

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

Form C-141  
 Revised October 10, 2003

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

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

## Release Notification and Corrective Action

### OPERATOR

Initial Report

Final Report

Name of Company	Plains Pipeline, L. P.	Contact	Daniel Bryant
Address	3112 W. US Hwy 82, Lovington, NM 88260	Telephone No.	(432) 557-5865
Facility Name	North Monument 6-Inch	Facility Type	6" Steel Pipeline

Surface Owner	B. Darnell	Mineral Owner	Lease No.
---------------	------------	---------------	-----------

*J Cooper POA*

### LOCATION OF RELEASE

*AP 1# 30-025, 05793*

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	32	19S	37E					Lea

Latitude 32°, 36', 36.8" Longitude 103°, 16', 47.7"

### NATURE OF RELEASE

Type of Release	Crude Oil	Volume of Release	5 barrels	Volume Recovered	0 barrels
Source of Release	6" Steel Pipeline	Date and Hour of Occurrence		Date and Hour of Discovery	
		12/05/2007 @ 1130		12/05/2007 @ 1200	
Was Immediate Notice Given?		If YES, To Whom?			
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Pat Richards			
By Whom?	Camille Reynolds	Date and Hour	12/05/2007 @ 1430		
Was a Watercourse Reached?		If YES, Volume Impacting the Watercourse.			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No				

If a Watercourse was Impacted, Describe Fully.\*

*RECEIVED  
HOBBS UCD  
12/05/2008*

Describe Cause of Problem and Remedial Action Taken.\* During purging activities discovered leak in the 6-inch pipeline resulting in a release of crude oil. The line was cut and capped to mitigate the release. The line is idle so information concerning volume and pressure is unavailable.

Describe Area Affected and Cleanup Action Taken.\* Pursuant to the approved NMOCD Plains Marketing, L. P., Preliminary Site Investigation Report, dated February 27, 2008, the crude oil release site was excavated, confirmation soil samples were collected from the floor & walls of the excavation, the impacted soil was transported to an NMOCD approved landfarm and the excavation was backfilled with soil purchased from a local landowner.

### SEE ATTACHED BASIN ENVIRONMENTAL SERVICE TECHNOLOGIES REMEDIATION SUMMARY AND CLOSURE REQUEST, FOR DETAILS OF REMEDIAL ACTIVITIES CONDUCTED.

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: <i>Dan Bryant</i>	OIL CONSERVATION DIVISION <i>S. Johnson</i>		
Printed Name: Daniel Bryant	Approved by District <i>S. Johnson</i> ENVIRONMENTAL ENGINEER		
Title: Remediation Coordinator	Approval Date: <u>12/4/08</u>	Expiration Date:	
E-mail Address: <u>dmbyrant@paalp.com</u>	Conditions of Approval: <i>—</i>		
Date: <u>10/24/2008</u>	Phone: <u>(432) 557-5865</u>	Attached <input type="checkbox"/> <i>TKP-1605</i>	

\* Attach Additional Sheets If Necessary

*F7RL0834463674*

# ***Basin Environmental Service Technologies, LLC***

2800 Plains Highway  
P. O. Box 301  
Lovington, New Mexico 88260  
[cjbryant@basin-consulting.com](mailto:cjbryant@basin-consulting.com)  
Office: (505) 396-2378      Fax: (505) 396-1429



## **REMEDIATION SUMMARY AND SITE CLOSURE REQUEST**

**PLAINS MARKETING, L.P. (231735)**  
**North Monument 6-Inch**  
**Lea County, New Mexico**  
**Plains SRS # 2007-345**

**UNIT M (SW/SW), Section 32, Township 19 South, Range 37 East**  
**Latitude 32°, 36', 36.8" North, Longitude 103°, 16', 47.7" West**  
**NMOCD Reference # 1RP-1685**

Prepared For:

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

**RECEIVED**

**HOBBS OCD**

Prepared By:  
Basin Environmental Service Technologies, LLC

**October 2008**

**DEC 04 2008**

A handwritten signature in black ink that reads "Camille Bryant". Below the signature, the name "Camille J. Bryant" is printed in a smaller, sans-serif font.

Project Manager

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## **FIGURES**

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- Figure 2 – Site Map
- Figure 3 – Sample Location Map

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- Table 1 – Concentrations of BTEX and TPH in Soil

## **APPENDICES**

- Appendix A - Laboratory Reports
- Appendix B - Digital Photos
- Appendix C - Release Notification and Corrective Action (Form C-141)

## **INTRODUCTION AND BACKGROUND INFORMATION**

Basin Environmental Service Technologies, LLC (Basin), on behalf of Plains Marketing, L.P. (Plains), has prepared this Remediation Summary and Site Closure Request for the release site known as North Monument 6-Inch. The site is located in Unit Letter M (SW  $\frac{1}{4}$  SW  $\frac{1}{4}$ ), Section 32, Township 19 South, Range 37 East, in Lea County, New Mexico. The property is owned by Barbara Darnell. The site latitude is 32°, 36', 36.8" North, and the longitude is 103°, 16', 47.7" West (Site Location and Site Map are provided as Figure 1 and Figure 2, respectively). The Release Notification and Corrective Action (NMOCD Form C-141) indicated approximately five (5) barrels of crude oil was released from the Plains pipeline and zero (0) barrels were recovered during the initial response activities. The Release Notification and Corrective Action is provided as Appendix C.

On December 5, 2007, Basin on behalf of Plains responded to a pipeline release located on the idled North Monument 6-Inch gathering pipeline (SRS# 2007-345). Plains operations personnel mitigated the crude oil release by cold cutting and capping the pipeline. The impacted soil excavated during initial emergency response activities was stockpiled on a 6-mil poly liner adjacent to the excavation. The initial visually stained area covered an area measuring approximately 10 feet long by 3 feet wide.

## **NMOCD SITE CLASSIFICATION**

A search of the New Mexico Office of the State Engineer (NMOSE) database indicates the average depth to groundwater is approximately 29 feet below ground surface (bgs) in the section. The depth to groundwater at the idled North Monument 6-Inch results in a score of >19 being assigned to the site based on the New Mexico Oil Conservation Division (NMOCD) depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

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

The NMOCD guidelines indicate the idle North Monument 6-Inch release site has a ranking score of >19. Based on this score, the soil remediation levels for a site with a ranking score of >19 points are as follows:

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

## SUMMARY OF RECENT FIELD ACTIVITIES

On December 5, 2007, Basin mobilized to the idled North Monument 6-Inch release site to begin excavation activities. Impacted soil excavated from the release point and flow path was stockpiled on 6-mil poly liner adjacent to the excavation. Due to safety concerns, excavation activities were halted to allow Targa Resources (Targa) to re-route a twelve (12) inch gas pipeline crossing the Plains North Monument 6-Inch pipeline. In December 2007, Targa successfully re-routed the gas pipeline and excavation activities continued. On December 26, 2007 through February 6, 2008, hydrocarbon impacted soil was excavated at the release site.

On February 6, 2008, fifteen (15) confirmation soil samples (N/W #1 16', N/W #2 8', N/W #3 16', N/W #4 7', S/W #1 15', S/W #2 12', S/W #3 16', S/W #4 7', E/W #1 16', E/W #2 8', W/W #1 16' and W/W #2 7') were collected from the excavation sidewalls ranging in depth from approximately 7 to 18 feet bgs. Soil samples (E FLR 18' and W FLR 18') were collected from the floor of the excavation at approximately 18 feet bgs. Based on elevated PID readings from the W FLR 18' soil sample, the area was trenched to an approximate depth of 21 feet bgs and a soil sample (W FLR 21') was collected and submitted to the laboratory. All soil samples were analyzed for concentrations of benzene, toluene, ethylbenzene and xylene (BTEX) using method EPA 8021b and total petroleum hydrocarbons (TPH) using method SW8015 modified. A summary of the analytical results are included in Table 1, Concentrations of BTEX and TPH in Soil. Laboratory results are included in Appendix A and soil samples locations are depicted on Figure 3, Sample Location Map.

The analytical results indicated benzene concentrations were either below the NMOCD regulatory standard or not detected above laboratory method detection limit (MDL) of <0.0100 mg/Kg for all of the soil samples collected. The analytical results indicated BTEX concentrations were either below the NMOCD regulatory standard or not detected above the MDL of <0.0100 mg/Kg for all of the soil samples collected.

The analytical results indicated TPH concentrations were below the MDL of <50 mg/Kg for all soil samples collected, with the exception of the soil samples W FLR 18' and W FLR 21'. The analytical results indicated soil samples W FLR 18' and W FLR 21' exhibited TPH concentrations of 454 mg/Kg and 115.6 mg/Kg, respectively. The TPH concentration exhibited in the W FLR 21' soil sample was slightly above the NMOCD standard at 115.6 mg/Kg, however, soil sample results are within the laboratory margin of error reporting parameters and were approved by the NMOCD Hobbs District Office.

Following excavation of the hydrocarbon impacted soil, a baseline stockpile soil sample (Stockpile) was collected and submitted for laboratory analysis. The analytical results indicated soil sample Stockpile exhibited a benzene concentration below the MDL of <0.1000 mg/Kg, BTEX concentration was below the NMOCD regulatory standard and the TPH concentration was 3,143 mg/Kg.

On March 11, 2008 the NMOCD Hobbs District Office approved the Preliminary Site Investigation Report and Remediation/Closure Plan, dated February 27, 2008, for the idled North Monument 6-Inch release site.

In March 2008, the west floor of the excavation was completed to a total depth of 21 feet bgs. Approximately 2,436 cubic yards (cy) of impacted soil was stockpiled adjacent to the excavation pending transportation to the C & C Landfarm. An additional 300 cy of segregated non-impacted overburden soil was stockpiled on-site to be utilized as topsoil material during backfilling activities. The final dimensions of the excavation were approximately 45 feet in width (north to south) and 80 feet in length (west to east) and 21 feet bgs in depth.

Based on the analytical results of the stockpiled soil, approximately 2,436 cy of impacted soil was transported to C & C Landfarm (NMOCD Permit NM-01-0012) and non-impacted backfill material was purchased from a local landowner. The excavation was backfilled with the locally purchased soil and the segregated stockpile soil and contoured to match the surrounding topography. In October 2008, the remediation site was seeded with vegetation suitable to the landowner.

## **SITE CLOSURE REQUEST**

Based on the analytical results of confirmation soil samples collected from the floor and sidewalls of the excavation, Basin recommends Plains provide the NMOCD Hobbs District Office a copy of this Remediation Summary and Site Closure Request and request the NMOCD grant site closure to the idled North Monument 6-Inch release site.

## **LIMITATIONS**

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

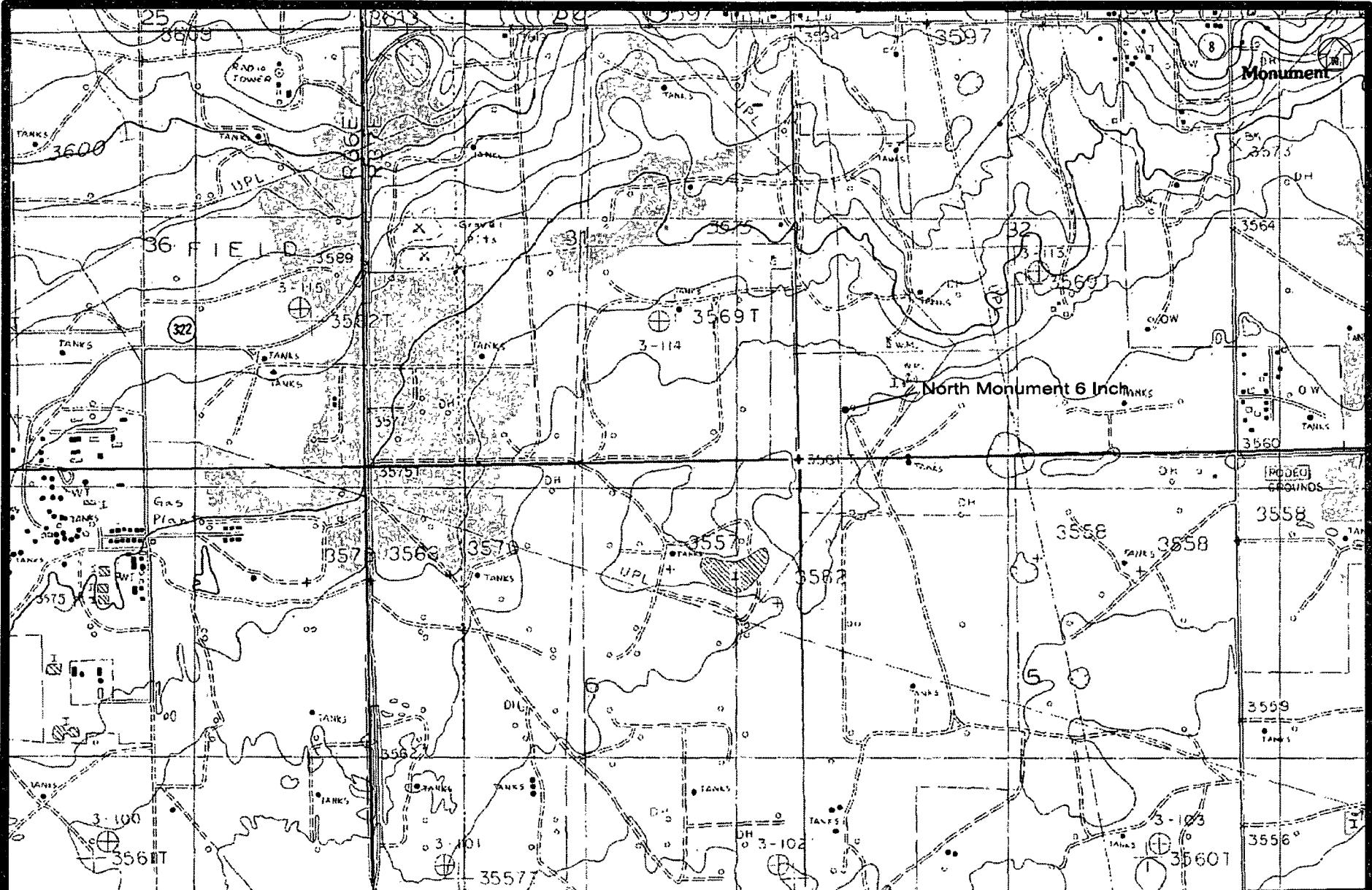
Basin Environmental Service Technologies, LLC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Service Technologies, LLC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Service Technologies, LLC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Service Technologies, LLC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

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

**DISTRIBUTION:**

- Copy 1: Larry Johnson  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division (District 1)  
1625 French Drive  
Hobbs, New Mexico 88240
- Copy 2: Jeff Dann  
Plains Marketing, L.P.  
333 Clay Street, Suite 1600  
Houston, Texas 77002  
[jpdann@paalp.com](mailto:jpdann@paalp.com)
- Copy 3: Daniel Bryant  
Plains Marketing, L.P.  
P. O. Box 3119  
Midland, Texas 79702  
[dmbyant@paalp.com](mailto:dmbyant@paalp.com)
- Copy 4: Camille Bryant  
Basin Environmental Consulting  
P.O. Box 381  
Lovington, New Mexico 88260  
[cjbryant@basin-consulting.com](mailto:cjbryant@basin-consulting.com)

## **Figures**



2000 1000 0 1000 2000

Distance in Feet

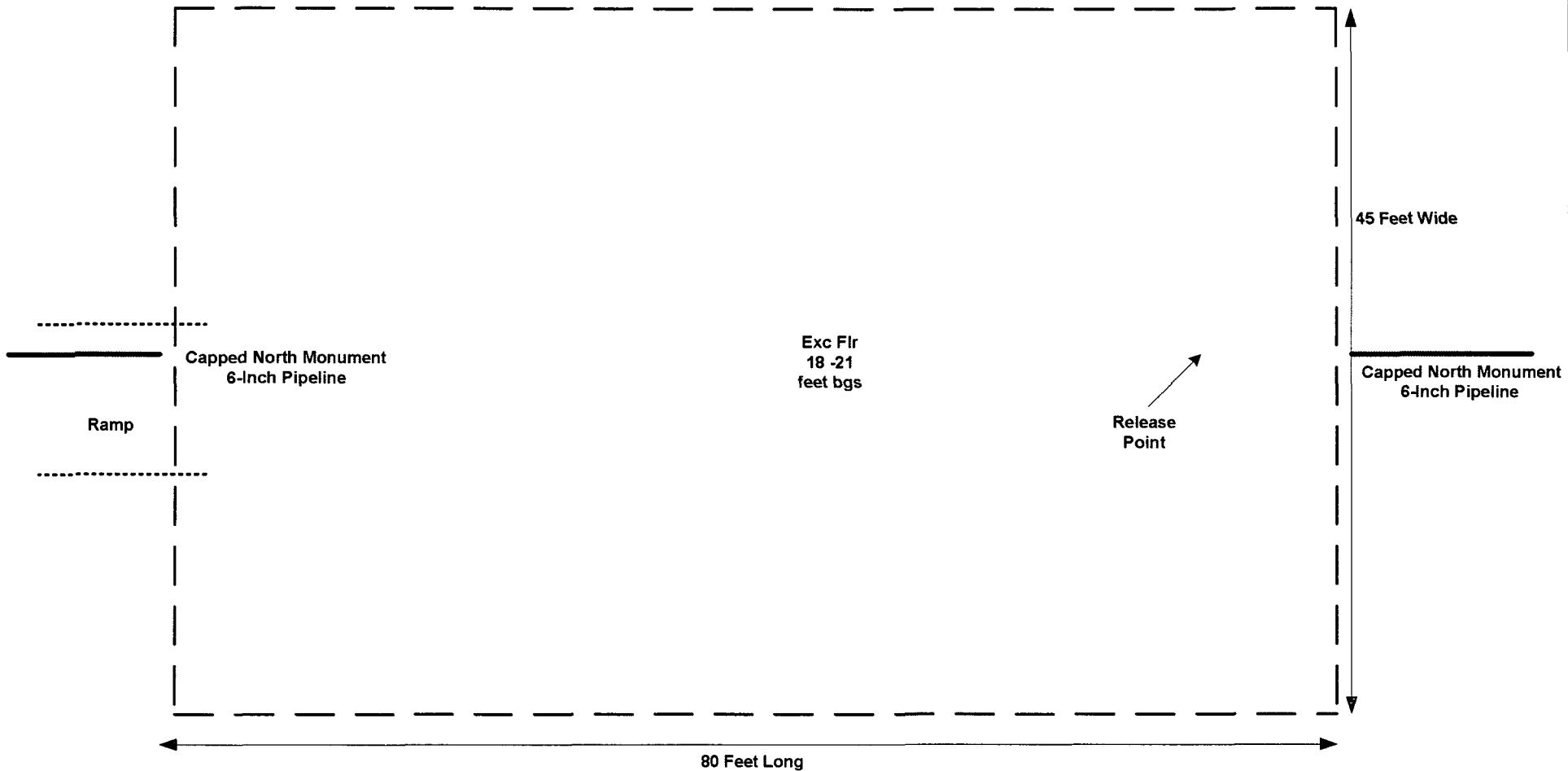
Figure 1  
Site Location Map  
North Monument 6 Inch  
Plains Marketing, L.P.  
Lea County, New Mexico  
SRS #2007-345  
1RP-1685

**Basin Environmental Services**

Prep By: CDS	Checked By: CJB
October 20, 2008	Scale 1"=2000'

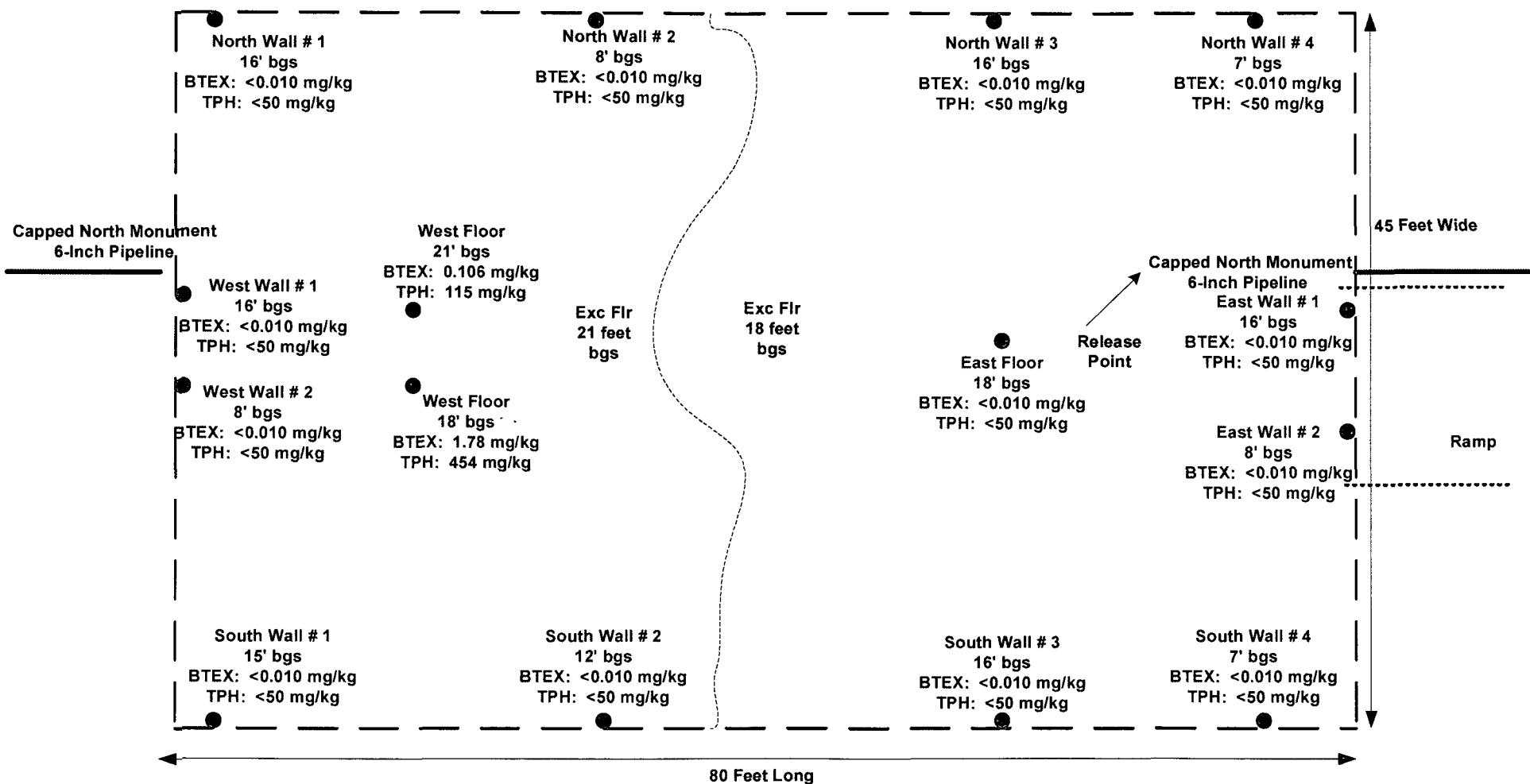
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Plains Marketing, L.P.  
North Monument 6-Inch  
SW/SW S32, T19S, R37E  
Lea County, New Mexico  
SRS: 2007-345  
NMOCD Ref No: 1RP-1685



TITLE  
**Figure 2**  
Excavation Site Map  
DRAWN BY  
Basin Environmental Services  
kad

Plains Marketing, L.P.  
 North Monument 6-Inch  
 SW/SW S32, T19S, R37E  
 Lea County, New Mexico  
 SRS: 2007-345  
 NMOCD Ref No: 1RP-1685



TITLE **Figure 3**  
**Sample Location Map**  
 DRAWN BY  
**Basin Environmental Services**  
**kad**

## **Tables**

**TABLE 1**  
**CONCENTRATIONS OF BTEX AND TPH IN SOIL**

**PLAINS MARKETING, L.P.  
NORTH MONUMENT 6-INCH  
LEA COUNTY, NEW MEXICO  
PLAINS SRS: 2007-345  
NMOCD REFERENCE NO: 1RP-1685**

## **Appendices**

## **Appendix A**

### **Laboratory Reports**

# TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 806•378•1296 806•794•1296 FAX 806•794•1298  
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3113 915•585•3443 FAX 915•585•4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313  
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260  
E-Mail: lab@traceanalysis.com

## Analytical and Quality Control Report

Ken Dutton  
Basin Environmental Service Tech LLC  
P.O. Box 301  
Lovington, NM, 88260

Report Date: February 15, 2008

Work Order: 8020836



Project Location: Lea County, NM  
Project Name: North Monument 6 inch  
Project Number: SRS 2007-345

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
150160	N/W #1 16'	soil	2008-02-06	14:00	2008-02-08
150161	N/W #2 8'	soil	2008-02-06	14:10	2008-02-08
150162	N/W #3 16'	soil	2008-02-06	14:20	2008-02-08
150163	N/W #4 7'	soil	2008-02-06	14:30	2008-02-08
150164	S/W #1 15'	soil	2008-02-06	14:40	2008-02-08
150165	S/W #2 12'	soil	2008-02-06	14:50	2008-02-08
150166	S/W #3 16'	soil	2008-02-06	15:00	2008-02-08
150167	S/W #4 7'	soil	2008-02-06	15:10	2008-02-08
150168	E/W #1 16'	soil	2008-02-06	15:20	2008-02-08
150169	E/W #2 8'	soil	2008-02-06	15:30	2008-02-08
150170	W/W #1 16'	soil	2008-02-06	15:40	2008-02-08
150171	W/W #2 7'	soil	2008-02-06	15:50	2008-02-08
150172	E FLR 18'	soil	2008-02-06	16:00	2008-02-08
150174	W FLR 18'	soil	2008-02-06	16:20	2008-02-08
150176	Stockpile	soil	2008-02-06	16:40	2008-02-08

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 23 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blair Leftwich

---

Dr. Blair Leftwich, Director

**Standard Flags**

**B** - The sample contains less than ten times the concentration found in the method blank.

## Analytical Report

Sample: 150160 - N/W #1 16'

Analysis: BTEX  
QC Batch: 45437  
Prep Batch: 39132

Analytical Method: S 8021B  
Date Analyzed: 2008-02-08  
Sample Preparation: 2008-02-08

Prep Method: S 5035  
Analyzed By: KB  
Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.875	mg/Kg	1	1.00	88	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.04	mg/Kg	1	1.00	104	59.2 - 162

Sample: 150160 - N/W #1 16'

Analysis: TPH DRO  
QC Batch: 45419  
Prep Batch: 39119

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-02-09  
Sample Preparation: 2008-02-08

Prep Method: N/A  
Analyzed By: TG  
Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		107	mg/Kg	1	100	107	33.3 - 164

Sample: 150160 - N/W #1 16'

Analysis: TPH GRO  
QC Batch: 45526  
Prep Batch: 39202

Analytical Method: S 8015B  
Date Analyzed: 2008-02-12  
Sample Preparation: 2008-02-12

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.948	mg/Kg	1	1.00	95	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.17	mg/Kg	1	1.00	117	78.5 - 139

**Sample: 150161 - N/W #2 8'**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 45437	Date Analyzed: 2008-02-08	Analyzed By: KB
Prep Batch: 39132	Sample Preparation: 2008-02-08	Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.858	mg/Kg	1	1.00	86	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.02	mg/Kg	1	1.00	102	59.2 - 162

**Sample: 150161 - N/W #2 8'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 45419	Date Analyzed: 2008-02-09	Analyzed By: TG
Prep Batch: 39119	Sample Preparation: 2008-02-08	Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		110	mg/Kg	1	100	110	33.3 - 164

**Sample: 150161 - N/W #2 8'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 45526	Date Analyzed: 2008-02-12	Analyzed By: MT
Prep Batch: 39202	Sample Preparation: 2008-02-12	Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.957	mg/Kg	1	1.00	96	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.19	mg/Kg	1	1.00	119	78.5 - 139

**Sample: 150162 - N/W #3 16'**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 45437	Date Analyzed: 2008-02-08	Analyzed By: KB
Prep Batch: 39132	Sample Preparation: 2008-02-08	Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.944	mg/Kg	1	1.00	94	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.09	mg/Kg	1	1.00	109	59.2 - 162

**Sample: 150162 - N/W #3 16'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 45419	Date Analyzed: 2008-02-09	Analyzed By: TG
Prep Batch: 39119	Sample Preparation: 2008-02-08	Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		91.6	mg/Kg	1	100	92	33.3 - 164

**Sample: 150162 - N/W #3 16'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 45526	Date Analyzed: 2008-02-12	Analyzed By: MT
Prep Batch: 39202	Sample Preparation: 2008-02-12	Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.09	mg/Kg	1	1.00	109	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.32	mg/Kg	1	1.00	132	78.5 - 139

**Sample: 150163 - N/W #4 7'**

Analysis: BTEX  
QC Batch: 45437  
Prep Batch: 39132

Analytical Method: S 8021B  
Date Analyzed: 2008-02-08  
Sample Preparation: 2008-02-08

Prep Method: S 5035  
Analyzed By: KB  
Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.935	mg/Kg	1	1.00	94	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	59.2 - 162

**Sample: 150163 - N/W #4 7'**

Analysis: TPH DRO  
QC Batch: 45419  
Prep Batch: 39119

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-02-09  
Sample Preparation: 2008-02-08

Prep Method: N/A  
Analyzed By: TG  
Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		104	mg/Kg	1	100	104	33.3 - 164

**Sample: 150163 - N/W #4 7'**

Analysis: TPH GRO  
QC Batch: 45526  
Prep Batch: 39202

Analytical Method: S 8015B  
Date Analyzed: 2008-02-12  
Sample Preparation: 2008-02-12

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.10	mg/Kg	1	1.00	110	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.25	mg/Kg	1	1.00	125	78.5 - 139

**Sample: 150164 - S/W #1 15'**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 45437	Date Analyzed: 2008-02-08	Analyzed By: KB
Prep Batch: 39132	Sample Preparation: 2008-02-08	Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.996	mg/Kg	1	1.00	100	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.18	mg/Kg	1	1.00	118	59.2 - 162

**Sample: 150164 - S/W #1 15'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 45419	Date Analyzed: 2008-02-09	Analyzed By: TG
Prep Batch: 39119	Sample Preparation: 2008-02-08	Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		93.1	mg/Kg	1	100	93	33.3 - 164

**Sample: 150164 - S/W #1 15'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 45526	Date Analyzed: 2008-02-12	Analyzed By: MT
Prep Batch: 39202	Sample Preparation: 2008-02-12	Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.982	mg/Kg	1	1.00	98	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.18	mg/Kg	1	1.00	118	78.5 - 139

**Sample: 150165 - S/W #2 12'**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 45437	Date Analyzed: 2008-02-08	Analyzed By: KB
Prep Batch: 39132	Sample Preparation: 2008-02-08	Prepared By: KB

Parameter	Flag	RL		Dilution	RL
		Result	Units		
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike	Percent Recovery	Recovery Limits
					Amount		
Trifluorotoluene (TFT)		0.951	mg/Kg	1	1.00	95	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	59.2 - 162

**Sample: 150165 - S/W #2 12'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 45419	Date Analyzed: 2008-02-09	Analyzed By: TG
Prep Batch: 39119	Sample Preparation: 2008-02-08	Prepared By: TG

Parameter	Flag	RL		Dilution	RL
		Result	Units		
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike	Percent Recovery	Recovery Limits
					Amount		
n-Triacontane		108	mg/Kg	1	100	108	33.3 - 164

**Sample: 150165 - S/W #2 12'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 45526	Date Analyzed: 2008-02-12	Analyzed By: MT
Prep Batch: 39202	Sample Preparation: 2008-02-12	Prepared By: MT

Parameter	Flag	RL		Dilution	RL
		Result	Units		
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike	Percent Recovery	Recovery Limits
					Amount		
Trifluorotoluene (TFT)		0.988	mg/Kg	1	1.00	99	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.19	mg/Kg	1	1.00	119	78.5 - 139

**Sample: 150166 - S/W #3 16'**

Analysis: BTEX  
QC Batch: 45437  
Prep Batch: 39132

Analytical Method: S 8021B  
Date Analyzed: 2008-02-08  
Sample Preparation: 2008-02-08

Prep Method: S 5035  
Analyzed By: KB  
Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.908	mg/Kg	1	1.00	91	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.08	mg/Kg	1	1.00	108	59.2 - 162

**Sample: 150166 - S/W #3 16'**

Analysis: TPH DRO  
QC Batch: 45419  
Prep Batch: 39119

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-02-09  
Sample Preparation: 2008-02-08

Prep Method: N/A  
Analyzed By: TG  
Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		106	mg/Kg	1	100	106	33.3 - 164

**Sample: 150166 - S/W #3 16'**

Analysis: TPH GRO  
QC Batch: 45526  
Prep Batch: 39202

Analytical Method: S 8015B  
Date Analyzed: 2008-02-12  
Sample Preparation: 2008-02-12

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.06	mg/Kg	1	1.00	106	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.24	mg/Kg	1	1.00	124	78.5 - 139

**Sample: 150167 - S/W #4 7'**

Analysis: BTEX  
QC Batch: 45437  
Prep Batch: 39132

Analytical Method: S 8021B  
Date Analyzed: 2008-02-08  
Sample Preparation: 2008-02-08

Prep Method: S 5035  
Analyzed By: KB  
Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.944	mg/Kg	1	1.00	94	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	59.2 - 162

**Sample: 150167 - S/W #4 7'**

Analysis: TPH DRO  
QC Batch: 45419  
Prep Batch: 39119

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-02-09  
Sample Preparation: 2008-02-08

Prep Method: N/A  
Analyzed By: TG  
Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		99.5	mg/Kg	1	100	100	33.3 - 164

**Sample: 150167 - S/W #4 7'**

Analysis: TPH GRO  
QC Batch: 45526  
Prep Batch: 39202

Analytical Method: S 8015B  
Date Analyzed: 2008-02-12  
Sample Preparation: 2008-02-12

Prep Method: S 5035  
Analyzed By: MT  
Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.04	mg/Kg	1	1.00	104	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.24	mg/Kg	1	1.00	124	78.5 - 139

**Sample: 150168 - E/W #1 16'**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 45437	Date Analyzed: 2008-02-08	Analyzed By: KB
Prep Batch: 39132	Sample Preparation: 2008-02-08	Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.853	mg/Kg	1	1.00	85	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	1	1.00	101	59.2 - 162

**Sample: 150168 - E/W #1 16'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 45419	Date Analyzed: 2008-02-09	Analyzed By: TG
Prep Batch: 39119	Sample Preparation: 2008-02-08	Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		106	mg/Kg	1	100	106	33.3 - 164

**Sample: 150168 - E/W #1 16'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 45526	Date Analyzed: 2008-02-12	Analyzed By: MT
Prep Batch: 39202	Sample Preparation: 2008-02-12	Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.861	mg/Kg	1	1.00	86	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.08	mg/Kg	1	1.00	108	78.5 - 139

**Sample: 150169 - E/W #2 8'**

Analysis: BTEX  
 QC Batch: 45437  
 Prep Batch: 39132

Analytical Method: S 8021B  
 Date Analyzed: 2008-02-08  
 Sample Preparation: 2008-02-08

Prep Method: S 5035  
 Analyzed By: KB  
 Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.852	mg/Kg	1	1.00	85	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.00	mg/Kg	1	1.00	100	59.2 - 162

**Sample: 150169 - E/W #2 8'**

Analysis: TPH DRO  
 QC Batch: 45419  
 Prep Batch: 39119

Analytical Method: Mod. 8015B  
 Date Analyzed: 2008-02-09  
 Sample Preparation: 2008-02-08

Prep Method: N/A  
 Analyzed By: TG  
 Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		145	mg/Kg	1	100	145	33.3 - 164

**Sample: 150169 - E/W #2 8'**

Analysis: TPH GRO  
 QC Batch: 45526  
 Prep Batch: 39202

Analytical Method: S 8015B  
 Date Analyzed: 2008-02-12  
 Sample Preparation: 2008-02-12

Prep Method: S 5035  
 Analyzed By: MT  
 Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	1	1.00	100	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.17	mg/Kg	1	1.00	117	78.5 - 139

**Sample: 150170 - W/W #1 16'**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 45437	Date Analyzed: 2008-02-08	Analyzed By: KB
Prep Batch: 39132	Sample Preparation: 2008-02-08	Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.910	mg/Kg	1	1.00	91	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.09	mg/Kg	1	1.00	109	59.2 - 162

**Sample: 150170 - W/W #1 16'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 45419	Date Analyzed: 2008-02-09	Analyzed By: TG
Prep Batch: 39119	Sample Preparation: 2008-02-08	Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		103	mg/Kg	1	100	103	33.3 - 164

**Sample: 150170 - W/W #1 16'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 45526	Date Analyzed: 2008-02-12	Analyzed By: MT
Prep Batch: 39202	Sample Preparation: 2008-02-12	Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.22	mg/Kg	1	1.00	122	78.5 - 139

**Sample: 150171 - W/W #2 7'**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 45437	Date Analyzed: 2008-02-08	Analyzed By: KB
Prep Batch: 39132	Sample Preparation: 2008-02-08	Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.870	mg/Kg	1	1.00	87	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	1	1.00	101	59.2 - 162

**Sample: 150171 - W/W #2 7'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 45419	Date Analyzed: 2008-02-09	Analyzed By: TG
Prep Batch: 39119	Sample Preparation: 2008-02-08	Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		90.7	mg/Kg	1	100	91	33.3 - 164

**Sample: 150171 - W/W #2 7'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 45526	Date Analyzed: 2008-02-12	Analyzed By: MT
Prep Batch: 39202	Sample Preparation: 2008-02-12	Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.29	mg/Kg	1	1.00	129	78.5 - 139

**Sample: 150172 - E FLR 18'**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 45437	Date Analyzed: 2008-02-08	Analyzed By: KB
Prep Batch: 39132	Sample Preparation: 2008-02-08	Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.870	mg/Kg	1	1.00	87	67.4 - 126
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1	1.00	105	59.2 - 162

**Sample: 150172 - E FLR 18'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 45419	Date Analyzed: 2008-02-09	Analyzed By: TG
Prep Batch: 39119	Sample Preparation: 2008-02-08	Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		94.2	mg/Kg	1	100	94	33.3 - 164

**Sample: 150172 - E FLR 18'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 45526	Date Analyzed: 2008-02-12	Analyzed By: MT
Prep Batch: 39202	Sample Preparation: 2008-02-12	Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.922	mg/Kg	1	1.00	92	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.16	mg/Kg	1	1.00	116	78.5 - 139

**Sample: 150174 - W FLR 18'**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 45437	Date Analyzed: 2008-02-08	Analyzed By: KB
Prep Batch: 39132	Sample Preparation: 2008-02-08	Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<b>0.0510</b>	mg/Kg	5	0.0100
Toluene		<0.0500	mg/Kg	5	0.0100
Ethylbenzene		<b>0.576</b>	mg/Kg	5	0.0100
Xylene		<b>1.16</b>	mg/Kg	5	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.818	mg/Kg	5	1.00	82	67.4 - 126
4-Bromofluorobenzene (4-BFB)	1	2.06	mg/Kg	5	1.00	206	59.2 - 162

**Sample: 150174 - W FLR 18'**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 45419	Date Analyzed: 2008-02-09	Analyzed By: TG
Prep Batch: 39119	Sample Preparation: 2008-02-08	Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		<b>201</b>	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triaccontane		102	mg/Kg	1	100	102	33.3 - 164

**Sample: 150174 - W FLR 18'**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 45526	Date Analyzed: 2008-02-12	Analyzed By: MT
Prep Batch: 39202	Sample Preparation: 2008-02-12	Prepared By: MT

Parameter	Flag	Result	Units	Dilution	RL
GRO		<b>253</b>	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	20	1.00	102	75.6 - 128
4-Bromofluorobenzene (4-BFB)	2	5.15	mg/Kg	20	1.00	515	78.5 - 139

<sup>1</sup>High surrogate recovery due to peak interference..

<sup>2</sup>High surrogate recovery due to peak interference.

**Sample: 150176 - Stockpile**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 45437	Date Analyzed: 2008-02-08	Analyzed By: KB
Prep Batch: 39132	Sample Preparation: 2008-02-08	Prepared By: KB

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	<sup>3</sup>	<0.100	mg/Kg	10	0.0100
Toluene		<0.100	mg/Kg	10	0.0100
Ethylbenzene		1.04	mg/Kg	10	0.0100
Xylene		4.74	mg/Kg	10	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.884	mg/Kg	10	1.00	88	67.4 - 126
4-Bromofluorobenzene (4-BFB)	<sup>4</sup>	1.57	mg/Kg	10	1.00	157	59.2 - 162

**Sample: 150176 - Stockpile**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 45419	Date Analyzed: 2008-02-09	Analyzed By: TG
Prep Batch: 39119	Sample Preparation: 2008-02-08	Prepared By: TG

Parameter	Flag	RL Result	Units	Dilution	RL		
DRO		<b>2440</b>	mg/Kg	1	50.0		
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	<sup>5</sup>	334	mg/Kg	1	100	334	33.3 - 164

**Sample: 150176 - Stockpile**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 45526	Date Analyzed: 2008-02-12	Analyzed By: MT
Prep Batch: 39202	Sample Preparation: 2008-02-12	Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL		
GRO		<b>703</b>	mg/Kg	20	1.00		
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.933	mg/Kg	20	1.00	93	75.6 - 128
4-Bromofluorobenzene (4-BFB)	<sup>6</sup>	10.1	mg/Kg	20	1.00	1010	78.5 - 139

<sup>3</sup>Sample ran at dilution due to hydrocarbons with a retention time greater than xylene.

<sup>4</sup>High surrogate recovery due to peak interference.

<sup>5</sup>High surrogate recovery due to peak interference.

<sup>6</sup>High surrogate recovery due to peak interference.

Method Blank (1) QC Batch: 45419

QC Batch: 45419  
Prep Batch: 39119

Date Analyzed: 2008-02-09  
QC Preparation: 2008-02-08

Analyzed By: TG  
Prepared By: TG

Parameter	Flag	MDL	Result	Units	RL
DBO		<22.3		$\text{mg}/\text{K}^\sigma$	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		99.7	mg/Kg	1	100	100	33.3 - 164

Method Blank (1) QC Batch: 45437

QC Batch: 45437  
Prep Batch: 39132

Date Analyzed: 2008-02-08  
QC Preparation: 2008-02-08

Analyzed By: KB  
Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00333	mg/Kg	0.01
Toluene		<0.00372	mg/Kg	0.01
Ethylbenzene		<0.00206	mg/Kg	0.01
Xylene		0.00660	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	70.4 - 111
4-Bromofluorobenzene (4-BFB)	?	1.14	mg/Kg	1	1.00	114	42.4 - 99.7

**Method Blank (1)** QC Batch: 45526

QC Batch: 45526  
Prep Batch: 39202

Date Analyzed: 2008-02-12  
QC Preparation: 2008-02-12

Analyzed By: MT  
Prepared By: MT

Parameter	Flag	MDL Result	Units	RL
GRO		<0.459	$\text{mg}/\text{K}\sigma$	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.932	mg/Kg	1	1.00	93	85 - 116
4-Bromofluorobenzene (4-BFB)		0.820	mg/Kg	1	1.00	82	45.2 - 98.8

### **Laboratory Control Spike (LCS-1)**

QC Batch: 45419  
Prep Batch: 39119

Date Analyzed: 2008-02-09  
QC Preparation: 2008-02-08

Analyzed By: TG  
Prepared By: TG

<sup>7</sup>BFB surrogate recovery outside control limits but within method limits. •

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
DRO	250	mg/Kg	1	250	<22.3	100	54.3 - 149

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	Result	Units							
DRO	293	mg/Kg	1	250	<22.3	117	54.3 - 149	16	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	103	122	mg/Kg	1	100	103	122	33.3 - 164

### Laboratory Control Spike (LCS-1)

QC Batch: 45437  
Prep Batch: 39132

Date Analyzed: 2008-02-08  
QC Preparation: 2008-02-08

Analyzed By: KB  
Prepared By: KB

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Benzene	0.982	mg/Kg	1	1.00	<0.00333	98	77.2 - 116
Toluene	0.989	mg/Kg	1	1.00	<0.00372	99	77.4 - 116
Ethylbenzene	0.985	mg/Kg	1	1.00	<0.00206	98	77.4 - 112
Xylene	2.95	mg/Kg	1	3.00	0.0066	98	78.8 - 111

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD		Spike		Matrix		Rec.		RPD	
	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit	
Benzene	0.990	mg/Kg	1	1.00	<0.00333	99	77.2 - 116	1	20	
Toluene	1.00	mg/Kg	1	1.00	<0.00372	100	77.4 - 116	1	20	
Ethylbenzene	1.00	mg/Kg	1	1.00	<0.00206	100	77.4 - 112	2	20	
Xylene	3.00	mg/Kg	1	3.00	0.0066	100	78.8 - 111	2	20	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.933	0.959	mg/Kg	1	1.00	93	96	74.2 - 114
4-Bromofluorobenzene (4-BFB)	0.976	0.980	mg/Kg	1	1.00	98	98	75.7 - 114

### Laboratory Control Spike (LCS-1)

QC Batch: 45526  
Prep Batch: 39202

Date Analyzed: 2008-02-12  
QC Preparation: 2008-02-12

Analyzed By: MT  
Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
GRO	8.68	mg/Kg	1	10.0	<0.459	87	76.4 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.33	mg/Kg	1	10.0	<0.459	93	76.4 - 115	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.912	0.936	mg/Kg	1	1.00	91	94	80.3 - 113
4-Bromofluorobenzene (4-BFB)	0.997	1.04	mg/Kg	1	1.00	100	104	70.7 - 110

**Matrix Spike (MS-1) Spiked Sample: 150032**

QC Batch: 45419 Date Analyzed: 2008-02-09 Analyzed By: TG  
Prep Batch: 39119 QC Preparation: 2008-02-08 Prepared By: TG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
DRO	<sup>8</sup> 1390	mg/Kg	1	250	705	274	35.1 - 161

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
DRO	<sup>9</sup> 1050	mg/Kg	1	250	705	138	35.1 - 161	28	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triaccontane	<sup>10</sup> <sup>11</sup> 230	168	mg/Kg	1	100	230	168	33.3 - 164

**Matrix Spike (MS-1) Spiked Sample: 150160**

QC Batch: 45437 Date Analyzed: 2008-02-08 Analyzed By: KB  
Prep Batch: 39132 QC Preparation: 2008-02-08 Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene	0.825	mg/Kg	1	1.00	<0.00333	82	10 - 159
Toluene	0.888	mg/Kg	1	1.00	<0.00372	89	10 - 170
Ethylbenzene	0.979	mg/Kg	1	1.00	<0.00206	98	10 - 181
Xylene	3.00	mg/Kg	1	3.00	<0.00259	100	10 - 184

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.872	mg/Kg	1	1.00	<0.00333	87	10 - 159	6	20
Toluene	0.930	mg/Kg	1	1.00	<0.00372	93	10 - 170	5	20

*continued ...*

<sup>8</sup> Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>9</sup> MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

<sup>10</sup> High surrogate recovery due to peak interference.

<sup>11</sup> High surrogate recovery due to peak interference.

*matrix spikes continued . . .*

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Limit	RPD	RPD Limit
Ethylbenzene	1.02	mg/Kg	1	1.00	<0.00206	102	10 - 181	4	20
Xylene	3.14	mg/Kg	1	3.00	<0.00259	105	10 - 184	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.853	0.894	mg/Kg	1	1	85	89	66.1 - 117	
4-Bromofluorobenzene (4-BFB)	1.08	1.12	mg/Kg	1	1	108	112	63.8 - 146	

#### Matrix Spike (MS-1) Spiked Sample: 150160

QC Batch: 45526 Date Analyzed: 2008-02-12 Analyzed By: MT  
Prep Batch: 39202 QC Preparation: 2008-02-12 Prepared By: MT

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Limit
GRO	9.36	mg/Kg	1	10.0	<0.459	94	40.1 - 154

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Limit	RPD	RPD Limit
GRO	9.41	mg/Kg	1	10.0	<0.459	94	40.1 - 154	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.948	0.863	mg/Kg	1	1	95	86	16.6 - 155	
4-Bromofluorobenzene (4-BFB)	1.33	1.26	mg/Kg	1	1	133	126	40.1 - 176	

#### Standard (ICV-1)

QC Batch: 45419 Date Analyzed: 2008-02-09 Analyzed By: TG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	237	95	85 - 115	2008-02-09

#### Standard (CCV-1)

QC Batch: 45419 Date Analyzed: 2008-02-09 Analyzed By: TG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	241	96	85 - 115	2008-02-09

### Standard (CCV-2)

QC Batch: 45419                          Date Analyzed: 2008-02-09                          Analyzed By: TG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	239	96	85 - 115	2008-02-09

### Standard (CCV-3)

QC Batch: 45419                          Date Analyzed: 2008-02-09                          Analyzed By: TG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	276	110	85 - 115	2008-02-09

### Standard (ICV-1)

QC Batch: 45437                          Date Analyzed: 2008-02-08                          Analyzed By: KB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0997	100	85 - 115	2008-02-08
Toluene		mg/Kg	0.100	0.0998	100	85 - 115	2008-02-08
Ethylbenzene		mg/Kg	0.100	0.0990	99	85 - 115	2008-02-08
Xylene		mg/Kg	0.300	0.297	99	85 - 115	2008-02-08

### Standard (CCV-1)

QC Batch: 45437                          Date Analyzed: 2008-02-08                          Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.100	100	85 - 115	2008-02-08
Toluene		mg/Kg	0.100	0.101	101	85 - 115	2008-02-08
Ethylbenzene		mg/Kg	0.100	0.101	101	85 - 115	2008-02-08
Xylene		mg/Kg	0.300	0.302	101	85 - 115	2008-02-08

### Standard (ICV-1)

QC Batch: 45526                          Date Analyzed: 2008-02-12                          Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.918	92	85 - 115	2008-02-12

**Standard (CCV-1)**

QC Batch: 45526

Date Analyzed: 2008-02-12

Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.918	92	85 - 115	2008-02-12

# **TRACE ANALYSIS, INC.**

8020836

## **CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

**5002 Basin Street, Suite A1  
Midland, Texas 79703**

**Phone:** 432-689-6301  
**Fax:** 432-689-6313

Project Manager: Ken Dutton PAGE 01 OF 02  
Company Name: Basin Environmental Service Technologies, LLC  
Company Address: P. O. Box 301  
City/State/Zip: Lovington, NM 88260  
Telephone No: (505) 441-2124 Fax No: (505) 396-1429  
Sampler Signature:  e-mail: kdutton@basinenv.com

Project Name: **NORTH MONUMENT 6 INCH**  
Project #: **SRS: 2007-345**  
Project Loc: **Lea County, NM**  
PO #: **INVOICE TO PLAINS MARKETING**  
Report Format:  Standard  TRRP  NPDES

LAB # (Lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled
150160	N/W # 1 16'			06-Feb-07
161	N/W # 2 8'			06-Feb-07
162	N/W # 3 16'			06-Feb-07
163	N/W # 4 7'			06-Feb-07
164	S/W # 1 15'			06-Feb-07
165	S/W # 2 12'			06-Feb-07
166	S/W # 3 16'			06-Feb-07
167	S/W # 4 7'			06-Feb-07
168	E/W # 1 16'			06-Feb-07
169	E/W # 2 8'			06-Feb-07

Special Instructions: EMAIL RESULTS: kdutton@basinenv.com & cjreynolds@paalp.com				
Relinquished by: <i>Ken Dutton</i>	Date <i>01/08/03</i>	Time <i>9:30</i>	Received by: <i>Lynn Blackwood</i>	<i>01</i>
Relinquished by: <i>Lynn Blackwood</i>	Date <i>01/08/03</i>	Time <i>1:10</i>	Received by: <i>Dick Crowley</i>	<i>2-1</i>

# TRACE ANALYSIS, INC.

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

5002 Basin Street, Suite A1  
Midland, Texas 79703

Phone: 432-689-6301  
Fax: 432-689-6313

Project Manager: Ken Dutton PAGE 02 OF 02

Project Name: NORTH MONUMENT 6 INCH

Company Name: Basin Environmental Service Technologies, LLC

Project #: SRS: 2007-345

Company Address: P. O. Box 301

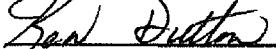
Project Loc: Lea County, NM

City/State/Zip: Lovington, NM 88260

PO #: INVOICE TO PLAINS MARKETING

Telephone No: (505) 441-2124 Fax No: (505) 396-1429

Report Format:  Standard  TRRP  NPDES

Sampler Signature:  e-mail: kdutton@basinenv.com

(Lab use only)	
ORDER #:	

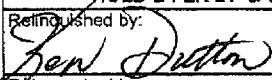
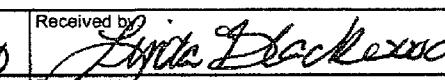
Analyze For:		TOTAL:											
		TCLP:				DW - Drinking Water				SL - Sludge			
		NP = Non-Portable		Specify Oth		Hg		NaOH		S2O3		Soil/Sol	
BTEX 8021B/5030 or BT/TEX 8260		TPH	418.1	8015M	8015B								
RCI		TPH	TX 1005	TX 1006									
N.O.R.M.		Cations (Ca, Mg, Na, K)											
Chlorides EPA 300.0		Anions (Cl, SO4, Alkalinity)											
RUSH TAT (Pre-Schedule) 24, 48, 72 hr		SAR / ESP / CEC											
Standard TAT		Metals: As Ag Ba Cd Cr Pb Hg Se											
X		Volatiles											
X		Semivolatiles											
X		BTEX 8021B/5030 or BT/TEX 8260											
X		RCI											
X		N.O.R.M.											
X		Chlorides EPA 300.0											
X		RUSH TAT (Pre-Schedule) 24, 48, 72 hr											
X		Standard TAT											

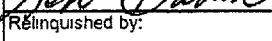
Special Instructions:

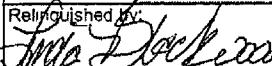
EMAIL RESULTS: kdutton@basinenv.com & cjreynolds@paalp.com  
HOLD E FLR 21' & W FLR 21' FOR POSSIBLE ANALYSIS

Laboratory Comments:

Sample Containers intact? Y N  
VOCs Free of Headspace? Y N  
Labels on container(s)? Y N  
Custody seals on container(s)? Y N  
Custody seals on cooler(s)? Y N  
Sample Hand Delivered by Sampler/Client Rep.? Y N  
by Courier? UPS DHL FedEx Lone Star  
Temperature Upon Receipt: 2 °C

Relinquished by:  Date: 02/08/08 Time: 9:30 Received by:  Date: 02/08/08 Time: 9:30

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

Relinquished by:  Date: 02/08/08 Time: 1:00 Received by:  Date: 02/08/08 Time: 1:00

# TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 8808 Camp Bowie Blvd. West, Suite 180	Lubbock, Texas 79424 El Paso, Texas 79922 Midland, Texas 79703 Ft. Worth, Texas 76116	800•378•1296 888•588•3443 432•689•6301 E-Mail: lab@traceanalysis.com	806•794•1296 915•585•3443 432•689•6301 817•201•5260	FAX 806•794•1298 FAX 915•585•4944 FAX 432•689•6313 FAX 817•560•4336
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## Analytical and Quality Control Report

Ken Dutton  
Basin Environmental Service Tech LLC  
P.O. Box 301  
Lovington, NM, 88260

Report Date: February 18, 2008

Work Order: 8020836



Project Location: Lea County, NM  
Project Name: North Monument 6 inch  
Project Number: SRS 2007-345

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
150175	W FLR 21'	soil	2008-02-06	16:30	2008-02-08

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 8 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

### Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

## Case Narrative

Samples for project North Monument 6 inch were received by TraceAnalysis, Inc. on 2008-02-08 and assigned to work order 8020836. Samples for work order 8020836 were received intact at a temperature of 2.0.deg C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
BTEX	S 8021B
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8020836 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: February 18, 2008  
SRS 2007-345

Work Order: 8020836  
North Monument 6 inch

Page Number: 3 of 8  
Lea County, NM

## Analytical Report

Sample: 150175 - W FLR 21'

Analysis: BTEX  
QC Batch: 45633  
Prep Batch: 39289

Analytical Method: S 8021B  
Date Analyzed: 2008-02-15  
Sample Preparation: 2008-02-15

Prep Method: S 5035  
Analyzed By: KB  
Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		0.0477	mg/Kg	1	0.0100
Xylene		0.0595	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	1	0.654	mg/Kg	1	1.00	65	67.4 - 126
4-Bromofluorobenzene (4-BFB)	2	0.913	mg/Kg	1	1.00	91	59.2 - 162

Sample: 150175 - W FLR 21'

Analysis: TPH DRO  
QC Batch: 45653  
Prep Batch: 39303

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-02-16  
Sample Preparation: 2008-02-15

Prep Method: N/A  
Analyzed By: TG  
Prepared By: TG

Parameter	Flag	Result	Units	Dilution	RL
DRO		93.5	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triaccontane		114	mg/Kg	1	100	114	33.3 - 164

Sample: 150175 - W FLR 21'

Analysis: TPH GRO  
QC Batch: 45635  
Prep Batch: 39289

Analytical Method: S 8015B  
Date Analyzed: 2008-02-15  
Sample Preparation: 2008-02-15

Prep Method: S 5035  
Analyzed By: KB  
Prepared By: KB

Parameter	Flag	Result	Units	Dilution	RL
GRO		22.1	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	1	0.785	mg/Kg	1	1.00	78	75.6 - 128
4-Bromofluorobenzene (4-BFB)	2	1.66	mg/Kg	1	1.00	166	78.5 - 139

<sup>1</sup>Surrogate out due to peak interference.

<sup>2</sup>High surrogate recovery due to peak interference.

Report Date: February 18, 2008  
SRS 2007-345

Work Order: 8020836  
North Monument 6 inch

Page Number: 4 of 8  
Lea County, NM

Method Blank (1) QC Batch: 45633

QC Batch: 45633  
Prep Batch: 39289

Date Analyzed: 2008-02-15  
QC Preparation: 2008-02-15

Analyzed By: KB  
Prepared By: KB

Parameter	Flag	MDL	Result	Units	RL
Benzene		<0.00333		mg/Kg	0.01
Toluene		<0.00372		mg/Kg	0.01
Ethylbenzene		<0.00206		mg/Kg	0.01
Xylene		<0.00259		mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike	Percent	Recovery	Limits
Trifluorotoluene (TFT)		0.825	mg/Kg	1	1.00	82	70.4 - 111	
4-Bromofluorobenzene (4-BFB)		0.625	mg/Kg	1	1.00	62	42.4 - 99.7	

Method Blank (1) QC Batch: 45635

QC Batch: 45635  
Prep Batch: 39289

Date Analyzed: 2008-02-15  
QC Preparation: 2008-02-15

Analyzed By: KB  
Prepared By: KB

Parameter	Flag	MDL	Result	Units	RL
GRO		<0.459		mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike	Percent	Recovery	Limits
Trifluorotoluene (TFT)		0.934	mg/Kg	1	1.00	93	85 - 116	
4-Bromofluorobenzene (4-BFB)		0.707	mg/Kg	1	1.00	71	45.2 - 98.8	

Method Blank (1) QC Batch: 45653

QC Batch: 45653  
Prep Batch: 39303

Date Analyzed: 2008-02-16  
QC Preparation: 2008-02-15

Analyzed By: TG  
Prepared By: TG

Parameter	Flag	MDL	Result	Units	RL
DRO		<22.3		mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike	Percent	Recovery	Limits
n-Triacontane		98.5	mg/Kg	1	100	98	33.3 - 164	

Laboratory Control Spike (LCS-1)

QC Batch: 45633  
Prep Batch: 39289

Date Analyzed: 2008-02-15  
QC Preparation: 2008-02-15

Analyzed By: KB  
Prepared By: KB

Report Date: February 18, 2008  
SRS 2007-345

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene	0.922	mg/Kg	1	1.00	<0.00333	92	77.2 - 116
Toluene	0.906	mg/Kg	1	1.00	<0.00372	91	77.4 - 116
Ethylbenzene	0.864	mg/Kg	1	1.00	<0.00206	86	77.4 - 112
Xylene	2.63	mg/Kg	1	3.00	<0.00259	88	78.8 - 111

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD RPD	RPD Limit
Benzene	0.982	mg/Kg	1	1.00	<0.00333	98	77.2 - 116	6	20
Toluene	0.959	mg/Kg	1	1.00	<0.00372	96	77.4 - 116	6	20
Ethylbenzene	0.919	mg/Kg	1	1.00	<0.00206	92	77.4 - 112	6	20
Xylene	2.79	mg/Kg	1	3.00	<0.00259	93	78.8 - 111	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.845	0.897	mg/Kg	1	1.00	84	90	74.2 - 114
4-Bromofluorobenzene (4-BFB)	0.866	0.920	mg/Kg	1	1.00	87	92	75.7 - 114

### Laboratory Control Spike (LCS-1)

QC Batch: 45635  
Prep Batch: 39289

Date Analyzed: 2008-02-15  
QC Preparation: 2008-02-15

Analyzed By: KB  
Prepared By: KB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.06	mg/Kg	1	10.0	<0.459	91	76.4 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil:	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	8.58	mg/Kg	1	10.0	<0.459	86	76.4 - 115	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Surrogate								
Trifluorotoluene (TFT)	1.12	0.869	mg/Kg	1	1.00	.112	.87	80.3 - 113
4-Bromofluorobenzene (4-BFB)	0.950	0.888	mg/Kg	1	1.00	.95	.89	70.7 - 110

### Laboratory Control Spike (LCS-1)

QC Batch: 45653  
Prep Batch: 39303

Date Analyzed: 2008-02-16  
QC Preparation: 2008-02-15

Analyzed By: TG  
Prepared By: TG

Páram	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	251	mg/Kg	1	250	<22.3	100	54.3 - 149

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Work Order: 8020836  
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Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	249	mg/Kg	1	250	<22.3	100	54.3 - 149	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	94.1	94.3	mg/Kg	1	100	94	94	33.3 - 164

Matrix Spike (MS-1) Spiked Sample: 150545

QC Batch: 45633 Date Analyzed: 2008-02-15  
Prep Batch: 39289 QC Preparation: 2008-02-15  
Analyzed By: KB  
Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.835	mg/Kg	1	1.00	<0.00333	84	10 - 159
Toluene	0.867	mg/Kg	1	1.00	<0.00372	87	10 - 170
Ethylbenzene	0.959	mg/Kg	1	1.00	<0.00206	96	10 - 181
Xylene	2.89	mg/Kg	1	3.00	<0.00259	96	10 - 184

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.811	mg/Kg	1	1.00	<0.00333	81	10 - 159	3	20
Toluene	0.843	mg/Kg	1	1.00	<0.00372	84	10 - 170	3	20
Ethylbenzene	0.928	mg/Kg	1	1.00	<0.00206	93	10 - 181	3	20
Xylene	2.79	mg/Kg	1	3.00	<0.00259	93	10 - 184	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.862	0.795	mg/Kg	1	1	86	80	66.1 - 117
4-Bromofluorobenzene (4-BFB)	1.02	0.975	mg/Kg	1	1	102	98	63.8 - 146

Matrix Spike (MS-1) Spiked Sample: 150537

QC Batch: 45635 Date Analyzed: 2008-02-15  
Prep Batch: 39289 QC Preparation: 2008-02-15  
Analyzed By: KB  
Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.93	mg/Kg	1	10.0	<0.459	99	40.1 - 154

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.01	mg/Kg	1	10.0	<0.459	90	40.1 - 154	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.864	0.849	mg/Kg	1	1	86	85	16.6 - 155
4-Bromofluorobenzene (4-BFB)	1.26	1.15	mg/Kg	1	1	126	115	40.1 - 176

#### Matrix Spike (MS-1) Spiked Sample: 150175

QC Batch: 45653      Date Analyzed: 2008-02-16  
 Prep Batch: 39303      QC Preparation: 2008-02-15      Analyzed By: TG  
 Prepared By: TG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
DRO	364	mg/Kg	1	250	93.5	108	35.1 - 161

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
DRO	370	mg/Kg	1	250	93.5	111	35.1 - 161	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	103	108	mg/Kg	1	100	103	108	33.3 - 164

#### Standard (ICV-1)

QC Batch: 45633      Date Analyzed: 2008-02-15      Analyzed By: KB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0973	97	85 - 115	2008-02-15
Toluene		mg/Kg	0.100	0.0949	95	85 - 115	2008-02-15
Ethylbenzene		mg/Kg	0.100	0.0913	91	85 - 115	2008-02-15
Xylene		mg/Kg	0.300	0.277	92	85 - 115	2008-02-15

#### Standard (CCV-1)

QC Batch: 45633      Date Analyzed: 2008-02-15      Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0912	91	85 - 115	2008-02-15
Toluene		mg/Kg	0.100	0.0888	89	85 - 115	2008-02-15
Ethylbenzene		mg/Kg	0.100	0.0879	88	85 - 115	2008-02-15
Xylene		mg/Kg	0.300	0.262	87	85 - 115	2008-02-15

#### Standard (ICV-1)

QC Batch: 45635      Date Analyzed: 2008-02-15      Analyzed By: KB

Report Date: February 18, 2008  
SRS 2007-345

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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.868	87	85 - 115	2008-02-15

**Standard (CCV-1)**

QC Batch: 45635      Date Analyzed: 2008-02-15      Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.873	87	85 - 115	2008-02-15

**Standard (ICV-1)**

QC Batch: 45653      Date Analyzed: 2008-02-16      Analyzed By: TG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	247	99	85 - 115	2008-02-16

**Standard (CCV-1)**

QC Batch: 45653      Date Analyzed: 2008-02-16      Analyzed By: TG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	244	98	85 - 115	2008-02-16







# TRACE ANALYSIS, INC.

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

5002 Basin Street, Suite A1  
Midland, Texas 79703

Phone: 432-689-6301  
Fax: 432-689-6313

Project Manager: Ken Dutton

PAGE 02 OF 02

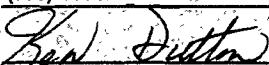
Company Name

Basin Environmental Service Technologies, LLC

Company Address: P. O. Box 301

City/State/Zip: Lovington, NM 88260

Telephone No: (505) 441-2124

Sampler Signature: 

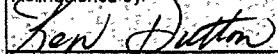
(lab use only)	
ORDER #:	

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Screened	Total # of Containers	Preservation & # of Containers						Matrix	Analyze For:	
								Ice	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> SO <sub>4</sub>	None		
150170	W/W # 1 16'			06-Feb-07	1540		1	X							SOIL	TCLP TOTAL
171	W/W # 2 7'			06-Feb-07	1550		1	X							SOIL	TCLP TOTAL
172	E FLR 18'			06-Feb-07	1600		1	X							SOIL	TCLP TOTAL
173	E FLR # 2 21'			06-Feb-07	1610		1	X							SOIL	TCLP TOTAL
174	W FLR 18'			06-Feb-07	1620		1	X							SOIL	TCLP TOTAL
175	W FLR 21'			06-Feb-07	1630		1	X							SOIL	TCLP TOTAL
176	STOCKPILE			06-Feb-07	1640		1	X							SOIL	TCLP TOTAL

### Special Instructions:

EMAIL RESULTS: kdutton@basinenv.com & cjreynolds@paalp.com  
HOLD E FLR 21' & W FLR 21' FOR POSSIBLE ANALYSIS

Relinquished by:

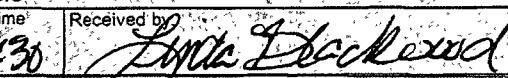


Date

02/08/08 9:30

Time

Received by:



Date

02/08/08 9:30

Time

Relinquished by:



Date

02/08/08 1:00

Time

Received by:



Date

02/08/08 1:10

Time

### Laboratory Comments:

Sample Containers Intact?

N

VOCs Free of Headspace?

N

Labels on container(s)?

N

Custody seals on container(s)?

N

Custody seals on cooler(s)?

N

Sample Hand Delivered?

N

by Sampler/Client Rep.?

N

by Courier?

N

UPS DHL FedEx Lone Star

Temperature Upon Receipt:

2

°C

218°F BP

BP

## **Appendix B**

### **Digital Photographs**



North Monument 6-Inch excavation prior to backfilling



North Monument 6-Inch backfilled and seeded

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

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

**State of New Mexico**  
**Energy Minerals and Natural Resources**

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

Form C.  
 Revised October 10,

Submit 2 Copies to approp  
 District Office in accord  
 with Rule 116 on  
 side of

### Release Notification and Corrective Action

#### OPERATOR

Initial Report     Final R

Name of Company Plains Pipeline, LP	Contact Camille Reynolds
Address 3112 West US Hwy 82, Lovington, NM 88260	Telephone No. 505-441-0965
Facility Name North Monument 6 Inch	Facility Type 6"Steel Pipeline

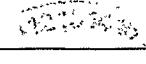
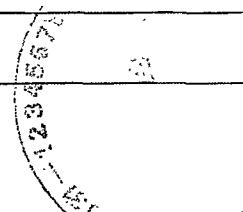
Surface Owner B. Darnell	Mineral Owner	Lease No.
--------------------------	---------------	-----------

#### LOCATION OF RELEASE

Unit Letter M	Section 32	Township 19S	Range 37E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea

Latitude 32° 36'36.8"      Longitude 103° 16' 47.7"

#### NATURE OF RELEASE

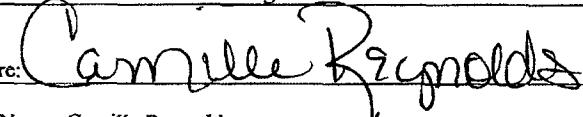
Type of Release Crude Oil	Volume of Release 5+barrels	Volume Recovered 0 barrels
Source of Release 6" Steel Pipeline	Date and Hour of Occurrence 12/05/2007 @ 11:30	Date and Hour of Discovery 12/05/2007 @ 12:00
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Pat Richards	
By Whom? Camille Reynolds	Date and Hour 12/05/2007@ 14:30	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. 	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* During purging activities discovered leak in the 6 inch pipeline resulting in release of crude. The line was cut and capped to mitigate the release. The line is idle so information concerning volume and pressure is unavailable.

Describe Area Affected and Cleanup Action Taken.\* The impacted soil was excavated and stockpiled on plastic. Aerial extent of surface impact was 1 square feet. Note: Upon completion of delineation activities will revise volume of release.

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: creyneolds@paalp.com	Conditions of Approval:	
Date: 12/11/2007	Phone: 505-441-0965	Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary

RPH 1685