summarized above, Basin Environmental and Plains believe that continued groundwater monitoring and recovery efforts at the Red Byrd #1 release site are technically impracticable. Plains hereby requests permission to cease groundwater monitoring and recovery activities at the site and to plug and abandon the eight (8) on-site monitor wells. Plains respectfully requests that the NMOCD grant groundwater closure status to the Red Byrd #1 release site.

Pending NMOCD approval, the eight (8) on-site monitor wells will be plugged and abandoned pursuant to NMOSE and NMOCD regulatory requirements. A monitor well plugging report will be submitted to the NMOCD Santa Fe District Office within thirty (30) calendar days of completion.

## **LIMITATIONS**

Basin Environmental Service Technologies, LLC, has prepared this *Annual Monitoring Report & Groundwater Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin has not conducted an independent examination of the facts contained in referenced materials and statements. Basin has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin 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.

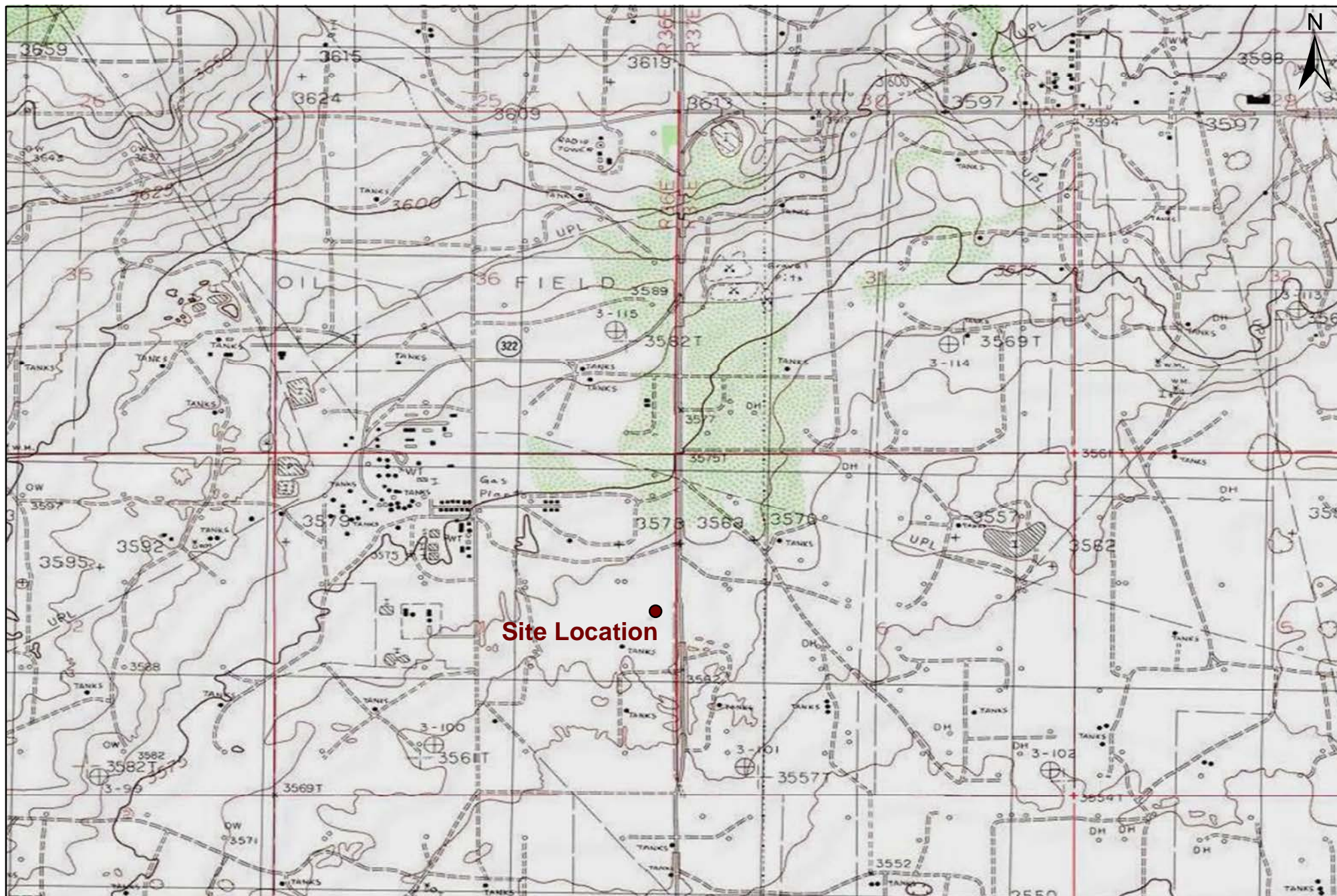
This report has been prepared for the benefit of Plains Marketing, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or Plains Marketing, LP.

## **DISTRIBUTION**

- Copy 1: Jim Griswold  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
jim.griswold@state.nm.us
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1625 N. French Drive  
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GeoffreyR.Leking@state.nm.us
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2530 State Highway 214  
Denver City, Texas 79323  
cjbryant@paalp.com
- Copy 5: Jackie Byrd  
P.O. Box 32  
Monument, NM 88265
- Copy 6: Basin Environmental Service Technologies, LLC  
P. O. Box 301  
Lovington, New Mexico 88260  
bjarguijo@basinenv.com

# Figures





1,000 500 0 1,000 2,000  
 Distance in Feet

Figure 1  
 Site Location Map  
 Plains Pipeline, LP  
 Red Byrd #1  
 Lea County, New Mexico  
 SRS # TNM Red Byrd #1  
 1RP-0085

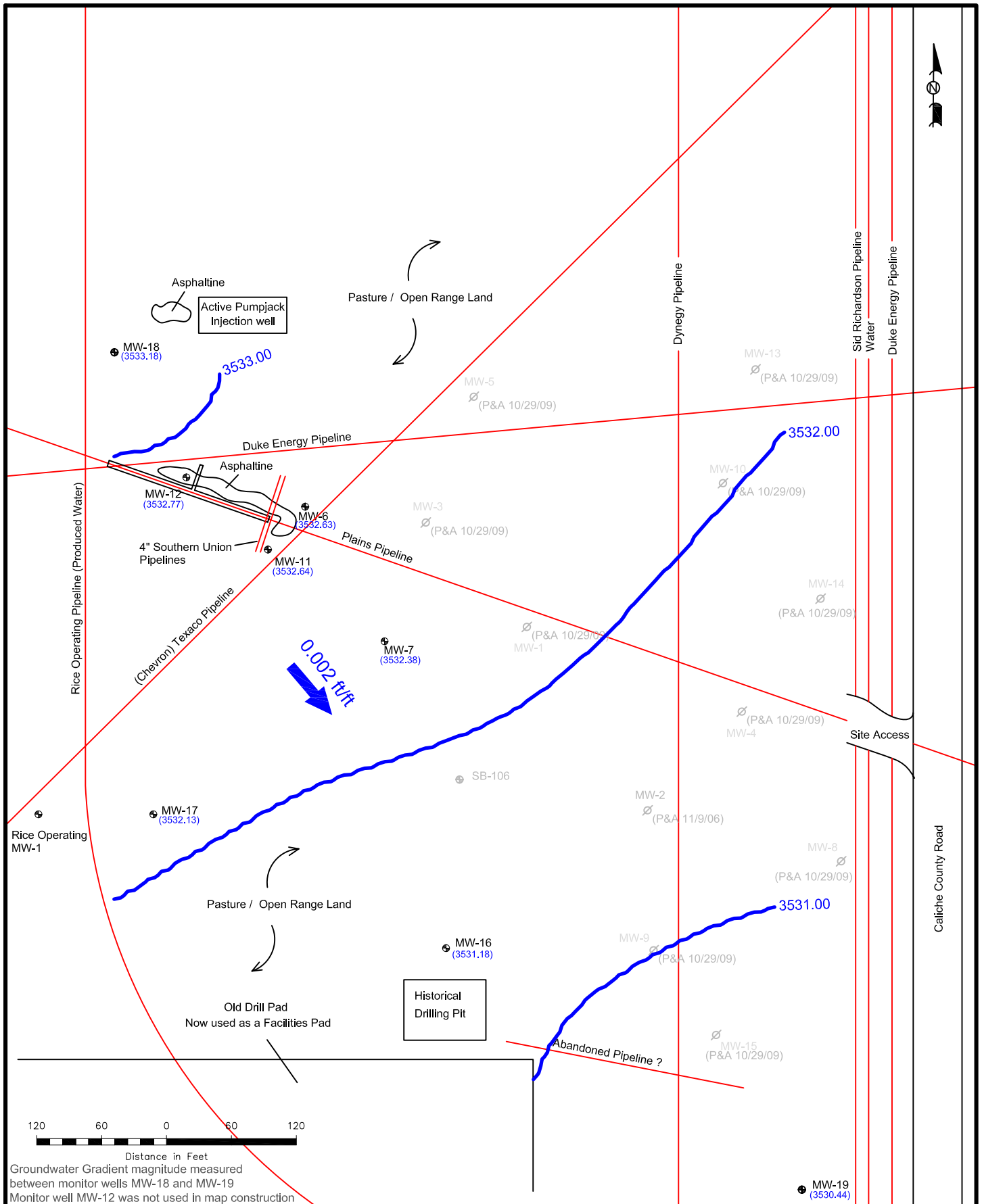
Basin Environmental Service Technologies, LLC

Drawn By: BJA

Checked By: BRB

March 29, 2011

Scale: 1" = 2000'



Legend:

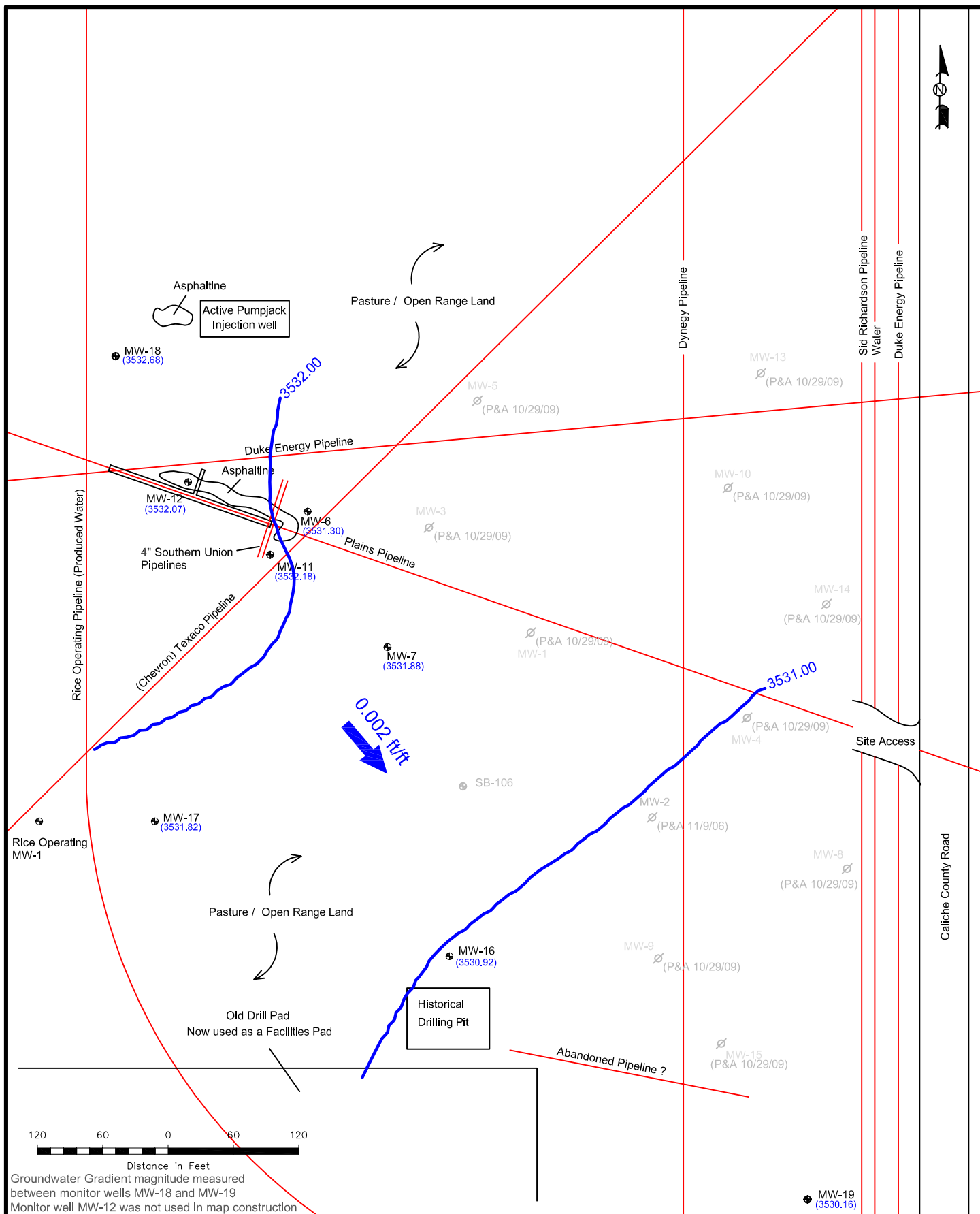
- Monitor Well Location (3473.00)
- Pipeline (0.001 ft/ft)
- Groundwater Contour Line
- Groundwater Elevation in Feet
- Groundwater Gradient and Magnitude

Figure 2A  
Inferred Groundwater  
Gradient Map (2/1/2013)

Plains Marketing, LP  
Red Byrd No. 1  
Lea County, NM

Basin Environmental Service Technologies, LLC

SE1/4 NE1/4 Sec 1 T20S R36E	32° 36' 09.2"N 103° 17' 56.9"		
Scale: 1" = 100'	Prep By: BJA	Checked By: BRB	
April 10, 2013			



#### Legend:

- Monitor Well Location
- Pipeline
- Groundwater Contour Line
- 3532.00 Groundwater Elevation In Feet
- 0.002 ft/ft Groundwater Gradient and Magnitude
- Inferred PSH Extent

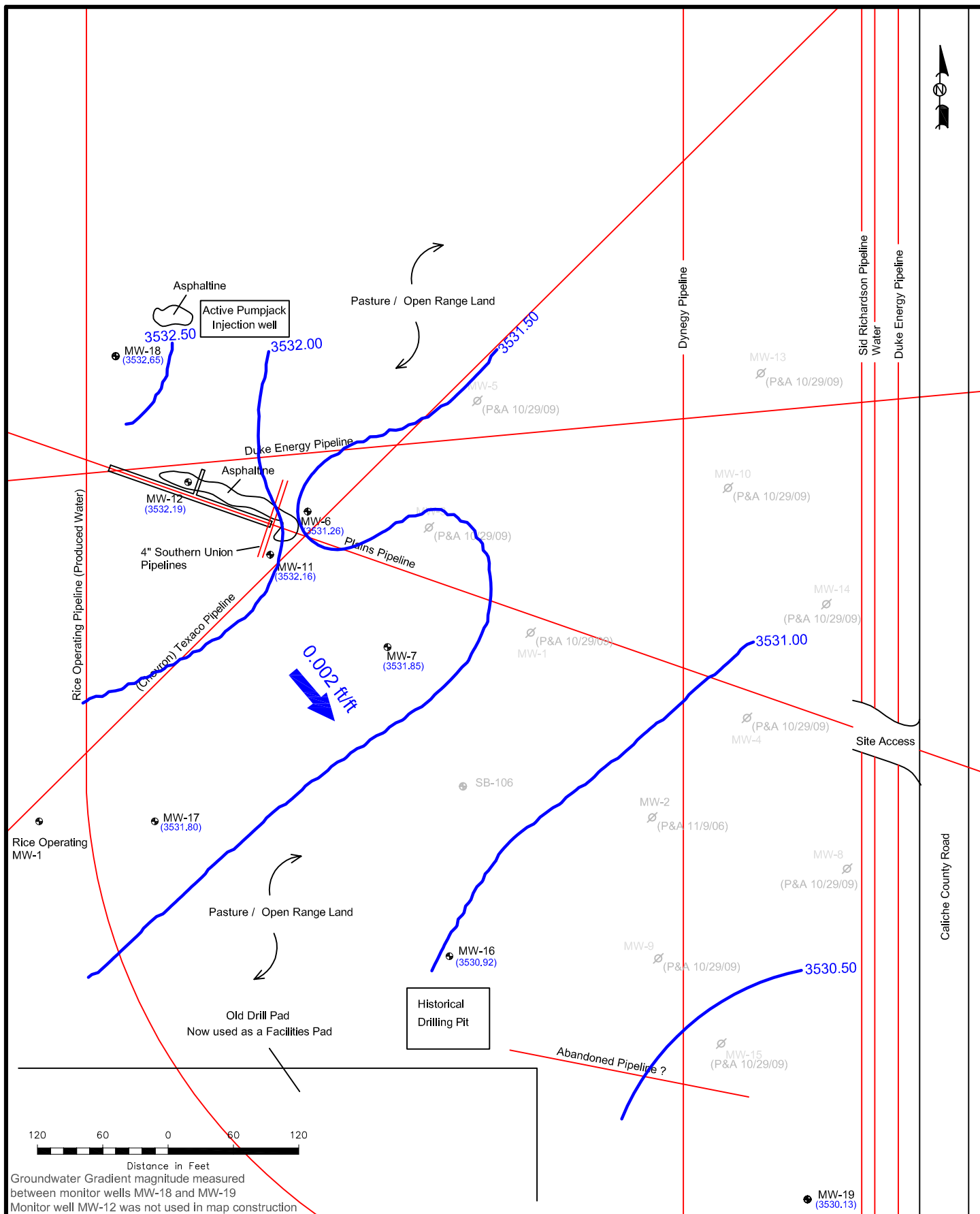
Figure 2B  
Inferred Groundwater  
Gradient Map (5/30/2013)

Plains Marketing, LP  
Red Byrd No. 1  
Lea County, NM

Basin Environmental Service Technologies, LLC

SE1/4 NE1/4 Sec 1 T20S R36E	32° 36' 09.2"N 103° 17' 56.9"W
Scale: 1" = 100'	Prep By: BJA
October 10, 2013	Checked By: BRB





#### Legend:

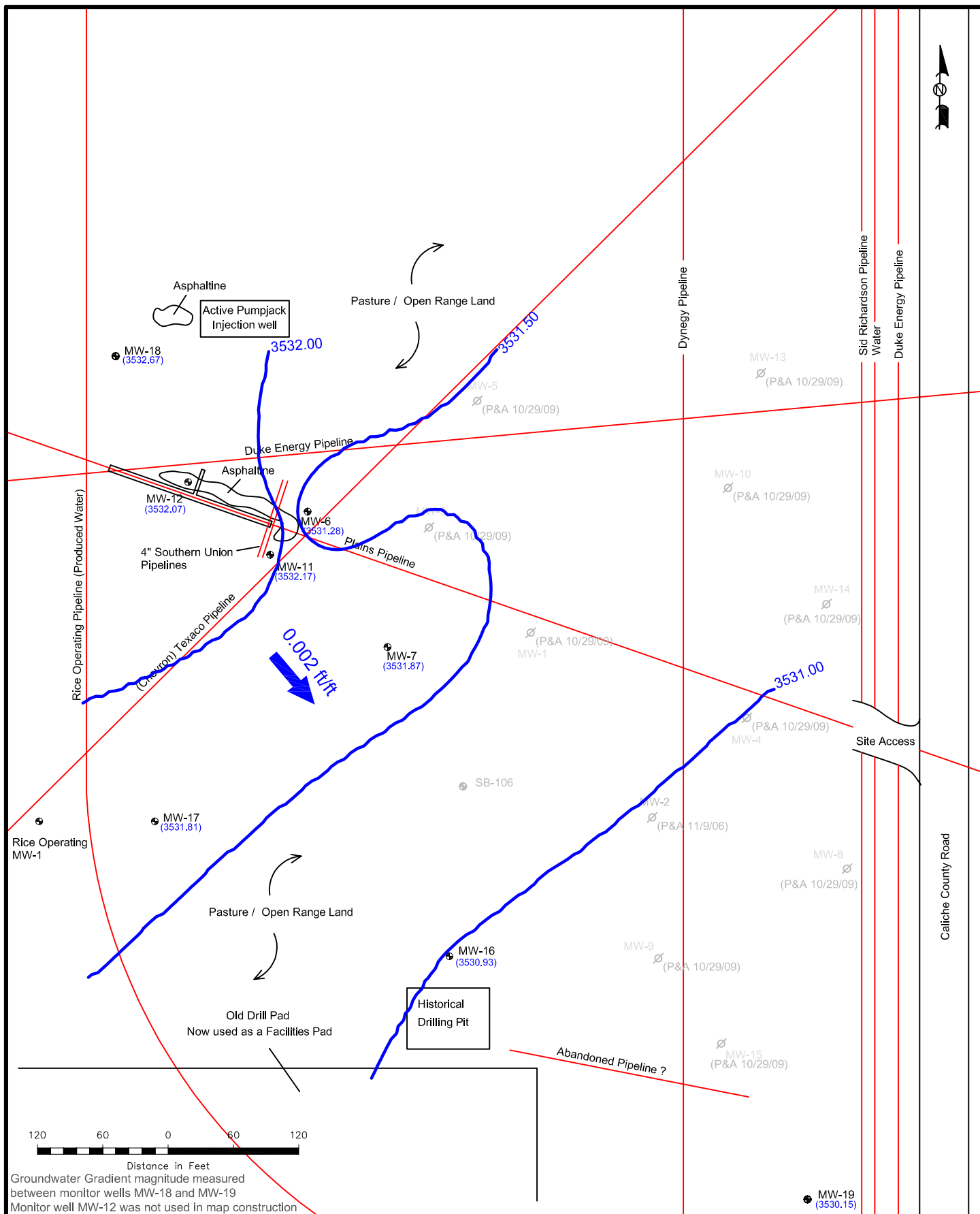
- Monitor Well Location
- Pipeline
- Groundwater Contour Line
- (3473.00) Groundwater Elevation In Feet
- 0.002 ft/ft Groundwater Gradient and Magnitude
- Inferred PSH Extent

Figure 2C  
Inferred Groundwater  
Gradient Map (9/26/2013)

Plains Marketing, LP  
Red Byrd No. 1  
Lea County, NM

Basin Environmental Service Technologies, LLC

SE1/4 NE1/4 Sec 1 T20S R36E	32° 36' 09.2"N 103° 17' 56.9"W
Scale: 1" = 100'	Prep By: BJA
October 10, 2013	Checked By: BRB



#### Legend:

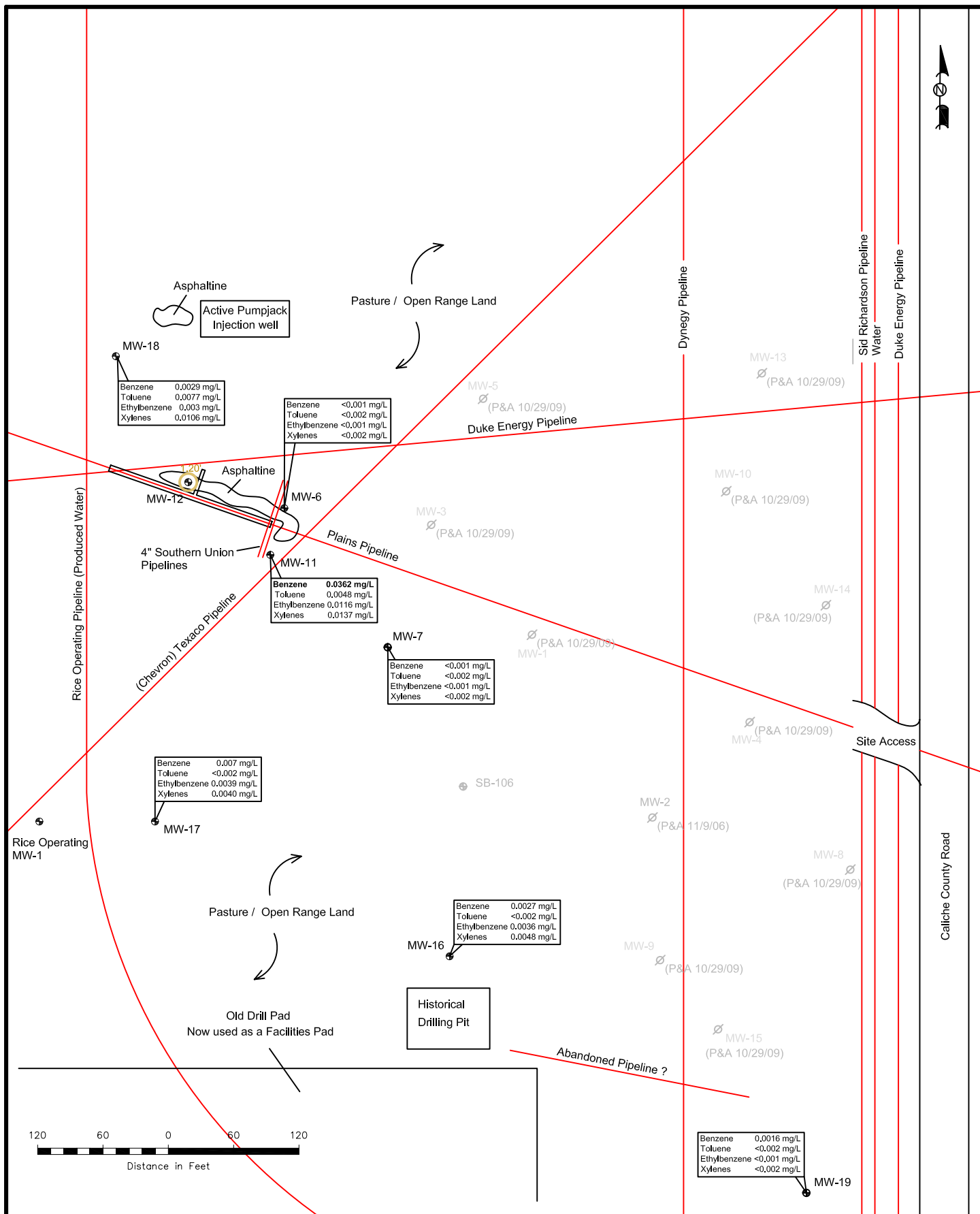
- Monitor Well Location
- Pipeline
- Groundwater Contour Line
- (3473.00) Groundwater Elevation In Feet
- 0.001 ft/ft Groundwater Gradient and Magnitude
- Inferred PSH Extent

Figure 2D  
Inferred Groundwater  
Gradient Map (11/19/13)

Plains Marketing, LP  
Red Byrd No. 1  
Lea County, NM

Basin Environmental Service Technologies, LLC

SE1/4 NE1/4 Sec 1 T20S R36E	32° 36' 09.2"N 103° 17' 56.9"W
Scale: 1" = 100'	Prep By: BJA
February 28, 2014	Checked By: BRB



**Legend:**

- Excavation
- Deep Excavation
- Monitor Well Location
- Pipeline
- Inferred PSH Extent
- 0.53' Thickness of PSH (In feet)

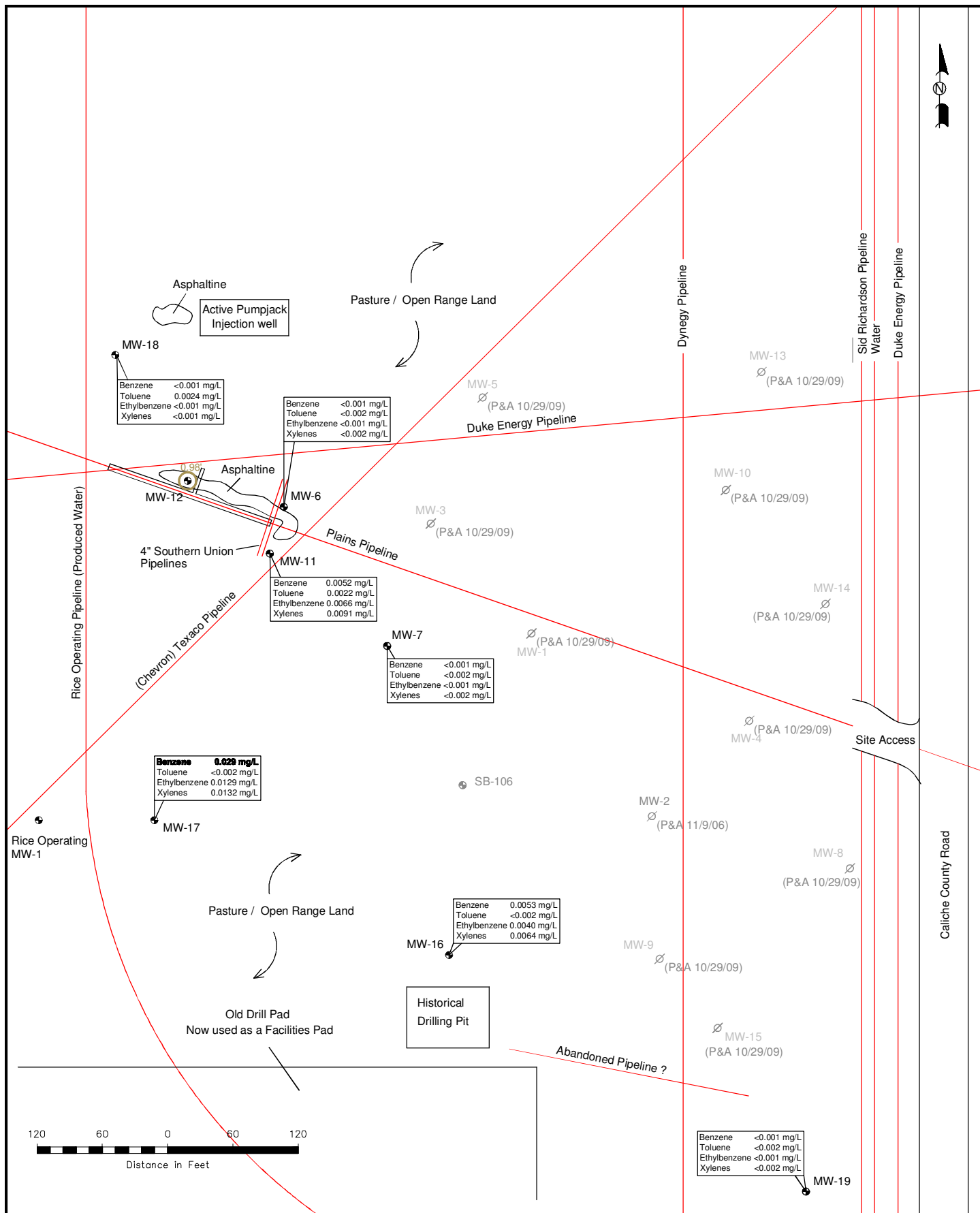
Figure 3A  
Groundwater Concentration &  
Inferred PSH Extent  
Map (5/30/2013)  
Plains Marketing, LP  
Red Byrd No. 1  
Lea County, NM

**Basin Environmental Service Technologies, LLC**

SE1/4 NE1/4 Sec 1 T20S R36E 32° 36' 09.2"N 103° 17' 56.9"

Scale: 1" = 100' Prep By: BJA Checked By: BRB

July 10, 2013



Asphaltine

Active Pumpjack Injection well

MW-18

Benzene <0.001 mg/L  
Toluene 0.0024 mg/L  
Ethylbenzene <0.001 mg/L  
Xylenes <0.001 mg/L

Benzene <0.001 mg/L  
Toluene <0.002 mg/L  
Ethylbenzene <0.001 mg/L  
Xylenes <0.002 mg/L

Rice Operating Pipeline (Produced Water)

MW-12

Asphaltine

MW-6

Benzene 0.0052 mg/L  
Toluene 0.0022 mg/L  
Ethylbenzene 0.0066 mg/L  
Xylenes 0.0091 mg/L

Plains Pipeline

(Chevron) Texaco Pipeline

4" Southern Union Pipelines

MW-7

Benzene <0.001 mg/L  
Toluene <0.002 mg/L  
Ethylbenzene <0.001 mg/L  
Xylenes <0.002 mg/L

MW-3  
Ø (P&A 10/29/09)

MW-5  
Ø (P&A 10/29/09)  
Duke Energy Pipeline

Dynegy Pipeline

MW-13  
Ø (P&A 10/29/09)

Sid Richardson Pipeline

Water

Duke Energy Pipeline

MW-10  
Ø (P&A 10/29/09)

MW-14  
Ø (P&A 10/29/09)

MW-1  
Ø (P&A 10/29/09)

MW-4  
Ø (P&A 10/29/09)

Site Access

MW-2  
Ø (P&A 11/9/06)

MW-8  
Ø (P&A 10/29/09)

MW-9  
Ø (P&A 10/29/09)

MW-15  
Ø (P&A 10/29/09)

Caliche County Road

Pasture / Open Range Land

MW-16

Benzene 0.0053 mg/L  
Toluene <0.002 mg/L  
Ethylbenzene 0.0040 mg/L  
Xylenes 0.0064 mg/L

Historical Drilling Pit

Old Drill Pad  
Now used as a Facilities Pad

Abandoned Pipeline ?

Benzene <0.001 mg/L  
Toluene <0.002 mg/L  
Ethylbenzene <0.001 mg/L  
Xylenes <0.002 mg/L

MW-19

120 60 0 60 120  
Distance in Feet

# Tables

**TABLE 1  
GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, LP  
RED BYRD #1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 1R-0085**

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	10/29/2009	Plugged and Abandoned				
MW-2	11/9/2006	Plugged and Abandoned				
MW-3	10/29/2009	Plugged and Abandoned				
MW-4	10/29/2009	Plugged and Abandoned				
MW-5	10/29/2009	Plugged and Abandoned				
MW-6	02/25/00	3,569.09	-	36.50	-	3,532.59
	05/15/00	3,569.09	-	36.58	-	3,532.51
	09/14/00	3,569.09	-	36.75	-	3,532.34
	12/05/00	3,569.09	-	36.76	-	3,532.33
	03/07/01	3,569.09	-	36.65	-	3,532.44
	05/23/01	3,569.09	-	36.62	-	3,532.47
	08/06/01	3,569.09	-	36.73	-	3,532.36
	10/02/01	3,569.09	-	36.82	-	3,532.27
	02/28/02	3,569.09	-	37.12	-	3,531.97
	05/14/02	3,569.09	-	37.33	-	3,531.76
	08/19/02	3,569.09	-	37.52	-	3,531.57
	10/23/02	3,569.09	-	37.67	-	3,531.42
	11/18/02	3,569.09	-	37.64	-	3,531.45
	09/08/04	3,569.09	-	38.30	-	3,530.79
	12/21/04	3,569.09	-	36.64	-	3,532.45
	03/18/05	3,569.09	-	35.37	-	3,533.72
	06/16/05	3,569.09	-	34.41	-	3,534.68
	09/16/05	3,569.09	-	33.90	-	3,535.19
	12/15/05	3,569.09	-	33.70	-	3,535.39
	03/17/06	3,569.09	-	33.62	-	3,535.47
	06/13/06	3,569.09	-	33.86	-	3,535.23
	08/09/06	3,569.09	-	34.10	-	3,534.99
	09/06/06	3,569.09	-	34.14	-	3,534.95
	09/17/06	3,569.09	-	34.17	-	3,534.92
	10/03/06	3,569.09	-	34.20	-	3,534.89
	10/24/06	3,569.09	-	34.09	-	3,535.00
	11/15/06	3,569.09	-	34.05	-	3,535.04
	02/14/07	3,569.09	-	33.86	-	3,535.23
	05/11/07	3,569.09	-	33.72	-	3,535.37
	08/14/07	3,569.09	-	-	-	-
	11/01/07	Excavated around & cut down MW-6				
	02/05/08	3,569.09	-	19.79	-	3,549.30
	05/05/08	3,569.09	-	20.06	-	3,549.03
	08/04/08	3,569.09	-	20.14	-	3,548.95
	11/03/08	3,569.09	-	19.95	-	3,549.14
	1/6/2009	3,569.09	-	20.25	-	3,548.84
	2/26/2009	3,569.09	-	20.25	-	3,548.84
	3/31/2009	3,570.91	-	30.26	-	3,540.65

**TABLE 1  
GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, LP  
RED BYRD #1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 1R-0085**

<b>WELL NUMBER</b>	<b>DATE MEASURED</b>	<b>TOP OF CASING ELEVATION</b>	<b>DEPTH TO PRODUCT</b>	<b>DEPTH TO WATER</b>	<b>PSH THICKNESS</b>	<b>CORRECTED GROUNDWATER ELEVATION</b>
MW-6	6/23/2009	3,570.91	-	30.41	-	3,540.50
	7/14/2009	3,570.91	-	30.50	-	3,540.41
	9/8/2009	3,570.91	-	37.50	-	3,533.41
	11/12/2009	3,570.91	-	37.53	-	3,533.38
	3/16/2010	3,570.91	-	37.82	-	3,533.09
	5/24/2010	3,570.91	-	37.90	-	3,533.01
	10/1/2010	3,570.91	-	37.22	-	3,533.69
	11/12/2010	3,570.91	-	37.05	-	3,533.86
	2/25/2011	3,570.91	-	36.69	-	3,534.22
	5/11/2011	3,570.91	-	36.61	-	3,534.30
	8/16/2011	3,570.91	-	36.93	-	3,533.98
	11/10/2011	3,570.91	-	37.25	-	3,533.66
	3/1/2012	3,570.91	-	37.55	-	3,533.36
	6/7/2012	3,570.91	-	37.90	-	3,533.01
	7/20/2012	3,570.91	-	37.91	-	3,533.00
	11/28/2012	3,570.91	-	38.13	-	3,532.78
	2/1/2013	3,570.91	-	38.28	-	3,532.63
	5/30/2013	3,570.91	-	39.61	-	3,531.30
	9/26/2013	3,570.91	-	39.65	-	3,531.26
	11/19/2013	3,570.91	-	39.63	-	3,531.28
MW-7	2/25/2000	3,567.53	-	35.29	-	3,532.24
	5/15/2000	3,567.53	-	35.37	-	3,532.16
	9/14/2000	3,567.53	-	35.55	-	3,531.98
	12/5/2000	3,567.53	-	35.55	-	3,531.98
	3/7/2001	3,567.53	-	35.45	-	3,532.08
	5/23/2001	3,567.53	-	35.43	-	3,532.10
	8/6/2001	3,567.53	-	35.59	-	3,531.94
	10/2/2001	3,567.53	-	35.62	-	3,531.91
	2/28/2002	3,567.53	-	35.95	-	3,531.58
	5/14/2002	3,567.53	-	36.02	-	3,531.51
	8/19/2002	3,567.53	-	36.21	-	3,531.32
	10/23/2002	3,567.53	-	36.44	-	3,531.09
	11/18/2002	3,567.53	-	36.42	-	3,531.11
	9/8/2004	3,567.53	-	37.05	-	3,530.48
	12/21/2004	3,567.53	-	35.40	-	3,532.13
	3/18/2005	3,567.53	-	34.23	-	3,533.30
	6/16/2005	3,567.53	-	33.26	-	3,534.27
	9/16/2005	3,567.53	-	32.73	-	3,534.80
	12/15/2005	3,567.53	-	32.57	-	3,534.96
	3/17/2006	3,567.53	-	32.51	-	3,535.02
	6/13/2006	3,567.53	-	33.69	-	3,533.84
	9/6/2006	3,567.53	-	32.97	-	3,534.56
	10/24/2006	3,567.53	-	32.91	-	3,534.62
	11/15/2006	3,567.53	-	32.87	-	3,534.66
	2/14/2007	3,567.53	-	32.61	-	3,534.92
	5/11/2007	3,567.53	-	32.56	-	3,534.97
	8/14/2007	3,567.53	-	32.66	-	3,534.87

**TABLE 1  
GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, LP  
RED BYRD #1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 1R-0085**

<b>WELL NUMBER</b>	<b>DATE MEASURED</b>	<b>TOP OF CASING ELEVATION</b>	<b>DEPTH TO PRODUCT</b>	<b>DEPTH TO WATER</b>	<b>PSH THICKNESS</b>	<b>CORRECTED GROUNDWATER ELEVATION</b>
MW-7	11/1/2007	3,567.53	-	32.87	-	3,534.66
	2/5/2008	3,567.53	-	33.09	-	3,534.44
	5/5/2008	3,567.53	-	33.31	-	3,534.22
	8/4/2008	3,567.53	-	33.44	-	3,534.09
	11/3/2008	3,567.53	-	33.28	-	3,534.25
	1/6/2009	3,567.53	-	33.53	-	3,534.00
	2/26/2009	3,567.53	-	33.68	-	3,533.85
	3/31/2009	3,567.53	-	33.80	-	3,533.73
	6/23/2009	3,567.53	-	33.98	-	3,533.55
	7/14/2009	3,567.53	-	34.04	-	3,533.49
	9/8/2009	3,567.53	-	34.22	-	3,533.31
	11/12/2009	3,567.53	-	34.38	-	3,533.15
	3/16/2010	3,567.53	-	34.68	-	3,532.85
	5/24/2010	3,567.53	-	34.75	-	3,532.78
	10/1/2010	3,567.53	-	34.10	-	3,533.43
	11/12/2010	3,567.53	-	33.95	-	3,533.58
	2/25/2011	3,567.53	-	33.59	-	3,533.94
	5/11/2011	3,567.53	-	33.51	-	3,534.02
	8/16/2011	3,567.53	-	33.86	-	3,533.68
	11/10/2011	3,567.53	-	34.20	-	3,533.33
	3/1/2012	3,567.53	-	34.45	-	3,533.08
	6/7/2012	3,567.53	-	34.65	-	3,532.88
	7/20/2012	3,567.53	-	34.78	-	3,532.75
	11/28/2012	3,567.53	-	37.76	-	3,529.77
	2/1/2013	3,567.53	-	35.15	-	3,532.38
	5/30/2013	3,567.53	-	35.65	-	3,531.88
	9/26/2013	3,567.53	-	35.68	-	3,531.85
	11/19/2013	3,567.53	-	35.67	-	3,531.87
MW-8	10/29/2009	Plugged and Abandoned				
MW-9	10/29/2009	Plugged and Abandoned				
MW-10	10/29/2009	Plugged and Abandoned				
MW-11	11/9/2004	3,567.96	-	36.45	-	3,531.51
	11/11/2004	3,567.96	-	36.44	-	3,531.52
	3/18/2005	3,567.96	-	34.27	-	3,533.69
	6/16/2005	3,567.96	-	33.30	-	3,534.66
	9/16/2005	3,567.96	-	32.80	-	3,535.16
	12/15/2005	3,567.96	-	32.60	-	3,535.36
	3/17/2006	3,567.96	-	32.57	-	3,535.39
	6/13/2006	3,567.96	-	33.77	-	3,534.19
	9/6/2006	3,567.96	-	33.05	-	3,534.91
	10/24/2006	3,567.96	-	33.00	-	3,534.96
	11/15/2006	3,567.96	-	32.39	-	3,535.57
	2/14/2007	3,567.96	-	32.71	-	3,535.25
	5/11/2007	3,567.96	-	32.64	-	3,535.32



**TABLE 1  
GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, LP  
RED BYRD #1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 1R-0085**

<b>WELL NUMBER</b>	<b>DATE MEASURED</b>	<b>TOP OF CASING ELEVATION</b>	<b>DEPTH TO PRODUCT</b>	<b>DEPTH TO WATER</b>	<b>PSH THICKNESS</b>	<b>CORRECTED GROUNDWATER ELEVATION</b>
MW-11	8/14/2007	3,567.96	-	32.79	-	3,535.17
	11/1/2007	3,567.96	-	32.98	-	3,534.98
	2/5/2008	3,567.96	-	33.28	-	3,534.68
	5/5/2008	3,567.96	-	33.49	-	3,534.47
	8/4/2008	3,567.96	-	33.57	-	3,534.39
	11/3/2008	3,567.96	-	33.38	-	3,534.58
	1/6/2009	3,567.96	-	33.77	-	3,534.19
	2/26/2009	3,567.96	-	33.83	-	3,534.13
	3/31/2009	3,567.96	-	33.94	-	3,534.02
	6/23/2009	3,567.96	-	34.13	-	3,533.83
	7/14/2009	3,567.96	-	34.20	-	3,533.76
	9/8/2009	3,567.96	-	34.38	-	3,533.58
	11/12/2009	3,567.96	-	34.54	-	3,533.42
	3/16/2010	3,567.96	-	34.83	-	3,533.13
	5/24/2010	3,567.96	-	34.91	-	3,533.05
	10/1/2010	3,567.96	-	-	-	-
	11/12/2010	3,567.96	-	34.10	-	3,533.86
	2/25/2011	3,567.96	-	33.70	-	3,534.26
	5/11/2011	3,567.96	-	33.64	-	3,534.32
	8/16/2011	3,567.96	-	35.47	-	3,532.49
	11/10/2011	3,567.96	-	37.30	-	3,530.66
	3/1/2012	3,567.96	-	34.58	-	3,533.38
	6/7/2012	3,567.96	-	34.90	-	3,533.06
	7/20/2012	3,567.96	-	34.95	-	3,533.01
	11/28/2012	3,567.96	-	35.12	-	3,532.84
	2/1/2013	3,567.96	-	35.32	-	3,532.64
	5/30/2013	3,567.96	-	35.78	-	3,532.18
	9/26/2013	3,567.96	-	35.80	-	3,532.16
	11/19/2013	3,567.96	-	35.79	-	3,532.17
MW-12	11/9/2004	3,570.36	-	38.57	-	3,531.79
	11/11/2004	3,570.36	-	38.55	-	3,531.81
	3/18/2005	3,570.36	Sheen	36.31	-	3,534.05
	6/16/2005	3,570.36	Sheen	35.34	-	3,535.02
	8/11/2005	3,570.36	Sheen	34.93	-	3,535.43
	9/13/2005	3,570.36	Sheen	34.83	-	3,535.53
	9/16/2005	3,570.36	-	34.85	-	3,535.51
	12/2/2005	3,570.36	-	34.63	-	3,535.73
	12/15/2005	3,570.36	-	34.62	-	3,535.74
	3/17/2006	3,570.36	-	34.65	-	3,535.71
	6/13/2006	3,570.36	-	34.85	-	3,535.51
	7/12/2006	3,570.36	-	34.94	-	3,535.42
	8/9/2006	3,570.36	-	35.11	-	3,535.25
	9/6/2006	3,570.36	-	35.14	-	3,535.22
	9/17/2006	3,570.36	-	35.06	-	3,535.30
	10/3/2006	3,570.36	-	35.09	-	3,535.27
	10/24/2006	3,570.36	-	35.06	-	3,535.30
	11/15/2006	3,570.36	Sheen	35.07	-	3,535.29

**TABLE 1  
GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, LP  
RED BYRD #1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 1R-0085**

<b>WELL NUMBER</b>	<b>DATE MEASURED</b>	<b>TOP OF CASING ELEVATION</b>	<b>DEPTH TO PRODUCT</b>	<b>DEPTH TO WATER</b>	<b>PSH THICKNESS</b>	<b>CORRECTED GROUNDWATER ELEVATION</b>
MW-12	11/16/2006	3,570.36	-	35.00	-	3,535.36
	2/14/2007	3,570.36	34.74	35.81	1.07	3,535.46
	2/19/2007	3,570.36	34.69	35.66	0.97	3,535.52
	3/2/2007	3,570.36	34.71	35.80	1.09	3,535.49
	3/8/2007	3,570.36	34.78	35.27	0.49	3,535.51
	3/22/2007	3,570.36	34.74	35.58	0.84	3,535.49
	3/27/2007	3,570.36	34.56	35.56	1.00	3,535.65
	4/3/2007	3,570.36	34.74	35.66	0.92	3,535.48
	4/11/2007	3,570.36	34.72	35.70	0.98	3,535.49
	4/27/2007	3,570.36	34.73	35.66	0.93	3,535.49
	5/11/2007	3,570.36	34.69	35.65	0.96	3,535.53
	6/13/2007	Excavated around & cut down MW-12				
	6/19/2007	3,570.95	-	-	-	3,570.95
	7/2/2007	3,570.95	-	-	-	3,570.95
	7/11/2007	3,570.95	-	-	-	3,570.95
	7/19/2007	3,570.95	-	-	-	3,570.95
	7/24/2007	3,570.95	-	-	-	3,570.95
	8/1/2007	3,570.95	-	-	-	3,570.95
	8/8/2007	3,570.95	-	-	-	3,570.95
	8/14/2007	3,570.95	-	-	-	3,570.95
	8/16/2007	3,570.95	-	-	-	3,570.95
	8/24/2007	3,570.95	-	-	-	3,570.95
	8/29/2007	3,570.95	-	-	-	3,570.95
	9/5/2007	3,570.95	-	-	-	3,570.95
	9/14/2007	3,570.95	-	-	-	3,570.95
	9/26/2007	3,570.95	-	-	-	3,570.95
	10/3/2007	3,570.95	-	-	-	3,570.95
	10/10/2007	3,570.95	-	-	-	3,570.95
	10/17/2007	3,570.95	-	-	-	3,570.95
	11/1/2007	3,570.95	-	-	-	3,570.95
	11/30/2007	3,570.95	-	-	-	3,570.95
	1/11/2008	3,570.95	-	-	-	3,570.95
	1/17/2008	3,570.95	-	-	-	3,570.95
	1/22/2008	3,570.95	-	-	-	3,570.95
	2/12/2008	3,570.95	-	-	-	3,570.95
	2/21/2008	3,570.95	-	-	-	3,570.95
	4/24/2008	3,570.95	-	-	-	3,570.95
	5/8/2008	3,570.95	-	-	-	3,570.95
	6/25/2008	3,570.95	19.77	21.36	1.59	3,550.94
	7/14/2008	3,570.95	19.65	21.16	1.51	3,551.07
	8/18/2008	3,570.95	19.62	20.96	1.34	3,551.13
	11/3/2008	3,570.95	19.51	21.34	1.83	3,551.17
	11/7/2008	3,570.95	19.41	20.37	0.96	3,551.40
	11/14/2008	3,570.95	19.58	20.51	0.93	3,551.23
	11/21/2008	3,570.95	19.48	20.48	1.00	3,551.32
	1/6/2009	3,570.95	19.61	21.70	2.09	3,551.03
	1/13/2009	3,570.95	19.66	21.54	1.88	3,551.01
	1/22/2009	3,570.95	19.70	21.49	1.79	3,550.98

**TABLE 1  
GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, LP  
RED BYRD #1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 1R-0085**

<b>WELL NUMBER</b>	<b>DATE MEASURED</b>	<b>TOP OF CASING ELEVATION</b>	<b>DEPTH TO PRODUCT</b>	<b>DEPTH TO WATER</b>	<b>PSH THICKNESS</b>	<b>CORRECTED GROUNDWATER ELEVATION</b>
MW-12	1/29/2009	3,570.95	16.73	18.60	1.87	3,553.94
	2/3/2009	3,570.95	16.76	18.39	1.63	3,553.95
	2/12/2009	3,570.95	16.76	18.49	1.73	3,553.93
	2/20/2009	3,570.95	16.29	18.46	2.17	3,554.33
	2/27/2009	3,570.95	20.59	22.13	1.54	3,550.13
	3/12/2009	3,570.95	20.64	22.53	1.89	3,550.03
	3/19/2009	3,570.95	30.69	32.44	1.75	3,540.00
	3/24/2009	3,570.95	30.70	32.58	1.88	3,539.97
	3/31/2009	3,570.95	30.72	32.62	1.90	3,539.95
	4/7/2009	3,570.95	30.73	32.37	1.64	3,539.97
	4/15/2009	3,570.95	30.75	32.39	1.64	3,539.95
	4/21/2009	3,570.95	30.78	32.31	1.53	3,539.94
	4/28/2009	3,570.95	30.81	32.37	1.56	3,539.91
	5/5/2009	3,570.95	30.81	32.38	1.57	3,539.90
	5/15/2009	3,570.95	30.81	32.51	1.70	3,539.89
	5/19/2009	3,570.95	30.86	32.39	1.53	3,539.86
	5/28/2009	3,570.95	30.87	32.55	1.68	3,539.83
	6/1/2009	3,570.95	31.90	32.46	0.56	3,538.97
	6/22/2009	3,570.95	30.90	32.72	1.82	3,539.78
	6/23/2009	3,570.95	30.90	32.72	1.82	3,539.78
	6/29/2009	3,570.95	30.92	32.65	1.73	3,539.77
	7/8/2009	3,570.95	31.05	32.17	1.12	3,539.73
	7/14/2009	3,570.95	31.00	32.63	1.63	3,539.71
	7/27/2009	3,570.95	36.94	38.45	1.51	3,533.78
	8/3/2009	3,570.95	36.93	38.63	1.70	3,533.77
	8/11/2009	3,570.95	36.97	38.66	1.69	3,533.73
	8/18/2009	3,570.95	37.00	38.62	1.62	3,533.71
	8/28/2009	3,570.95	37.02	38.70	1.68	3,533.68
	9/3/2009	3,570.95	37.04	38.72	1.68	3,533.66
	9/8/2009	3,570.95	37.03	38.64	1.61	3,533.68
	9/17/2009	3,570.95	37.08	38.74	1.66	3,533.62
	9/22/2009	3,570.95	37.12	38.68	1.56	3,533.60
	10/1/2009	3,570.95	37.11	38.74	1.63	3,533.60
	10/6/2009	3,570.95	37.15	38.72	1.57	3,533.56
	10/13/2009	3,570.95	37.16	38.75	1.59	3,533.55
	10/20/2009	3,570.95	37.16	38.68	1.52	3,533.56
	10/29/2009	3,570.95	37.19	38.74	1.55	3,533.53
	11/3/2009	3,570.95	37.25	38.62	1.37	3,533.49
	11/10/2009	3,570.95	37.29	38.73	1.44	3,533.44
	11/12/2009	3,570.95	37.25	38.21	0.96	3,533.56
	11/17/2009	3,570.95	37.31	38.62	1.31	3,533.44
	11/24/2009	3,570.95	37.34	38.64	1.30	3,533.42
	12/8/2009	3,570.95	37.28	38.88	1.60	3,533.43
	12/17/2009	3,570.95	37.32	38.91	1.59	3,533.39
	12/23/2009	3,570.95	37.41	38.52	1.11	3,533.37
	12/29/2009	3,570.95	37.39	38.96	1.57	3,533.32
	3/16/2010	3,570.95	37.52	39.22	1.70	3,531.73
	5/24/2010	3,570.95	37.59	39.24	1.65	3,531.71

**TABLE 1  
GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, LP  
RED BYRD #1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 1R-0085**

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-12	10/1/2010	3,570.95	36.93	38.15	1.22	3,532.80
	11/12/2010	3,570.95	36.72	37.89	1.17	3,533.06
	2/25/2011	3,570.95	36.48	37.17	0.69	3,533.78
	5/11/2011	3,570.95	36.41	36.98	0.57	3,533.97
	8/16/2011	3,570.95	36.65	36.70	0.05	3,534.25
	11/10/2011	3,570.95	36.86	38.45	1.59	3,532.50
	3/1/2012	3,570.95	37.15	39.15	2.00	3,531.80
	6/7/2012	3,570.95	36.90	38.75	1.85	3,532.20
	7/20/2012	3,570.95	36.95	39.18	2.23	3,531.77
	11/28/2012	3,570.95	37.78	39.69	1.91	3,531.26
	2/1/2013	3,570.95	37.88	39.91	2.03	3,532.77
	5/30/2013	3,570.95	38.30	39.50	1.20	3,532.47
	9/26/2013	3,570.95	38.61	39.59	0.98	3,532.19
	11/19/2013	3,570.95	38.71	39.87	1.16	3,532.07
MW-13	10/29/2009	Plugged and Abandoned				
MW-14	10/29/2009	Plugged and Abandoned				
MW-15	10/29/2009	Plugged and Abandoned				
MW-16	3/14/2006	3,568.89	-	53.29	-	3,515.60
	3/17/2006	3,568.89	-	35.29	-	3,533.60
	6/13/2006	3,568.89	-	35.40	-	3,533.49
	7/12/2006	3,568.89	-	35.51	-	3,533.38
	8/9/2006	3,568.89	-	35.62	-	3,533.27
	9/6/2006	3,568.89	-	35.64	-	3,533.25
	9/17/2006	3,568.89	-	35.65	-	3,533.24
	10/3/2006	3,568.89	-	35.66	-	3,533.23
	10/24/2006	3,568.89	-	35.50	-	3,533.39
	11/15/2006	3,568.89	-	35.59	-	3,533.30
	11/16/2006	3,568.89	-	35.42	-	3,533.47
	2/14/2007	3,568.89	-	35.29	-	3,533.60
	3/22/2007	3,568.89	-	35.24	-	3,533.65
	5/11/2007	3,568.89	-	35.31	-	3,533.58
	8/14/2007	3,568.89	-	35.34	-	3,533.55
	11/1/2007	3,568.89	-	35.49	-	3,533.40
	2/5/2008	3,568.89	-	35.61	-	3,533.28
	5/5/2008	3,568.89	-	35.91	-	3,532.98
	8/4/2008	3,568.89	-	36.02	-	3,532.87
	11/3/2008	3,568.89	-	36.01	-	3,532.88
	1/6/2009	3,568.89	-	36.15	-	3,532.74
	2/26/2009	3,568.89	-	36.25	-	3,532.64
	3/31/2009	3,568.89	-	36.35	-	3,532.54
	6/23/2009	3,568.89	-	36.53	-	3,532.36
	7/14/2009	3,568.89	-	36.60	-	3,532.29
	9/8/2009	3,568.89	-	36.76	-	3,532.13
	11/12/2009	3,568.89	-	36.94	-	3,531.95

**TABLE 1  
GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, LP  
RED BYRD #1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 1R-0085**

<b>WELL NUMBER</b>	<b>DATE MEASURED</b>	<b>TOP OF CASING ELEVATION</b>	<b>DEPTH TO PRODUCT</b>	<b>DEPTH TO WATER</b>	<b>PSH THICKNESS</b>	<b>CORRECTED GROUNDWATER ELEVATION</b>
MW-16	3/16/2010	3,568.89	-	37.18	-	3,531.71
	5/24/2010	3,568.89	-	37.25	-	3,531.64
	10/1/2010	3,568.89	-	36.76	-	3,532.13
	11/12/2010	3,568.89	-	37.64	-	3,531.25
	2/25/2011	3,568.89	-	36.30	-	3,532.59
	5/11/2011	3,568.89	-	36.28	-	3,532.61
	8/16/2011	3,568.89	-	36.29	-	3,532.60
	11/10/2011	3,568.89	-	36.30	-	3,532.60
	3/1/2012	3,568.89	-	37.03	-	3,531.86
	6/7/2012	3,568.89	-	37.00	-	3,531.89
	7/20/2012	3,568.89	-	37.38	-	3,531.51
	11/28/2012	3,568.89	-	38.33	-	3,530.56
	2/1/2013	3,568.89	-	37.71	-	3,531.18
	5/30/2013	3,568.89	-	37.97	-	3,530.92
	9/26/2013	3,568.89	-	37.97	-	3,530.92
	11/19/2013	3,568.89	-	37.96	-	3,530.93
MW-17	3/13/2006	3,569.66	-	34.86	-	3,534.80
	3/17/2006	3,569.66	-	34.87	-	3,534.79
	6/13/2006	3,569.66	-	35.04	-	3,534.62
	7/12/2006	3,569.66	-	35.12	-	3,534.54
	9/6/2006	3,569.66	-	35.30	-	3,534.36
	9/17/2006	3,569.66	-	35.28	-	3,534.38
	10/3/2006	3,569.66	-	35.31	-	3,534.35
	10/24/2006	3,569.66	-	35.23	-	3,534.43
	11/15/2006	3,569.66	-	35.21	-	3,534.45
	11/16/2006	3,569.66	-	35.12	-	3,534.54
	2/14/2007	3,569.66	-	34.95	-	3,534.71
	3/22/2007	3,569.66	-	34.97	-	3,534.69
	5/11/2007	3,569.66	-	34.94	-	3,534.72
	8/14/2007	3,569.66	-	35.06	-	3,534.60
	11/1/2007	3,569.66	-	35.21	-	3,534.45
	2/5/2008	3,569.66	-	35.43	-	3,534.23
	5/5/2008	3,569.66	-	35.74	-	3,533.92
	8/4/2008	3,569.66	-	35.83	-	3,533.83
	11/3/2008	3,569.66	-	35.68	-	3,533.98
	1/6/2009	3,569.66	-	35.90	-	3,533.76
	2/26/2009	3,569.66	-	36.04	-	3,533.62
	3/31/2009	3,569.66	-	36.15	-	3,533.51
	6/23/2009	3,569.66	-	36.35	-	3,533.31
	7/14/2009	3,569.66	-	36.42	-	3,533.24
	9/8/2009	3,569.66	-	36.59	-	3,533.07
	11/12/2009	3,569.66	-	36.74	-	3,532.92
	3/16/2010	3,569.66	-	37.01	-	3,532.65
	5/24/2010	3,569.66	-	37.09	-	3,532.57
	10/1/2010	3,569.66	-	36.53	-	3,533.13
	11/12/2010	3,569.66	-	36.28	-	3,533.38
	2/25/2011	3,569.66	-	36.03	-	3,533.63

**TABLE 1  
GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, LP  
RED BYRD #1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 1R-0085**

<b>WELL NUMBER</b>	<b>DATE MEASURED</b>	<b>TOP OF CASING ELEVATION</b>	<b>DEPTH TO PRODUCT</b>	<b>DEPTH TO WATER</b>	<b>PSH THICKNESS</b>	<b>CORRECTED GROUNDWATER ELEVATION</b>
MW-17	5/11/2011	3,569.66	-	36.05	-	3,533.61
	8/16/2011	3,569.66	-	36.33	-	3,533.34
	11/10/2011	3,569.66	-	36.60	-	3,533.06
	3/1/2012	3,569.66	-	36.84	-	3,532.82
	6/7/2012	3,569.66	-	37.40	-	3,532.26
	7/20/2012	3,569.66	-	37.23	-	3,532.43
	11/28/2012	3,569.66	-	37.46	-	3,532.20
	2/1/2013	3,569.66	-	37.53	-	3,532.13
	5/30/2013	3,569.66	-	37.84	-	3,531.82
	9/26/2013	3,569.66	-	37.86	-	3,531.80
	11/19/2013	3,569.66	-	37.85	-	3,531.81
MW-18	3/13/2006	3,571.17	-	34.81	-	3,536.36
	3/17/2006	3,571.17	-	34.82	-	3,536.35
	6/13/2006	3,571.17	-	35.05	-	3,536.12
	7/12/2006	3,571.17	-	35.14	-	3,536.03
	9/6/2006	3,571.17	-	35.36	-	3,535.81
	9/17/2006	3,571.17	-	33.73	-	3,537.44
	10/3/2006	3,571.17	-	35.77	-	3,535.40
	10/24/2006	3,571.17	-	35.70	-	3,535.47
	11/15/2006	3,571.17	-	35.25	-	3,535.92
	11/16/2006	3,571.17	-	35.20	-	3,535.97
	2/14/2007	3,571.17	-	35.02	-	3,536.15
	5/11/2007	3,571.17	-	35.00	-	3,536.17
	8/14/2007	3,571.17	-	35.18	-	3,535.99
	11/1/2007	3,571.17	-	35.37	-	3,535.80
	2/5/2008	3,571.17	-	35.51	-	3,535.66
	5/5/2008	3,571.17	-	36.91	-	3,534.26
	8/4/2008	3,571.17	-	35.90	-	3,535.27
	11/3/2008	3,571.17	-	35.67	-	3,535.50
	1/6/2009	3,571.17	-	36.06	-	3,535.11
	2/26/2009	3,571.17	-	36.26	-	3,534.91
	3/31/2009	3,571.17	-	36.39	-	3,534.78
	6/23/2009	3,571.17	-	36.64	-	3,534.53
	7/14/2009	3,571.17	-	36.71	-	3,534.46
	9/8/2009	3,571.17	-	36.88	-	3,534.29
	11/12/2009	3,571.17	-	37.01	-	3,534.16
	3/16/2010	3,571.17	-	37.18	-	3,533.99
	5/24/2010	3,571.17	-	37.41	-	3,533.76
	10/1/2010	3,571.17	-	36.72	-	3,534.45
	11/12/2010	3,571.17	-	36.49	-	3,534.68
	2/25/2011	3,571.17	-	36.13	-	3,535.04
	5/11/2011	3,571.17	-	36.12	-	3,535.05
	8/16/2011	3,571.17	-	36.51	-	3,534.66
	11/10/2011	3,571.17	-	36.90	-	3,534.27
	3/1/2012	3,571.17	-	37.30	-	3,533.87
	6/7/2012	3,571.17	-	37.60	-	3,533.57
	7/20/2012	3,571.17	-	37.62	-	3,533.55

**TABLE 1  
GROUNDWATER ELEVATION DATA**

**PLAINS MARKETING, LP  
RED BYRD #1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 1R-0085**

<b>WELL NUMBER</b>	<b>DATE MEASURED</b>	<b>TOP OF CASING ELEVATION</b>	<b>DEPTH TO PRODUCT</b>	<b>DEPTH TO WATER</b>	<b>PSH THICKNESS</b>	<b>CORRECTED GROUNDWATER ELEVATION</b>
MW-18	11/28/2012	3,571.17	-	37.95	-	3,533.22
	2/1/2013	3,571.17	-	37.99	-	3,533.18
	5/30/2013	3,571.17	-	38.49	-	3,532.68
	9/26/2013	3,571.17	-	38.52	-	3,532.65
	11/19/2013	3,571.17	-	38.51	-	3,532.67
MW-19	8/4/2008	3,569.78	-	37.82	-	3,531.96
	8/26/2008	3,569.78	-	37.84	-	3,531.94
	11/3/2008	3,569.78	-	37.79	-	3,531.99
	1/6/2009	3,569.78	-	37.87	-	3,531.91
	2/26/2009	3,569.78	-	37.95	-	3,531.83
	3/31/2009	3,569.78	-	38.03	-	3,531.75
	6/23/2009	3,569.78	-	38.19	-	3,531.59
	7/14/2009	3,569.78	-	38.24	-	3,531.54
	9/8/2009	3,569.78	-	38.41	-	3,531.37
	11/12/2009	3,569.78	-	38.59	-	3,531.19
	3/16/2010	3,569.78	-	38.81	-	3,530.97
	5/24/2010	3,569.78	-	38.88	-	3,530.90
	10/1/2010	3,569.78	-	38.45	-	3,531.33
	11/12/2010	3,569.78	-	38.40	-	3,531.38
	2/25/2011	3,569.78	-	38.01	-	3,531.77
	5/11/2011	3,569.78	-	37.90	-	3,531.88
	8/16/2011	3,569.78	-	38.25	-	3,531.53
	11/10/2011	3,569.78	-	38.60	-	3,531.18
	3/1/2012	3,569.78	-	38.96	-	3,530.82
	6/7/2012	3,569.78	-	38.12	-	3,531.66
	7/20/2012	3,569.78	-	38.99	-	3,530.79
	11/28/2012	3,569.78	-	37.12	-	3,532.66
	2/1/2013	3,569.78	-	39.34	-	3,530.44
	5/30/2013	3,569.78	-	39.62	-	3,530.16
	9/26/2013	3,569.78	-	39.65	-	3,530.13
	11/19/2013	3,569.78	-	39.64	-	3,530.15

*Elevations based on the North American Vertical Datum of 1929.*

**TABLE 2**  
**GROUNDWATER ELEVATION DATA - CURTAILMENT PERIOD**

**PLAINS MARKETING, L.P.**  
**RED BYRD #1**  
**LEA COUNTY, NEW MEXICO**  
**PLAINS SRS NO: TNM RED BYRD #1**  
**NMOCD REFERENCE NO: 1R-0085**

<b>WELL NUMBER</b>	<b>DATE MEASURED</b>	<b>TOP OF CASING ELEVATION</b>	<b>DEPTH TO PRODUCT</b>	<b>DEPTH TO WATER</b>	<b>PSH THICKNESS</b>	<b>CORRECTED GROUND WATER ELEVATION</b>
MW-12	8/31/2012	3,570.95	37.35	39.15	1.80	3,533.33
	9/19/2012	3,570.95	37.75	39.15	1.40	3,532.99
	10/15/2012	3,570.95	37.70	39.72	2.02	3,532.95
	11/28/2012	3,570.95	37.78	39.69	1.91	3,532.88
	12/31/2012	3,570.95	37.69	39.72	2.03	3,532.96
	1/23/2013	3,570.95	37.88	39.90	2.02	3,532.77
	2/20/2013	3,570.95	37.88	39.91	2.03	3,532.77
	3/28/2013	3,570.95	38.03	40.05	2.02	3,532.62

*Elevations based on the North American Vertical Datum of 1929.*



**TABLE 3**  
**CONCENTRATIONS OF BENZENE & BTEX IN GROUNDWATER**

**PLAINS MARKETING, L.P.**  
**RED BYRD #1**  
**LEA COUNTY, NEW MEXICO**  
**PLAINS SRS NO: TNM RED BYRD #1**  
**NMOCD REF NO: 1R-0085**

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-1	02/02/00	0.0880	0.00300	<0.001	0.002	<0.001	0.002	0.093
	05/15/00	0.1200	0.00300	0.0020	0.002	<0.001	0.002	0.127
	09/14/00	0.3610	0.00200	0.0020	<0.001	<0.001	<0.001	0.365
	12/05/00	0.4830	0.00100	0.0010	0.001	<0.001	0.001	0.486
	03/18/05	Not Sampled Due to Presence of PSH						
	06/16/05	0.0875	<0.05	0.0634	-	-	<0.05	0.151
	09/16/05	1.1500	<0.2	1.6100	-	-	1.150	3.910
	12/15/05	0.5960	<0.2	<0.2	-	-	<0.2	0.596
	03/17/06	0.6580	<0.2	0.4060	-	-	0.373	1.437
	06/13/06	0.2900	0.00170	0.1870	-	-	0.158	0.637
	09/06/06	0.2970	<0.2	<0.2	-	-	<0.2	0.297
	11/15/06	0.3680	<0.001	0.2330	-	-	0.194	0.795
	02/14/07	0.1110	<0.001	0.0954	-	-	0.083	0.290
	05/11/07	0.4320	<0.200	0.5200	-	-	0.459	1.411
	08/14/07	0.1460	<0.02	0.0519	-	-	0.057	0.255
	11/01/07	0.3090	<0.02	0.1010	-	-	0.0647	0.475
	02/05/08	0.1540	<0.001	0.5830	-	-	0.4610	1.198
	05/05/08	0.8160	<0.005	0.2620	-	-	0.3430	1.421
	08/04/08	0.2840	<0.005	0.1110	-	-	0.0972	0.492
	11/03/08	0.3220	0.02930	0.1040	-	-	0.2130	0.668
	02/27/09	0.363	0.004	0.0555	0.0516	0.0015	0.053	0.4756
	06/24/09	0.285	<0.0500	0.0425	<0.0500	<0.0250	<0.0500	0.3275
	09/09/09	0.7952	<0.0400	0.145	0.1024	<0.0200	0.102	1.0426
	10/29/09	Plugged and Abandoned						
MW-2	02/02/00	0.0080	<0.001	<0.001	<0.001	<0.001	<0.001	0.008
	05/15/00	0.0590	<0.001	<0.001	<0.001	<0.001	<0.001	0.059
	09/14/00	0.1040	<0.001	<0.001	<0.001	<0.001	<0.001	0.104
	12/05/00	0.1800	<0.001	0.0030	0.001	<0.001	0.001	0.184
	03/18/05	1.5700	<0.5	<0.5	-	-	<0.5	1.570
	06/16/05	1.0300	<0.2	0.5350	-	-	0.315	1.880
	09/16/05	0.9980	<0.2	0.6810	-	-	0.424	2.103
	12/15/05	0.8490	<0.2	0.6050	-	-	0.402	1.856
	03/17/06	0.6700	<0.2	0.5800	-	-	0.588	1.838
	06/13/06	0.3390	<0.2	0.3340	-	-	<0.2	0.673
	09/06/06	Not Sampled Due to Well Obstruction						
	11/09/06	Plugged and Abandoned						
MW-3	02/02/00	0.1580	0.00600	0.0050	0.006	0.002	0.008	0.177
	12/21/04	1.8400	<0.005	0.4120	-	-	0.284	2.536
	03/18/05	0.7690	<0.5	<0.5	-	-	<0.5	0.769
	06/16/05	0.9900	<0.5	1.2900	-	-	0.888	3.168
	09/16/05	0.7050	<0.2	0.6780	-	-	0.458	1.841
	12/15/05	Not Sampled Due to Presence of PSH						
	03/17/06	1.2400	<0.2	2.5900	-	-	2.300	6.130
	06/13/06	0.5430	<0.2	0.4450	-	-	<0.2	0.988
	09/06/06	0.4530	<0.2	0.6010	-	-	0.774	1.828
	11/15/06	0.7850	<0.02	0.4930	-	-	0.318	1.596
	02/14/07	0.9230	<0.02	2.0500	-	-	1.750	4.723
	05/11/07	0.4840	<0.200	<0.200	-	-	0.655	1.139
	08/14/07	0.4780	<0.02	0.3320	-	-	0.341	1.151
	11/01/07	0.4630	<0.100	0.1510	-	-	0.206	0.820
	02/05/08	0.3940	<0.100	0.2570	-	-	0.315	0.966
	05/05/08	0.4410	<0.0100	0.1420	-	-	0.122	0.705

**TABLE 3**  
**CONCENTRATIONS OF BENZENE & BTEX IN GROUNDWATER**

**PLAINS MARKETING, L.P.**  
**RED BYRD #1**  
**LEA COUNTY, NEW MEXICO**  
**PLAINS SRS NO: TNM RED BYRD #1**  
**NMOCD REF NO: 1R-0085**

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-3	08/04/08	0.5540	<0.005	0.1820	-	-	0.229	0.965
	11/03/08	0.3820	<0.0100	0.0844	-	-	0.191	0.657
	02/27/09	0.5818	<0.0400	0.0866	0.164	<0.0200	0.164	0.8324
	06/24/09	0.1608	<0.0400	0.022	0.0714	<0.0200	0.0714	0.2542
	09/09/09	0.407	<0.100	0.05	0.137	<0.0500	0.137	0.594
	10/29/09	Plugged and Abandoned						
MW-4	02/02/00	0.0030	<0.001	<0.001	<0.001	<0.001	<0.001	0.003
	05/15/00	0.0020	0.00100	0.0010	<0.001	<0.001	<0.001	0.004
	09/14/00	0.0070	<0.001	0.0060	0.004	<0.001	0.004	0.017
	12/05/00	0.0130	0.00100	0.0040	0.003	<0.001	0.003	0.021
	03/18/05	<0.005	<0.005	0.1220	-	-	0.096	0.218
	06/16/05	0.1420	<0.005	0.1240	-	-	0.116	0.382
	09/16/05	0.0919	<0.001	0.3210	-	-	0.258	0.671
	12/15/05	0.0625	<0.005	0.2890	-	-	0.230	0.582
	03/17/06	<0.001	0.03920	0.2510	-	-	0.211	0.501
	06/13/06	0.0258	<0.005	0.3510	-	-	0.238	0.615
	09/06/06	<0.001	0.01100	0.2690	-	-	0.205	0.485
	11/15/06	<0.001	0.00380	0.2730	-	-	0.209	0.486
	02/14/07	<0.001	<0.001	0.2850	-	-	0.222	0.507
	05/11/07	0.0455	0.01770	0.2550	-	-	0.214	0.532
	08/14/07	0.0298	0.00620	0.1540	-	-	0.112	0.302
	11/01/07	0.0154	0.00560	0.1460	-	-	0.116	0.283
	02/05/08	0.0083	0.00820	0.2190	-	-	0.172	0.408
	05/05/08	0.1950	<0.005	0.2190	-	-	0.174	0.588
	08/04/08	0.0784	0.00430	0.1840	-	-	0.148	0.415
	11/03/08	0.0102	0.00540	0.1460	-	-	0.121	0.283
	02/27/09	0.01	0.012	0.1089	0.1041	0.0065	0.1106	0.2415
	06/24/09	<0.0010	0.0033	0.027	0.0351	0.0011	0.0362	0.0665
	09/09/09	0.0235	0.0176	0.0968	0.1289	0.0249	0.1538	0.2917
	10/29/09	Plugged and Abandoned						
MW-5	02/02/00	0.0320	0.04300	0.1960	0.152	0.018	0.170	0.441
	03/18/05	Not Sampled Due to Presence of PSH						
	06/16/05	0.4090	0.07600	0.4330	-	-	0.670	1.588
	09/16/05	0.1240	<0.001	0.3020	-	-	0.340	0.766
	12/15/05	0.1490	<0.005	0.3040	-	-	0.426	0.879
	03/17/06	<0.01	<0.01	0.2730	-	-	0.394	0.667
	06/13/06	0.1480	<0.05	0.2020	-	-	0.199	0.549
	09/06/06	0.2020	<0.001	0.2500	-	-	0.285	0.737
	11/15/06	0.2070	<0.001	0.2030	-	-	0.205	0.615
	02/14/07	0.2390	<0.001	0.1660	-	-	0.281	0.686
	05/11/07	0.1900	0.06090	0.1100	-	-	0.412	0.773
	08/14/07	0.1560	<0.01	0.0385	-	-	0.361	0.556
	11/01/07	0.1110	<0.001	0.0097	-	-	0.177	0.298
	02/05/08	0.0825	0.00300	0.0158	-	-	0.193	0.294
	05/05/08	0.2230	<0.005	0.0051	-	-	0.2380	0.466
	08/04/08	0.0610	0.00190	<0.001	-	-	0.1300	0.193
	11/03/08	0.0266	<0.001	0.0067	-	-	0.1060	0.139
	02/27/09	0.0254	<0.0200	0.0107	0.0819	<0.0100	0.0819	0.118
	06/24/09	0.0065	0.0039	<0.0010	0.0461	0.0056	0.0517	0.0621
	09/09/09	0.0063	0.0062	<0.0010	0.058	0.0085	0.0665	0.079
	10/29/09	Plugged and Abandoned						

**TABLE 3**  
**CONCENTRATIONS OF BENZENE & BTEX IN GROUNDWATER**

**PLAINS MARKETING, L.P.**  
**RED BYRD #1**  
**LEA COUNTY, NEW MEXICO**  
**PLAINS SRS NO: TNM RED BYRD #1**  
**NMOCD REF NO: 1R-0085**

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-6	02/02/00	0.0470	0.00200	0.0040	0.004	0.002	0.006	0.059
	05/15/00	0.0550	0.00200	0.0050	0.002	0.001	0.003	0.065
	09/14/00	0.0460	0.00200	0.0030	<0.001	<0.001	<0.001	0.051
	12/05/00	0.0730	0.00100	0.0060	0.005	0.001	0.006	0.086
	03/07/01	0.1240	<0.001	0.0020	0.001	0.003	0.004	0.130
	05/23/01	0.0500	0.00500	<0.005	-	-	<0.005	0.055
	08/06/01	0.0420	<0.001	0.0010	<0.001	<0.001	<0.001	0.043
	10/02/01	0.0170	<0.001	<0.001	<0.001	<0.001	<0.001	0.017
	02/28/02	0.0330	<0.001	0.0020	<0.001	<0.001	<0.001	0.035
	05/14/02	0.0283	<0.001	0.0013	<0.001	<0.001	<0.001	0.030
	08/19/02	0.0320	<0.001	0.0010	<0.001	<0.001	<0.001	0.033
	11/18/02	0.0220	<0.001	<0.001	<0.001	<0.001	<0.001	0.022
	09/09/04	0.0064	<0.001	<0.001	<0.002	<0.001	<0.002	0.006
	12/21/04	0.0034	<0.001	<0.001	-	-	<0.001	0.003
	03/18/05	0.0208	<0.001	0.0029	-	-	<0.001	0.024
	06/16/05	0.1680	<0.02	0.0383	-	-	<0.02	0.206
	09/16/05	0.2390	<0.001	0.0599	-	-	0.030	0.329
	12/15/05	0.2490	<0.01	0.0538	-	-	0.017	0.320
	03/17/06	0.1340	<0.001	0.0240	-	-	0.009	0.167
	06/13/06	0.2580	<0.001	0.0272	-	-	0.014	0.299
	09/06/06	0.2890	<0.001	0.0175	-	-	<0.001	0.307
	11/15/06	0.1600	<0.001	0.0104	-	-	0.0041	0.175
	02/14/07	0.5710	0.82700	0.0933	-	-	0.1140	1.605
	05/11/07	0.2920	0.02540	0.0174	-	-	0.0154	0.350
	08/14/07	Not Sampled Due to Excavation Activities						
	11/01/07	0.2050	0.03230	0.0333	-	-	0.0216	0.292
	02/05/08	0.2790	0.00300	0.0158	-	-	0.1930	0.491
	05/05/08	0.3270	0.11500	<0.02	-	-	<0.020	0.442
	08/04/08	0.2900	0.11700	0.0294	-	-	0.0316	0.468
	11/03/08	0.1260	0.04720	0.0203	-	-	0.0231	0.217
	2/27/2009	0.0287	0.0168	0.0038	0.0025	<0.0010	0.0025	0.0518
	06/24/09	0.2292	0.21	0.0242	<0.0400	0.0328	0.0328	0.4962
	09/09/09	0.5374	0.7818	0.096	0.0832	0.0266	0.1098	1.525
	11/12/09	0.0104	0.0152	0.0028	0.0033	0.0011	0.0044	0.0328
	05/24/10	0.0113	0.0295	0.0035	0.0052	0.0019	0.0071	0.0514
	11/12/10	0.0025	0.0025	<0.0010	<0.0020	<0.0010	<0.0020	0.005
	05/11/11	0.200	0.295	<0.100	<0.200	0.108	0.108	0.603
	11/10/11	0.0541	0.0197	0.0110	0.0128	0.00594	0.01874	0.104
	06/07/12	0.0028	<0.0020	<0.0010	0.0024	<0.0010	0.00236	0.0052
	11/28/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/30/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/19/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
MW-7	02/02/00	0.0070	<0.001	0.0010	0.002	<0.001	0.002	0.010
	05/15/00	0.0040	<0.001	0.0010	<0.001	<0.001	<0.001	0.005
	09/14/00	0.0460	<0.001	0.0020	<0.001	<0.001	<0.001	0.048
	12/05/00	0.0620	<0.001	0.0020	<0.001	<0.001	<0.001	0.064
	03/07/01	0.0760	<0.001	<0.001	0.001	0.003	0.004	0.080
	05/23/01	0.0150	<0.005	<0.005	-	-	<0.005	0.015
	08/06/01	0.0110	<0.001	<0.001	<0.001	<0.001	<0.001	0.011
	10/02/01	0.0250	<0.001	<0.001	<0.001	<0.001	<0.001	0.025
	02/28/02	0.0040	<0.001	<0.001	<0.001	<0.001	<0.001	0.004
	05/14/02	0.1180	<0.001	<0.001	<0.001	<0.001	<0.001	0.118
	08/19/02	0.0140	<0.001	<0.001	<0.001	<0.001	<0.001	0.014

**TABLE 3**  
**CONCENTRATIONS OF BENZENE & BTEX IN GROUNDWATER**

**PLAINS MARKETING, L.P.**  
**RED BYRD #1**  
**LEA COUNTY, NEW MEXICO**  
**PLAINS SRS NO: TNM RED BYRD #1**  
**NMOCD REF NO: 1R-0085**

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-7	11/18/02	0.0240	<0.001	<0.001	<0.001	<0.001	<0.001	0.024
	09/08/04	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	0.000
	12/21/04	0.0057	<0.001	<0.001	-	-	<0.001	0.006
	03/18/05	0.0016	<0.001	<0.001	-	-	<0.001	0.002
	06/16/05	0.0109	<0.001	0.0040	-	-	0.002	0.017
	09/16/05	0.0079	<0.001	0.0012	-	-	<0.001	0.009
	12/15/05	0.0217	<0.001	0.0034	-	-	0.002	0.027
	03/17/06	0.0304	<0.001	0.0050	-	-	0.003	0.038
	06/13/06	0.0417	<0.001	0.0037	-	-	0.004	0.049
	09/06/06	0.0324	<0.001	0.0035	-	-	0.007	0.043
	11/15/06	0.0486	<0.001	0.0040	-	-	0.0024	0.055
	02/14/07	0.0551	<0.001	0.0047	-	-	<0.001	0.060
	05/11/07	0.0378	<0.001	0.0041	-	-	0.0074	0.049
	08/14/07	0.0143	<0.001	0.0031	-	-	0.0207	0.038
	11/01/07	0.0224	<0.001	0.0017	-	-	<0.001	0.024
	02/05/08	0.0166	<0.001	<0.001	-	-	<0.001	0.017
	05/05/08	0.1160	<0.001	<0.001	-	-	0.0043	0.120
	08/04/08	0.0083	<0.001	0.0010	-	-	<0.001	0.009
	11/03/08	0.0027	<0.001	<0.0010	-	-	0.0149	0.018
	02/27/09	0.0039	<0.0020	<0.0010	<0.0020	0.0018	0.0018	0.0057
	06/24/09	0.0011	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0011
	09/09/09	0.0051	<0.0020	0.0012	<0.0020	0.0016	0.0016	0.0079
	11/12/09	0.0046	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0046
	05/24/10	0.0015	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0015
	11/12/10	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/11/11	0.00165	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.00165
	11/10/11	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	06/07/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/28/12	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/30/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/19/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
MW-8	11/11/04	0.1850	<0.001	0.0418	-	-	0.026	0.253
	03/18/05	0.0796	<0.005	0.0686	-	-	0.022	0.170
	06/16/05	0.1110	<0.001	0.1050	-	-	0.048	0.264
	09/16/05	0.0628	<0.001	0.0637	-	-	0.025	0.152
	12/15/05	<0.001	<0.001	<0.001	-	-	0.006	0.006
	03/17/06	0.0116	<0.001	0.0122	-	-	0.025	0.048
	06/13/06	<0.001	<0.001	<0.001	-	-	0.017	0.017
	09/06/06	<0.001	<0.001	<0.001	-	-	0.015	0.015
	11/15/06	0.0366	<0.001	0.0199	-	-	0.0182	0.0747
	02/14/07	0.0718	<0.001	0.0253	-	-	0.0384	0.1355
	05/11/07	0.0442	<0.001	0.0197	-	-	0.0243	0.0882
	08/14/07	0.0413	<0.001	0.0067	-	-	0.0147	0.0627
	11/01/07	0.0251	<0.001	0.0063	-	-	0.0125	0.0439
	02/05/08	0.0319	<0.001	0.0045	-	-	0.0175	0.0539
	05/05/08	0.0061	<0.001	0.0018	-	-	0.0129	0.0208
	08/04/08	0.0051	<0.001	<0.001	-	-	0.0034	0.0085
	11/03/08	0.0297	<0.001	0.0035	-	-	0.0323	0.0655
	02/27/09	0.0344	0.0026	0.004	0.0229	0.0049	0.0278	0.0688
	06/24/09	0.005	<0.0020	<0.0010	0.0033	<0.0010	0.0033	0.0083
	09/09/09	0.017	<0.0020	0.0025	0.0113	0.0032	0.0145	0.034
	10/29/09	Plugged and Abandoned						

**TABLE 3**  
**CONCENTRATIONS OF BENZENE & BTEX IN GROUNDWATER**

**PLAINS MARKETING, L.P.**  
**RED BYRD #1**  
**LEA COUNTY, NEW MEXICO**  
**PLAINS SRS NO: TNM RED BYRD #1**  
**NMOCD REF NO: 1R-0085**

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-9	11/11/04	0.2810	<0.05	0.0884	-	-	<0.05	0.369
	03/18/05	0.0162	<0.005	<0.005	-	-	<0.005	0.016
	06/16/05	0.4620	<0.2	0.2120	-	-	<0.2	0.674
	09/16/05	0.6630	0.03980	0.2340	-	-	0.144	1.081
	12/15/05	0.4480	<0.1	0.1710	-	-	<0.1	0.619
	03/17/06	0.3790	<0.02	0.1220	-	-	0.078	0.579
	06/13/06	0.3040	<0.05	0.0723	-	-	<0.05	0.376
	09/06/06	0.1750	<0.02	0.0258	-	-	<0.02	0.201
	11/15/06	0.4000	<0.001	0.0456	-	-	0.0145	0.4601
	02/14/07	0.2760	<0.001	0.0181	-	-	0.0066	0.3007
	05/11/07	0.2000	<0.020	<0.020	-	-	<0.020	0.2000
	08/14/07	0.0983	<0.02	0.0381	-	-	0.0352	0.1716
	11/01/07	0.1400	<0.001	0.0110	-	-	<0.001	0.1510
	02/05/08	0.2360	<0.001	0.0072	-	-	0.0015	0.2447
	05/05/08	0.1980	<0.005	0.0102	-	-	0.0099	0.2181
	08/04/08	0.0270	<0.001	0.0011	-	-	<0.001	0.0281
	11/03/08	0.2790	<0.001	0.0068	-	-	0.0252	0.3110
	02/27/09	0.6513	0.0069	0.0233	0.0163	0.0189	0.0352	0.0189
	06/24/09	0.0011	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	09/09/09	0.6048	<0.0400	0.021	<0.0400	<0.0200	<0.0400	<0.0400
	10/29/09	Plugged and Abandoned						
MW-10	11/11/04	0.0813	<0.005	0.0542	-	-	0.010	0.146
	03/18/05	0.0462	<0.01	0.0206	-	-	<0.01	0.067
	06/16/05	0.0753	<0.02	0.0692	-	-	0.033	0.178
	09/16/05	0.2460	<0.001	0.1760	-	-	0.095	0.517
	12/15/05	0.2400	<0.1	0.1930	-	-	<0.1	0.433
	03/17/06	0.2280	<0.01	0.1860	-	-	0.086	0.500
	06/13/06	0.2320	<0.05	0.2040	-	-	0.065	0.501
	09/06/06	0.1380	<0.02	0.0622	-	-	0.043	0.243
	11/15/06	0.1910	<0.001	0.1670	-	-	0.0942	0.452
	02/14/07	0.1830	<0.001	0.1620	-	-	0.0819	0.427
	05/11/07	0.1110	<0.010	0.0703	-	-	0.0550	0.236
	08/14/07	0.0784	<0.01	0.0291	-	-	0.0177	0.125
	11/01/07	0.1100	<0.001	0.0412	-	-	0.0368	0.188
	02/05/08	0.1180	<0.001	0.0029	-	-	0.0240	0.145
	05/05/08	0.1150	<0.005	0.0082	-	-	0.0305	0.154
	08/04/08	0.0762	<0.001	0.0055	-	-	0.0131	0.095
	11/03/08	0.0625	<0.001	0.0050	-	-	0.0279	0.095
	02/27/09	0.0816	0.0046	0.0078	0.0124	<0.0010	0.0124	0.1064
	6/24/09	0.0656	<0.0400	<0.0200	<0.0400	<0.0200	<0.0400	0.0656
	9/9/09	0.0015	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0015
	10/29/09	Plugged and Abandoned						
MW-11	11/11/04	0.0195	<0.005	<0.005	-	-	<0.005	0.020
	03/18/05	0.0648	<0.005	0.0104	-	-	<0.005	0.075
	06/16/05	0.1640	<0.01	0.0132	-	-	<0.01	0.177
	09/16/05	0.2070	<0.001	0.0058	-	-	<0.001	0.213
	12/15/05	<0.001	<0.001	<0.001	-	-	<0.001	<0.001
	03/17/06	<0.001	<0.001	<0.001	-	-	0.010	0.010
	06/13/06	0.1550	<0.02	<0.02	-	-	<0.02	0.155
	09/06/06	0.0144	<0.001	<0.001	-	-	<0.001	0.014
	11/15/06	0.2280	<0.001	0.0456	-	-	0.0118	0.2854
	02/14/07	0.2760	0.00110	0.0571	-	-	0.0140	0.3482

**TABLE 3**  
**CONCENTRATIONS OF BENZENE & BTEX IN GROUNDWATER**

**PLAINS MARKETING, L.P.**  
**RED BYRD #1**  
**LEA COUNTY, NEW MEXICO**  
**PLAINS SRS NO: TNM RED BYRD #1**  
**NMOCD REF NO: 1R-0085**

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-11	05/11/07	0.2000	<0.010	0.0439	-	-	<0.010	0.2439
	08/14/07	0.1440	<0.02	0.0290	-	-	<0.02	0.1730
	11/01/07	0.2680	<0.001	0.0602	-	-	0.0178	0.3460
	02/05/08	0.2600	<0.001	0.0599	-	-	0.0273	0.3472
	05/05/08	0.2310	<0.005	0.0456	-	-	0.0248	0.3014
	08/04/08	0.0375	<0.005	<0.005	-	-	<0.005	0.0375
	11/03/08	0.1050	<0.001	0.0108	-	-	0.0217	0.1375
	02/27/09	0.432	<0.0200	0.0566	0.027	<0.0100	0.027	0.5156
	06/24/09	0.311	<0.0400	0.0326	<0.0400	<0.0200	<0.0400	0.3436
	09/09/09	0.0201	<0.0020	0.003	<0.0020	<0.0010	<0.0020	0.0231
	11/12/09	0.0089	<0.0020	<0.0010	<0.0020	0.0017	0.0017	0.0106
	05/24/10	0.0465	<0.0020	0.0084	0.0047	0.0074	0.0121	0.067
	11/12/10	0.0142	0.0030	0.0052	0.0063	0.0018	0.0081	0.0305
	05/11/11	0.0371	<0.0020	0.0159	0.00745	<0.0010	0.00745	0.0605
	11/10/11	0.0460	0.0108	0.0256	0.0381	0.0275	0.0656	0.148
	06/07/12	0.0020	<0.0020	0.0019	<0.0020	0.0014	0.00144	0.0053
	11/28/12	0.0129	0.0031	0.0065	0.0050	0.0032	0.00825	0.0307
	05/30/13	0.0362	0.0048	0.0116	0.0074	0.0062	0.01365	0.0663
	11/19/13	0.0052	0.0022	0.0066	0.0091	<0.0010	0.00908	0.0231
MW-12	11/11/04	0.0076	<0.005	<0.005	-	-	0.010	0.017
	03/18/05	0.0580	<0.005	0.0427	-	-	0.042	0.143
	06/16/05	0.1070	<0.02	0.0757	-	-	0.071	0.254
	09/16/05	0.0422	<0.02	0.0326	-	-	<0.02	0.075
	12/15/05	0.0226	<0.001	1.0000	-	-	0.011	1.034
	03/17/06	0.1150	<0.1	<0.1	-	-	<0.1	0.115
	06/13/06	0.1270	<0.001	0.0057	-	-	0.045	0.178
	09/06/06	0.0198	<0.001	0.0015	-	-	0.005	0.026
	11/15/06	0.1320	<0.001	0.0461	-	-	0.0709	0.2490
	02/14/07	Not Sampled Due to Presence of PSH						
	05/11/07	Not Sampled Due to Presence of PSH						
	08/14/07	Not Sampled Due to Presence of PSH						
	11/01/07	Not Sampled Due to Presence of PSH						
	02/05/08	Not Sampled Due to Presence of PSH						
	11/03/08	0.7290	0.21300	0.9940	-	-	2.6400	4.5760
	02/27/09	Not Sampled Due to Presence of PSH						
	06/24/09	Not Sampled Due to Presence of PSH						
	09/09/09	Not Sampled Due to Presence of PSH						
	11/12/09	0.0892	<0.0200	0.1112	0.1559	0.0132	0.1691	0.3695
		No Longer Sampled Due to Presence of PSH						
MW-13	03/17/06	<0.001	<0.001	<0.001	-	-	<0.001	<0.001
	06/13/06	<0.001	<0.001	<0.001	-	-	<0.001	<0.001
	09/06/06	<0.001	<0.001	<0.001	-	-	0.004	0.004
	11/15/06	<0.001	<0.001	<0.001	-	-	0.0011	0.001
	02/14/07	<0.001	<0.001	<0.001	-	-	0.0020	0.002
	05/11/07	<0.001	<0.001	<0.001	-	-	0.0098	0.0098
	08/14/07	<0.001	<0.001	<0.001	-	-	<0.001	<0.001
	11/01/07	<0.001	<0.001	<0.001	-	-	<0.001	<0.001
	02/05/08	<0.001	<0.001	<0.001	-	-	0.0021	0.0021
	05/05/08	<0.001	<0.001	<0.001	-	-	0.0013	0.0013
	08/04/08	<0.001	<0.001	<0.001	-	-	<0.001	<0.001
	11/03/08	<0.001	<0.001	<0.001	-	-	<0.001	<0.001
	02/27/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020

**TABLE 3**  
**CONCENTRATIONS OF BENZENE & BTEX IN GROUNDWATER**

**PLAINS MARKETING, L.P.**  
**RED BYRD #1**  
**LEA COUNTY, NEW MEXICO**  
**PLAINS SRS NO: TNM RED BYRD #1**  
**NMOCD REF NO: 1R-0085**

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-13	06/24/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	09/09/09	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	10/29/09	Plugged and Abandoned						
MW-14	03/17/06	<0.005	<0.005	<0.005	-	-	<0.005	<0.005
	06/13/06	<b>0.0112</b>	<0.001	0.0025	-	-	0.003	0.017
	09/06/06	<b>0.0200</b>	0.00250	0.0115	-	-	0.032	0.066
	11/15/06	<b>0.0188</b>	<0.001	0.0031	-	-	0.0145	0.0364
	02/14/07	<0.001	<0.001	<0.001	-	-	0.0164	0.0164
	05/11/07	<b>0.0110</b>	<0.001	<0.001	-	-	0.0066	0.0176
	08/14/07	0.0085	<0.001	<0.001	-	-	0.0118	0.0203
	11/01/07	0.0051	<0.001	<0.001	-	-	<0.001	0.0051
	02/05/08	0.0095	<0.001	<0.001	-	-	<0.001	0.0095
	05/05/08	0.0072	0.00150	<0.001	-	-	0.0041	0.0128
	08/04/08	0.0076	0.00130	0.0017	-	-	0.0026	0.0132
	11/03/08	0.0062	<0.00100	<0.00100	-	-	0.0147	0.0209
	02/27/09	0.0067	0.0033	0.0017	0.0045	0.0046	0.0091	0.0208
	06/24/09	0.0037	<0.0020	0.0012	<0.0020	<0.0010	<0.0020	0.0049
	09/09/09	0.004	0.0025	0.0019	<0.0020	<0.0010	<0.0020	0.0084
	10/29/09	Plugged and Abandoned						
MW-15	03/17/06	<b>0.4770</b>	<0.02	<0.02	-	-	<0.02	0.477
	06/13/06	<b>0.5670</b>	<0.02	0.1810	-	-	0.114	0.862
	09/06/06	<b>0.6980</b>	<0.02	0.2470	-	-	0.106	1.051
	11/15/06	<b>0.6020</b>	<0.02	0.2650	-	-	0.134	1.001
	02/14/07	<b>0.2540</b>	<0.001	0.1480	-	-	0.091	0.493
	05/11/07	<b>0.4380</b>	<0.010	0.2030	-	-	0.087	0.728
	08/14/07	<b>0.2960</b>	<0.01	0.1940	-	-	0.114	0.604
	11/01/07	<b>1.0700</b>	<0.1	0.3580	-	-	0.175	1.603
	02/05/08	<b>0.5000</b>	<0.001	0.1590	-	-	0.0861	0.745
	05/05/08	<b>0.5980</b>	<0.005	0.1900	-	-	0.0919	0.880
	08/04/08	<b>0.0660</b>	<0.005	0.0144	-	-	0.0108	0.091
	11/03/08	<b>0.4080</b>	<0.0100	0.1270	-	-	0.1770	0.712
	02/27/09	0.9456	0.0034	0.1223	0.0594	0.007	0.0664	1.1377
	06/24/09	0.6999	<0.0200	0.0789	0.0405	<0.0100	0.0405	0.8193
	09/09/09	0.9894	<0.0400	0.1772	0.0776	<0.0200	0.0776	1.2442
	10/29/09	Plugged and Abandoned						
MW-16	03/17/06	<b>0.1990</b>	<0.1	<0.1	-	-	<0.1	0.199
	06/13/06	<b>0.2330</b>	<0.2	<0.2	-	-	<0.2	0.233
	09/06/06	<b>0.1460</b>	<0.1	<0.1	-	-	<0.1	0.146
	11/15/06	<b>0.1840</b>	<0.001	0.1500	-	-	0.110	0.444
	02/14/07	<b>0.1920</b>	<0.001	0.1420	-	-	0.106	0.440
	05/11/07	<0.100	<0.100	0.1110	-	-	<0.100	0.111
	08/14/07	<b>0.0801</b>	<0.01	0.0454	-	-	0.0318	0.157
	11/01/07	<b>0.1160</b>	<0.001	0.1160	-	-	0.0870	0.319
	02/05/08	<b>0.0796</b>	<0.005	0.6110	-	-	0.0503	0.741
	05/05/08	<b>0.1280</b>	<0.005	0.0824	-	-	0.0534	0.264
	08/04/08	<b>0.0566</b>	<0.001	0.0334	-	-	0.0204	0.1104
	11/03/08	<b>0.0732</b>	<0.005	0.0722	-	-	0.1010	0.2464
	02/27/09	0.2908	0.0053	0.2225	0.1248	0.0067	0.1315	0.6501
	06/24/09	0.128	<0.0400	0.0916	0.0566	<0.0200	0.0566	0.2762
	09/09/09	0.2128	<0.0400	0.1666	0.0948	<0.0200	0.0948	0.4742
	11/12/09	0.014	0.0053	0.0103	0.0086	0.0092	0.0178	0.0474

PLAINS MARKETING, L.P.  
RED BYRD #1  
LEA COUNTY, NEW MEXICO  
PLAINS SRS NO: TNM RED BYRD #1  
NMOCD REF NO: 1R-0085

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**TABLE 3**  
**CONCENTRATIONS OF BENZENE & BTEX IN GROUNDWATER**

**PLAINS MARKETING, L.P.**  
**RED BYRD #1**  
**LEA COUNTY, NEW MEXICO**  
**PLAINS SRS NO: TNM RED BYRD #1**  
**NMOCD REF NO: 1R-0085**

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-18	06/07/12	0.0042	0.0063	0.0102	0.0093	0.0052	0.01447	0.0351
	11/28/12	0.0015	0.0050	0.0066	0.0084	0.0040	0.01233	0.0255
	05/30/13	0.0029	0.0077	0.0030	0.0054	0.0052	0.01063	0.0243
	11/19/13	<0.0010	0.00235	<0.0010	<0.0020	<0.0010	<0.0020	0.00235
MW-19	08/04/08	<0.001	<0.001	0.0039	-	-	0.0039	0.0078
	08/22/08	<0.001	<0.001	0.0017	-	-	<0.001	0.0017
	11/03/08	0.0012	<0.001	0.0108	-	-	0.0201	0.0321
	02/27/09	0.0027	<0.0020	0.0252	0.0159	0.004	0.0199	0.0478
	06/24/09	0.0018	<0.0020	0.0114	0.0067	0.0011	0.0078	0.021
	09/09/09	0.0024	<0.0020	0.0878	0.0498	<0.0010	0.0498	0.14
	11/12/09	0.0064	<0.0020	0.0025	<0.0020	<0.0010	<0.0020	0.0089
	05/24/10	0.0013	<0.0020	0.0032	<0.0020	<0.0010	<0.0020	0.0045
	11/12/10	0.0015	<0.0020	0.0021	<0.0020	<0.0010	<0.0020	0.0036
	05/11/11	0.00359	<0.0020	0.0100	0.00316	0.00246	0.00562	0.0192
	11/10/11	0.00106	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.00106
	06/07/12	0.0019	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0019
	11/28/12	0.0012	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0012
	05/30/13	0.0016	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0016
	11/19/13	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
EB - 1	09/14/00	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	12/05/00	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	03/07/01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	05/23/01	<0.005	<0.005	<0.005	-	-	<0.005	<0.001
	08/06/01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	10/02/02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	02/28/02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	05/14/02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	08/19/02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	11/18/02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
<b>NMOCD CRITERIA</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>TOTAL XYLENES 0.62</b>			

Note: Monitor well MW-12 is no longer sampled due to the presence of PSH.

- = Not analyzed

# **Appendices**

# **Appendix A**

## **Laboratory Analytical Reports**

# **Analytical Report 464202**

**for**

## **PLAINS ALL AMERICAN EH&S**

**Project Manager: Ben Arguijo**  
**Red Byrd Ranch Historical**

**10-JUN-13**

Collected By: Client



**12600 West I-20 East Odessa, Texas 79765**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD ( L10-135)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Lakeland: Florida (E84098)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)

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

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

10-JUN-13

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

Reference: XENCO Report No(s): **464202**  
**Red Byrd Ranch Historical**  
Project Address: Lea County, NM

**Ben Arguijo:**

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(s) 464202. 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. The uncertainty of measurement associated with the results of analysis reported is available upon request. 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. 464202 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,



---

**Kelsey Brooks**

Project Manager

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*Certified and approved by numerous States and Agencies.*

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Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America



## Sample Cross Reference 464202



### PLAINS ALL AMERICAN EH&S, Midland, TX

Red Byrd Ranch Historical

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-6	W	05-30-13 13:40		464202-001
MW-19	W	05-30-13 12:40		464202-002
MW-7	W	05-30-13 13:20		464202-003
MW-18	W	05-30-13 14:00		464202-004
MW-11	W	05-30-13 14:20		464202-005
MW-17	W	05-30-13 11:05		464202-006
MW-16	W	05-30-13 11:40		464202-007



## CASE NARRATIVE



***Client Name: PLAINS ALL AMERICAN EH&S***

***Project Name: Red Byrd Ranch Historical***

Project ID:

Work Order Number(s): 464202

Report Date: 10-JUN-13

Date Received: 05/30/2013

---

**Sample receipt non conformances and comments:**

---

**Sample receipt non conformances and comments per sample:**

None

# Certificate of Analysis Summary 464202

PLAINS ALL AMERICAN EH&S, Midland, TX



**Project Id:**

**Contact:** Ben Arguijo

**Project Name:** Red Byrd Ranch Historical

**Date Received in Lab:** Thu May-30-13 04:07 pm

**Report Date:** 10-JUN-13

**Project Location:** Lea County, NM

**Project Manager:** Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	464202-001	464202-002	464202-003	464202-004	464202-005	464202-006
	<i>Field Id:</i>	MW-6	MW-19	MW-7	MW-18	MW-11	MW-17
	<i>Depth:</i>						
	<i>Matrix:</i>	WATER	WATER	WATER	WATER	WATER	WATER
	<i>Sampled:</i>	May-30-13 13:40	May-30-13 12:40	May-30-13 13:20	May-30-13 14:00	May-30-13 14:20	May-30-13 11:05
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Jun-05-13 15:00	Jun-05-13 15:00	Jun-05-13 15:00	Jun-05-13 15:00	Jun-05-13 15:00	Jun-05-13 15:00
	<i>Analyzed:</i>	Jun-05-13 17:13	Jun-05-13 17:29	Jun-05-13 17:46	Jun-05-13 18:02	Jun-05-13 18:18	Jun-05-13 18:34
	<i>Units/RL:</i>	mg/L RL	mg/L RL	mg/L RL	mg/L RL	mg/L RL	mg/L RL
Benzene		ND 0.00100	0.00159 0.00100	ND 0.00100	0.00294 0.00100	0.0362 0.00100	0.00700 0.00100
Toluene		ND 0.00200	ND 0.00200	ND 0.00200	0.00770 0.00200	0.00481 0.00200	ND 0.00200
Ethylbenzene		ND 0.00100	ND 0.00100	ND 0.00100	0.00299 0.00100	0.0116 0.00100	0.00388 0.00100
m,p-Xylenes		ND 0.00200	ND 0.00200	ND 0.00200	0.00541 0.00200	0.00743 0.00200	0.00400 0.00200
o-Xylene		ND 0.00100	ND 0.00100	ND 0.00100	0.00522 0.00100	0.00622 0.00100	ND 0.00100
Total Xylenes		ND 0.00100	ND 0.00100	ND 0.00100	0.0106 0.00100	0.0137 0.00100	0.00400 0.00100
Total BTEX		ND 0.00100	0.00159 0.00100	ND 0.00100	0.0243 0.00100	0.0663 0.00100	0.0149 0.00100

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.  
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.  
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.  
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi



Kelsey Brooks  
Project Manager





# Certificate of Analysis Summary 464202

PLAINS ALL AMERICAN EH&S, Midland, TX



**Project Id:**

**Contact:** Ben Arguijo

**Project Name:** Red Byrd Ranch Historical

**Date Received in Lab:** Thu May-30-13 04:07 pm

**Report Date:** 10-JUN-13

**Project Location:** Lea County, NM

**Project Manager:** Kelsey Brooks

<b><i>Analysis Requested</i></b>	<b><i>Lab Id:</i></b>	464202-007					
	<b><i>Field Id:</i></b>	MW-16					
	<b><i>Depth:</i></b>						
	<b><i>Matrix:</i></b>	WATER					
	<b><i>Sampled:</i></b>	May-30-13 11:40					
<b>BTEX by EPA 8021B</b>	<b><i>Extracted:</i></b>	Jun-05-13 15:00					
	<b><i>Analyzed:</i></b>	Jun-05-13 18:50					
	<b><i>Units/RL:</i></b>	mg/L RL					
Benzene		0.00272 0.00100					
Toluene		ND 0.00200					
Ethylbenzene		0.00360 0.00100					
m,p-Xylenes		0.00313 0.00200					
o-Xylene		0.00165 0.00100					
Total Xylenes		0.00478 0.00100					
Total BTEX		0.0111 0.00100					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.  
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XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.  
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Kelsey Brooks  
Project Manager

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect 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 quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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4143 Greenbriar Dr, Stafford, TX 77477  
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 5332 Blackberry Drive, San Antonio TX 78238  
 2505 North Falkenburg Rd, Tampa, FL 33619  
 12600 West I-20 East, Odessa, TX 79765  
 6017 Financial Drive, Norcross, GA 30071  
 3725 E. Atlanta Ave, Phoenix, AZ 85040

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(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	

## Form 2 - Surrogate Recoveries

Project Name: Red Byrd Ranch Historical

Work Orders : 464202, 464202

Project ID:

Lab Batch #: 915499

Sample: 464202-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 17:13

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0247	0.0300	82	80-120	

Lab Batch #: 915499

Sample: 464202-002 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 17:29

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0261	0.0300	87	80-120	

Lab Batch #: 915499

Sample: 464202-003 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 17:46

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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	0.0269	0.0300	90	80-120	

Lab Batch #: 915499

Sample: 464202-004 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 18:02

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 915499

Sample: 464202-005 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 18:18

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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	0.0289	0.0300	96	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

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

## Form 2 - Surrogate Recoveries

Project Name: Red Byrd Ranch Historical

Work Orders : 464202, 464202

Project ID:

Lab Batch #: 915499

Sample: 464202-006 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 18:34

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

Lab Batch #: 915499

Sample: 464202-007 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 18:50

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 915499

Sample: 639246-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 16:57

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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	0.0249	0.0300	83	80-120	

Lab Batch #: 915499

Sample: 639246-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 16:09

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0342	0.0300	114	80-120	

Lab Batch #: 915499

Sample: 639246-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 16:25

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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	0.0322	0.0300	107	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

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



## Form 2 - Surrogate Recoveries

Project Name: Red Byrd Ranch Historical

Work Orders : 464202, 464202

Project ID:

Lab Batch #: 915499

Sample: 464202-007 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 19:54

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0319	0.0300	106	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 915499

Sample: 464202-007 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 06/05/13 20:10

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

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

**Project Name: Red Byrd Ranch Historical**

**Work Order #:** 464202, 464202

**Analyst:** KEB

**Date Prepared:** 06/05/2013

**Project ID:**

**Date Analyzed:** 06/05/2013

**Lab Batch ID:** 915499

**Sample:** 639246-1-BKS

**Batch #:** 1

**Matrix:** Water

**Units:** mg/L

## 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	<0.00100	0.100	0.105	105	0.100	0.103	103	2	70-125	25	
Toluene	<0.00200	0.100	0.0945	95	0.100	0.0911	91	4	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0914	91	0.100	0.0875	88	4	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.179	90	0.200	0.171	86	5	70-131	25	
o-Xylene	<0.00100	0.100	0.0933	93	0.100	0.0895	90	4	71-133	25	

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

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

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

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



Project Name: Red Byrd Ranch Historical

Work Order # : 464202

Project ID:

Lab Batch ID: 915499

QC- Sample ID: 464202-007 S

Batch #: 1 Matrix: Water

Date Analyzed: 06/05/2013

Date Prepared: 06/05/2013

Analyst: KEB

Reporting Units: mg/L

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.00272	0.100	0.112	109	0.100	0.104	101	7	70-125	25	
Toluene	<0.00200	0.100	0.0928	93	0.100	0.0880	88	5	70-125	25	
Ethylbenzene	0.00360	0.100	0.0887	85	0.100	0.0858	82	3	71-129	25	
m,p-Xylenes	0.00313	0.200	0.167	82	0.200	0.163	80	2	70-131	25	
o-Xylene	0.00165	0.100	0.0859	84	0.100	0.0829	81	4	71-133	25	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



12600 West I-20 East  
Odessa, Texas 79765

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

Project Manager: Ben J. Arguijo

Project Name: Red Byrd Ranch Historical

Company Name: Basin Environmental Service Technologies, LLC

Project #: Red Byrd Ranch TNM Historical

Company Address: P.O. Box 301

Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260

PO #: \_\_\_\_\_

Telephone No: (575)396-2378

Fax No: (575) 396-1429

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: *Paul Young*

e-mail: pm@basinenv.com

(lab use only)  
**ORDER #:** 464202

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None	Other ( Specify)	DW = Drinking Water SL= Sludge GW = Groundwater S= Soil/soil NP = Non-Potable Specify Other	TPH: 418.1 8015M 8015	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 S	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	CHLORIDES	Total Dissolved Solids	RUSH TAT (Pre-Schedule) 24,	Standard TAT 4 DAY	
01	MW-6			5/30/2013	1:40		3	X	X							GW								X								X
02	MW-19			5/30/2013	12:40		3	X	X							GW								X								X
03	MW-7			5/30/2013	1:20		3	X	X							GW								X								X
04	MW-18			5/30/2013	2:00		3	X	X							GW								X								X
05	MW-11			5/30/2013	2:20		3	X	X							GW								X								X
06	MQ-17			5/30/2013	11:05		3	X	X							GW								X								X
07	MW-16			5/30/2013	11:40		3	X	X							GW								X								X

### Special Instructions:

Relinquished by: <u><i>Paul Young</i></u>	Date: <u>5/30/13</u>	Time: <u>4:07</u>	Received by: <u><i>Verla Resendiz</i></u>	Date: <u>5-30-13</u>	Time: <u>4:07</u>
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: <u><i>Shawna Smith</i></u>	Date: <u>5-31-13</u>	Time: <u>11:00</u>

### Laboratory Comments:

Sample Containers Intact?	<u>(Y)</u>	N
VOCs Free of Headspace?	<u>(Y)</u>	N
Labels on container(s)	<u>(Y)</u>	N
Custody seals on container(s)	<u>(Y)</u>	N
Custody seals on cooler(s)	<u>(Y)</u>	N
Sample Hand Delivered	<u>(Y)</u>	N
by Sampler/Client Rep.?	<u>(Y)</u>	N
by Courier?	<u>(Y)</u>	N
UPS	<u>(Y)</u>	N
DHL	<u>(Y)</u>	N
FedEx	<u>(Y)</u>	N
Lone Star	<u>(Y)</u>	N
Temperature Upon Receipt:	<u>10.0</u>	<u>15</u>





# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



**Client:** PLAINS ALL AMERICAN EH&S

**Date/ Time Received:** 05/30/2013 04:07:00 PM

**Work Order #:** 464202

**Acceptable Temperature Range:** 0 - 6 degC

**Air and Metal samples Acceptable Range:** Ambient

**Temperature Measuring device used :**

### Sample Receipt Checklist

### Comments

#1 *Temperature of cooler(s)?	1.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Sample instructions complete on Chain of Custody?	Yes
#9 Any missing/extra samples?	No
#10 Chain of Custody signed when relinquished/ received?	Yes
#11 Chain of Custody agrees with sample label(s)?	Yes
#12 Container label(s) legible and intact?	Yes
#13 Sample matrix/ properties agree with Chain of Custody?	Yes
#14 Samples in proper container/ bottle?	Yes
#15 Samples properly preserved?	Yes
#16 Sample container(s) intact?	Yes
#17 Sufficient sample amount for indicated test(s)?	Yes
#18 All samples received within hold time?	Yes
#19 Subcontract of sample(s)?	Yes
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	Yes
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	Yes
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	Yes

**\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:
----------	-----------------

**Checklist completed by:**

*Kelsey Brooks*  
Kelsey Brooks

Date: 06/03/2013

**Checklist reviewed by:**

*Kelsey Brooks*  
Kelsey Brooks

Date: 06/03/2013

# **Analytical Report 474604**

**for**

## **PLAINS ALL AMERICAN EH&S**

**Project Manager: Ben Arguijo**

**SRS TNM Red Byrd #1**

**03-DEC-13**

Collected By: Client



**12600 West I-20 East Odessa, Texas 79765**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-13-15-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD ( L10-135)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Lakeland: Florida (E84098)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)

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

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



03-DEC-13

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

Reference: XENCO Report No(s): **474604**  
**SRS TNM Red Byrd #1**  
Project Address: New Mexico

**Ben Arguijo:**

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(s) 474604. 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. The uncertainty of measurement associated with the results of analysis reported is available upon request. 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. 474604 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,

---

**Kelsey Brooks**

Project Manager

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## Sample Cross Reference 474604



### PLAINS ALL AMERICAN EH&S, Midland, TX

SRS TNM Red Byrd #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-6	W	11-19-13 10:30		474604-001
MW-7	W	11-19-13 10:00		474604-002
MW-11	W	11-19-13 11:30		474604-003
MW-16	W	11-19-13 08:30		474604-004
MW-17	W	11-19-13 09:00		474604-005
MW-18	W	11-19-13 11:00		474604-006
MW-19	W	11-19-13 09:30		474604-007



## CASE NARRATIVE



***Client Name: PLAINS ALL AMERICAN EH&S***

***Project Name: SRS TNM Red Byrd #1***

Project ID:

Work Order Number(s): 474604

Report Date: 03-DEC-13

Date Received: 11/20/2013

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**Sample receipt non conformances and comments:**

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**Sample receipt non conformances and comments per sample:**

None

# Certificate of Analysis Summary 474604

PLAINS ALL AMERICAN EH&S, Midland, TX



**Project Id:**

**Contact:** Ben Arguijo

**Project Location:** New Mexico

**Project Name:** SRS TNM Red Byrd #1

**Date Received in Lab:** Wed Nov-20-13 08:35 am

**Report Date:** 03-DEC-13

**Project Manager:** Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	474604-001 MW-6  WATER Nov-19-13 10:30	474604-002 MW-7  WATER Nov-19-13 10:00	474604-003 MW-11  WATER Nov-19-13 11:30	474604-004 MW-16  WATER Nov-19-13 08:30	474604-005 MW-17  WATER Nov-19-13 09:00	474604-006 MW-18  WATER Nov-19-13 11:00
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	Nov-22-13 12:00 Nov-22-13 21:30 mg/L RL	Nov-22-13 12:00 Nov-22-13 21:47 mg/L RL	Nov-22-13 12:00 Dec-03-13 09:14 mg/L RL	Nov-22-13 12:00 Dec-03-13 09:30 mg/L RL	Nov-22-13 12:00 Nov-22-13 22:35 mg/L RL	Nov-22-13 12:00 Nov-22-13 22:52 mg/L RL
Benzene		ND 0.00100	ND 0.00100	0.00515 0.00100	0.00534 0.00100	0.0290 0.00100	ND 0.00100
Toluene		ND 0.00200	ND 0.00200	0.00222 0.00200	ND 0.00200	ND 0.00200	0.00235 0.00200
Ethylbenzene		ND 0.00100	ND 0.00100	0.00664 0.00100	0.00402 0.00100	0.0129 0.00100	ND 0.00100
m,p-Xylenes		ND 0.00200	ND 0.00200	0.00908 0.00200	0.00644 0.00200	0.0102 0.00200	ND 0.00200
o-Xylene		ND 0.00100	ND 0.00100	ND 0.00100	ND 0.00100	0.00295 0.00100	ND 0.00100
Total Xylenes		ND 0.00100	ND 0.00100	0.00908 0.00100	0.00644 0.00100	0.0132 0.00100	ND 0.00100
Total BTEX		ND 0.00100	ND 0.00100	0.0231 0.00100	0.0158 0.00100	0.0551 0.00100	0.00235 0.00100

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.  
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.  
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.  
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 474604

PLAINS ALL AMERICAN EH&S, Midland, TX



**Project Id:**

**Contact:** Ben Arguijo

**Project Location:** New Mexico

**Project Name:** SRS TNM Red Byrd #1

**Date Received in Lab:** Wed Nov-20-13 08:35 am

**Report Date:** 03-DEC-13

**Project Manager:** Kelsey Brooks

<b>Analysis Requested</b>	<b>Lab Id:</b> <b>Field Id:</b> <b>Depth:</b> <b>Matrix:</b> <b>Sampled:</b>	474604-007 MW-19  WATER Nov-19-13 09:30					
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b> <b>Analyzed:</b> <b>Units/RL:</b>	Nov-25-13 13:00 Nov-25-13 19:52 mg/L      RL					
Benzene		ND 0.00100					
Toluene		ND 0.00200					
Ethylbenzene		ND 0.00100					
m,p-Xylenes		ND 0.00200					
o-Xylene		ND 0.00100					
Total Xylenes		ND 0.00100					
Total BTEX		ND 0.00100					

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Kelsey Brooks  
Project Manager

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect 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 quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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 2505 North Falkenburg Rd, Tampa, FL 33619  
 12600 West I-20 East, Odessa, TX 79765  
 6017 Financial Drive, Norcross, GA 30071  
 3725 E. Atlanta Ave, Phoenix, AZ 85040

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(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	





## Form 2 - Surrogate Recoveries

Project Name: SRS TNM Red Byrd #1

Work Orders : 474604,

Project ID:

Lab Batch #: 928368

Sample: 474604-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/22/13 21:30

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0327	0.0300	109	80-120	

Lab Batch #: 928368

Sample: 474604-002 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/22/13 21:47

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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	0.0329	0.0300	110	80-120	

Lab Batch #: 928368

Sample: 474604-005 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/22/13 22:35

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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	0.0327	0.0300	109	80-120	

Lab Batch #: 928368

Sample: 474604-006 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/22/13 22:52

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

Lab Batch #: 928546

Sample: 474604-007 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/25/13 19:52

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	80-120	
4-Bromofluorobenzene	0.0328	0.0300	109	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

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



## Form 2 - Surrogate Recoveries

Project Name: SRS TNM Red Byrd #1

Work Orders : 474604,

Lab Batch #: 928368

Sample: 474604-003 / SMP

Project ID:

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/03/13 09:14

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 928368

Sample: 474604-004 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 12/03/13 09:30

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 928368

Sample: 647436-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/22/13 16:52

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0327	0.0300	109	80-120	

Lab Batch #: 928546

Sample: 647540-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/25/13 19:19

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 928368

Sample: 647436-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/22/13 15:30

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

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



## Form 2 - Surrogate Recoveries

Project Name: SRS TNM Red Byrd #1

Work Orders : 474604,

Lab Batch #: 928546

Sample: 647540-1-BKS / BKS

Project ID:

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/25/13 18:12

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0328	0.0300	109	80-120	

Lab Batch #: 928368

Sample: 647436-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/22/13 15:46

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0321	0.0300	107	80-120	

Lab Batch #: 928546

Sample: 647540-1-BSD / BSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/25/13 17:56

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

Lab Batch #: 928368

Sample: 474413-001 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/22/13 16:03

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0326	0.0300	109	80-120	

Lab Batch #: 928546

Sample: 474604-007 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/25/13 18:29

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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	0.0329	0.0300	110	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

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



# Form 2 - Surrogate Recoveries

Project Name: SRS TNM Red Byrd #1

Work Orders : 474604,

Lab Batch #: 928368

Sample: 474413-001 SD / MSD

Project ID:

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/22/13 16:19

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 928546

Sample: 474604-007 SD / MSD

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/25/13 18:46

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0328	0.0300	109	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

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

**Project Name: SRS TNM Red Byrd #1**

**Work Order #: 474604**

**Project ID:**

**Analyst: ARM**

**Date Prepared: 11/22/2013**

**Date Analyzed: 11/22/2013**

**Lab Batch ID: 928368**

**Sample: 647436-1-BKS**

**Batch #: 1**

**Matrix: Water**

**Units: mg/L**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00100	0.100	0.0906	91	0.100	0.0931	93	3	70-125	25	
Toluene	<0.00200	0.100	0.0944	94	0.100	0.0951	95	1	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0910	91	0.100	0.0902	90	1	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.205	103	0.200	0.205	103	0	70-131	25	
o-Xylene	<0.00100	0.100	0.0990	99	0.100	0.0991	99	0	71-133	25	

**Analyst: ARM**

**Date Prepared: 11/25/2013**

**Date Analyzed: 11/25/2013**

**Lab Batch ID: 928546**

**Sample: 647540-1-BKS**

**Batch #: 1**

**Matrix: Water**

**Units: mg/L**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00100	0.100	0.0989	99	0.100	0.0965	97	2	70-125	25	
Toluene	<0.00200	0.100	0.0977	98	0.100	0.0972	97	1	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0955	96	0.100	0.0935	94	2	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.214	107	0.200	0.207	104	3	70-131	25	
o-Xylene	<0.00100	0.100	0.105	105	0.100	0.102	102	3	71-133	25	

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

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

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

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



Project Name: SRS TNM Red Byrd #1

Work Order #: 474604

Project ID:

Lab Batch ID: 928368

QC- Sample ID: 474413-001 S

Batch #: 1 Matrix: Water

Date Analyzed: 11/22/2013

Date Prepared: 11/22/2013

Analyst: ARM

Reporting Units: mg/L

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	0.0241	0.100	0.116	92	0.100	0.112	88	4	70-125	25	
Toluene	<0.00200	0.100	0.0978	98	0.100	0.0925	93	6	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0933	93	0.100	0.0901	90	3	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.213	107	0.200	0.204	102	4	70-131	25	
o-Xylene	<0.00100	0.100	0.101	101	0.100	0.0980	98	3	71-133	25	

Lab Batch ID: 928546

QC- Sample ID: 474604-007 S

Batch #: 1 Matrix: Water

Date Analyzed: 11/25/2013

Date Prepared: 11/25/2013

Analyst: ARM

Reporting Units: mg/L

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0928	93	0.100	0.0911	91	2	70-125	25	
Toluene	<0.00200	0.100	0.0923	92	0.100	0.0952	95	3	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0903	90	0.100	0.0922	92	2	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.201	101	0.200	0.205	103	2	70-131	25	
o-Xylene	<0.00100	0.100	0.0978	98	0.100	0.100	100	2	71-133	25	

Matrix Spike Percent Recovery  $[D] = 100 \times (C-A)/B$   
Relative Percent Difference  $RPD = 200 \times |(C-F)/(C+F)|$

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.





# CHAIN OF CUSTODY RECORD

Page 1 of 1

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800  
:roool-c

LAB W.O #: 474604  
Field billable Hrs :

## \* Container Type Codes

VA Vial Amber	ES Encore Sampler
VC Vial Clear	TS TerraCore Sampler
VP Vial Pre-preserved	AC Air Canister
GA Glass Amber	TB Tedlar Bag
GC Glass Clear	ZB Zip Lock Bag
PA Plastic Amber	PC Plastic Clear
PC Plastic Clear	

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal  
40ml, 125 ml, 250 ml, 500 ml, 1L, Other

## \*\* Preservative Type Codes

A. None	E. HCL	I. Ice
B. HNO <sub>3</sub>	F. MeOH	J. MCAA
H <sub>2</sub> SO <sub>4</sub>	G. Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	K. ZnAc&NaOH
D. NaOH	H. NaHSO <sub>4</sub>	L. Asbc Acid&NaOH

## ^ Matrix Type Codes

GW Ground Water	S Soil/Sediment/Solid
WW Waste Water	W Wipe
DW Drinking Water	A Air
SW Surface Water	O Oil
OW Ocean/Sea Water	T Tissue
PL Product-Liquid	U Urine
PS Product-Solid	B Blood
SL Sludge	
Other	

## REMARKS

Company: Basin Environmental Service Technologies, LLC	Phone: (575)396-2378
Address: 3100 Plains Hwy.	Fax: (575)396-1429
City: Lovington	State: NM Zip: 88260
PM/Attn: Ben Arguijo	Email: bjarguijo@basinenv.com
Project ID: Red Byrd #1 SRS TNM Red Byrd #1	PO#: PAA-C. Bryant
Invoice To: Camille Bryant Plains All American	Quote #:

Sampler Signature:	Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A
--------------------	--

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code ^	Field Filtered	Integrity OK (Y/N)	Total # of containers	Example Volatiles by 8260	TPH	BTEX	Chloride	Hold Sample (CALL) on Highest TPH	Run PAH Only if
								# Cont	Lab Only:				
1	MW-6	11/19/13	10:30	GW			3		X				
2	MW-7	11/19/13	10:00	GW			3		X				
3	MW-11	11/19/13	11:30	GW			3		X				
4	MW-16	11/19/13	8:30	GW			3		X				
5	MW-17	11/19/13	9:00	GW			3		X				
6	MW-18	11/19/13	11:00	GW			3		X				
7	MW-19	11/19/13	9:30	GW			3		X				
8													
9													
0													

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C	Lab Use Only	YES NO N/A
CTLs TRRP DW NPDES LPST DryCln Other:	FL TX GA NC SC NJ PA OK LA AL NM Other:	1 2 3 4 CLP AFCEE QAPP NELAC DoD-ELAP Other:	ADaPT SEDD ERPIMS XLS Other:	Match Incomplete Absent Unclear	1 2 3 10.0	Non-Conformances found? Samples intact upon arrival? Received on Wet Ice? Labeled with proper preservatives? Received within holding time? Custody seals intact? VOCs rec'd w/o headspace? Proper containers used? pH verified-acceptable, excl VOCs? Received on time to meet HTs?	
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	Basin	11-20-13	8:35	Perla Rosendo	PM S	11-20-13	8:35
2				Camille Bryant	Xenoco	11-21-13	15:00
3							
4							

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330  
FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

C.O.C. Serial #

Execution of this document by client creates a legal and binding agreement between client and Xenco for analytical and testing services provided by Xenco to client under Xenco's standard terms and conditions unless previously agreed in writing. Terms of payment are Net 30 days, and all past due amounts shall accrue interest at 1.5% per month until paid in full. All laboratory analytical data and reports generated by Xenco remain the exclusive property of Xenco until invoices for such data are paid in full.

Revision Date: Nov 12, 2009



# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 11/20/2013 08:35:00 AM

Work Order #: 474604

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	10
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Sample instructions complete on Chain of Custody?	Yes
#9 Any missing/extra samples?	No
#10 Chain of Custody signed when relinquished/ received?	Yes
#11 Chain of Custody agrees with sample label(s)?	Yes
#12 Container label(s) legible and intact?	Yes
#13 Sample matrix/ properties agree with Chain of Custody?	Yes
#14 Samples in proper container/ bottle?	Yes
#15 Samples properly preserved?	Yes
#16 Sample container(s) intact?	Yes
#17 Sufficient sample amount for indicated test(s)?	Yes
#18 All samples received within hold time?	Yes
#19 Subcontract of sample(s)?	Yes
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	Yes
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	Yes
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	N/A

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:	PH Device/Lot#:
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Checklist completed by: Kelsey Brooks  
Kelsey Brooks

Date: 11/25/2013

Checklist reviewed by: Kelsey Brooks  
Kelsey Brooks

Date: 11/25/2013



**Appendix B**

**Release Notification &**

**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, LP	Contact:	Camille Reynolds
Address:	3705 E. Hwy 158, Midland, TX 79706	Telephone No.	505-441-0965
Facility Name:	Red Byrd # 1	Facility Type:	Steel Pipeline
Surface Owner:	Red Byrd	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
H	1	20S	36E					Lea

Latitude 32° 36' 09.8" N Longitude 103° 17' 58.5" W

### NATURE OF RELEASE

Type of Release:	Crude Oil	Volume of Release:	Unknown	Volume Recovered
Source of Release:	Steel Pipeline	Date and Hour of Occurrence	Date and Hour of Discovery	
Was Immediate Notice Given?	Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required <input type="checkbox"/>	If YES, To Whom?		
By Whom?		Date and Hour		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.		
If a Watercourse was Impacted, Describe Fully.*				
Describe Cause of Problem and Remedial Action Taken.*				
Describe Area Affected and Cleanup Action Taken.* <b>NOTE: Texas-New Mexico Pipeline was the owner/operator of the pipeline system at the time of the release, initial response information is unavailable.</b>				
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:		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Camille Reynolds		Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:	
E-mail Address: cjreynolds@paalp.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 3/21/2005	Phone: (505)441-0965		

\* Attach Additional Sheets If Necessary