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
'rict IV
)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

☐ Initial Report ☒ Final Report

Name of Company: Targa Midstream Services L P	Contact: Tim Jordan 1-505-396-3221
Address: PO Box 1689 Lovington NM 88260	Telephone No. 1-505-396-3221
Facility Name: Saunders Gathering System	Facility Type

Surface Owner: James and Rose Ann Johnson	Mineral Owner:	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North Line	Feet from the	West Line	County
D	18	15sS	35E	50		1750		Lea

Latitude 33.02455 N **Longitude** -103.45022W

NATURE OF RELEASE

Type of Release: Gas and Produced Liquids	Volume of Release: Gas and estimated less than 5 barrels of liquid.	Volume Recovered: None
Source of Release: 4" Gas Gathering Pipeline Failure, Line pressure 20#, Volume of throughput 50 mcfd, Line depth 3 feet, 0 H2S on well into line, Downstream well has 100,000 ppm H2S	Date and Hour of Occurrence: March 21, 2007	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
Whom?	Date and Hour	
as a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken. *
A Four (4) inch gathering line was hit by a contract pipeline company (BJB out of Denver City TX) working for BP and released gas and any produced liquids that were lying in the line. Field operators immediately blocked in line. As contractors continued to excavate, a dresser sleeve on the poly line was observed to be leaking. Targa removed the dresser sleeve and installed a flange on the pipe.

Describe Area Affected and Cleanup Action Taken.*
CRA, an environmental company,was hired by BP to be in charge of the cleanup of the area. After removing and sampling 360 tons of soil, BP determined they were finished with the cleanup as they believed there was previous contamination. TARGA retained Larson and Associates to assist in sampling and determination of area of soil contamination. TARGA has worked with the landowner to complete the remediation process and believes the area has been cleaned and tested per OCD guidelines and will backfill the excavation upon OCD approval.

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:	OIL CONSERVATION DIVISION
Printed Name: Don Embrey	Approved by District Supervisor: ENVIRONMENTAL ENGINEER
.tle: Advisor	Approval Date: 3.13.08 Expiration Date: 3.13.08
E-mail Address: dembrey@targaresources.com	Conditions of Approval: — Attached ☐ 1RP-1291
Date: 2/28/08 Phone: (432) 688-0546	

District I
1625 N. French Dr., Hobbs, NM 88240
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Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Targa Midstream Services L P	Contact: Tim Jordan 1-505-396-3221
Address: PO Box 1689 Lovington NM 88260	Telephone No. 1-505-396-3221
Facility Name: Saunders Gathering System	Facility Type

Surface Owner: Morten Field	Mineral Owner:	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North Line	Feet from the	West Line	County
D	18	15sS	35E	50		1750		Lea

Latitude 33.02455 N **Longitude** -103.45022W

NATURE OF RELEASE

Type of Release: Gas and Produced Liquids	Volume of Release: Gas and estimated less than 5 barrels of liquid.	Volume Recovered: None
Source of Release: 4" Gas Gathering Pipeline Failure, Line pressure 20#, Volume of throughput 50 mcfd, Line depth 3 feet, 0 H2S on well into line, Downstream well has 100,000 ppm H2S	Date and Hour of Occurrence: March 21, 2007	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
To Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken. *
A Four (4) inch gathering line was hit by a contract pipeline company (CJR out of Denver City TX) working for BP and released gas and any produced liquids that were lying in the line. Field operators immediately blocked in line. As contractors continued to excavate, a dresser sleeve on the poly line was observed to be leaking. Targa removed the dresser sleeve and installed a flange on the pipe.

Describe Area Affected and Cleanup Action Taken.*
The contractor will remove the contaminated soil and replace with new soil. The area will be cleaned and tested per OCD Guidelines.

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.

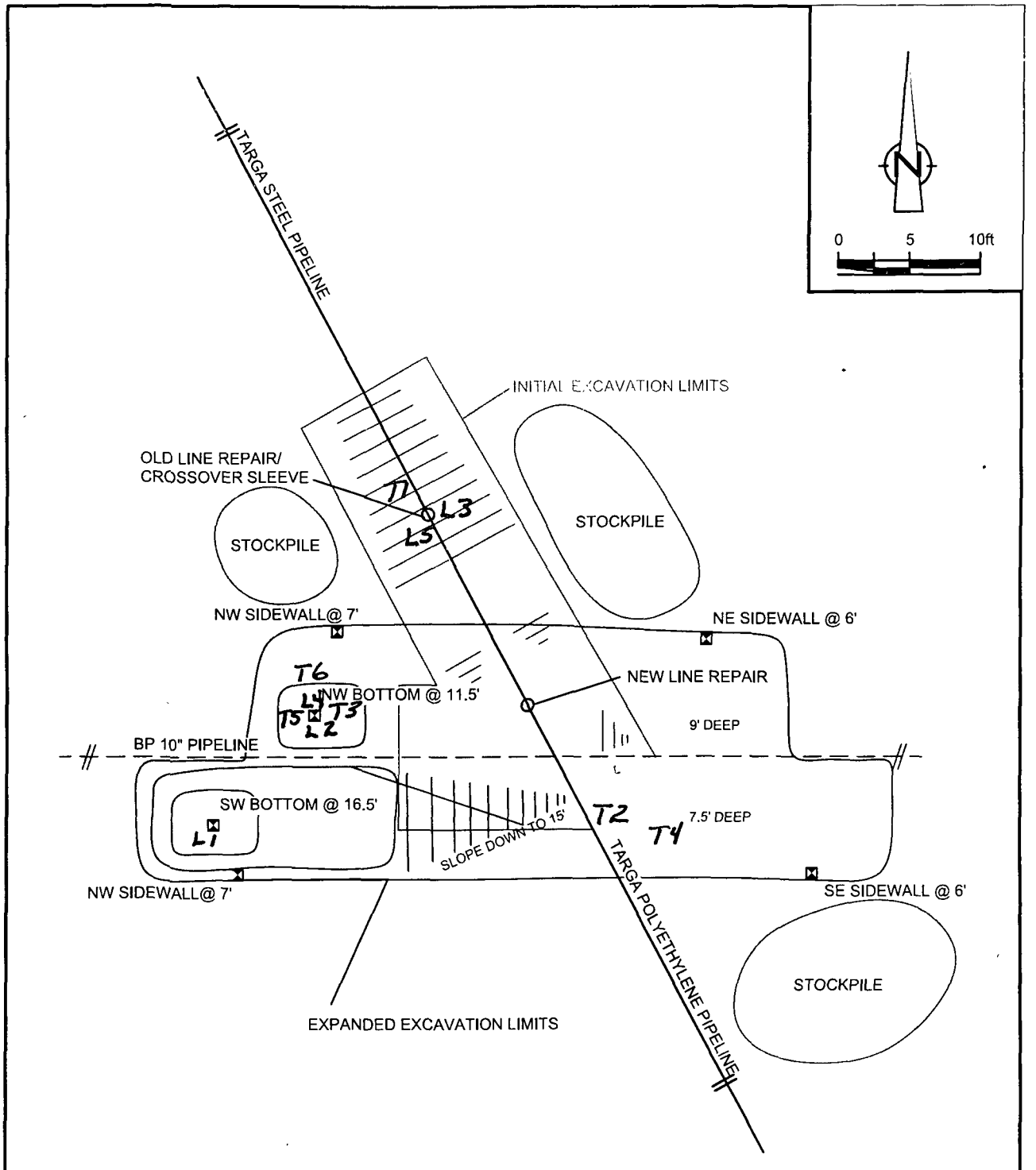
Signature: Don Embrey	OIL CONSERVATION DIVISION
Printed Name: Don Embrey	Approved by District Supervisor: Chris Eustice
Title: Advisor	Approval Date: 4.29.07 Expiration Date: 6.29.07
E-mail Address: dembrey@targaresources.com	Conditions of Approval: Attached ☐
Date: 4/18/07 Phone: (432) 688-0546	

* Attach Additional Sheets If Necessary

RP# 1291

	SAMPLE #	SAMPLE DATE	SAMPLE I.D.	SOIL STATUS	TPH GRO	TPH DRO	CHLORIDE
CRA	1	3/22/2007	Middle 5ft.	Excavated	1 38	249	
CRA	2	3/22/2007	New Line Repair 4ft.	Excavated	2660	14000	
CRA	3	3/22/2007	Old Line Repair 4ft	Excavated	1720	59600	
CRA	4	3/22/2007	South Sidewall 4ft.	Excavated	25.4	157 4	
CRA	4A	4/10/2007	South Sidewall (2) 4	In Situ	<1	<50	
CRA	5	3/22/2007	West Sidewall 4	In Situ	12.6	<50	
CRA	6	3/22/2007	East Sidewall 4	In Situ	8.61	<50	
CRA	7	3/22/2007	North Sidewall 4	In Situ	6.04	<50	
CRA	8	3/22/2007	Stockpile Composite	Landfill	1870	256	
CRA	9	4/10/2007	Bottom 7 ft.	Excavated	1380	531	
CRA	10	6/28/2007	SE Sidewall @ 6ft.	In Situ	7.52	50	
CRA	11	6/28/2007	NE Sidewall @ 6ft.	In Situ	3.31	<50	
CRA	12	6/28/2007	NW Sidewall @7ft.	In Situ	1.18	<50	
CRA	13	6/28/2007	SW Sidewall @ 6ft.	In Situ	<1	<50	
CRA	14	7/2/2007	NW Bottom @ 11.5 ft.	In Situ	1190	141	
CRA	15	7/2/2007	SW Bottom @ 16.5 ft.	In Situ	54 4	14.6	
LARSON	1	7/2/2007	Ledge @ 11.5 ft.	In Situ	3100	1000	6.6
LARSON	2	7/2/2007	Bottom @ 16.5 ft.	In Situ	17	160	16
LARSON	3	7/23/2007	Under Sleeve 2ft.	In Situ	<.0695	<3 14	
LARSON	4	7/23/2007	Ledge @ 11.5 ft.	In Situ	0.545	1000	
TARGA	1	3/29/2007	BP Damage Pipe	Excavated	28400	10500	176
TARGA	2	3/29/2007	BP Dresser Sleeve	Excavated	875	1900	256
TARGA	3	1/22/2008	Ledge @ 11.5 ft.	In Situ	<10	<10	
TARGA	4	1/22/2008	Bottom 7.5 ft.	In Situ	<10	<10	
TARGA	5	2/6/2008	Ledge @ 11 5 ft.	In Situ	<10	<10	16
TARGA	6	2/6/2008	12 ft. NW Corner	In Situ	<10	<10	<16

NOTE: TARGA samples and Larson samples were split with Mrs. Johnson.



LEGEND

GRAB SAMPLE LOCATION - EXPANDED EXCAVATION

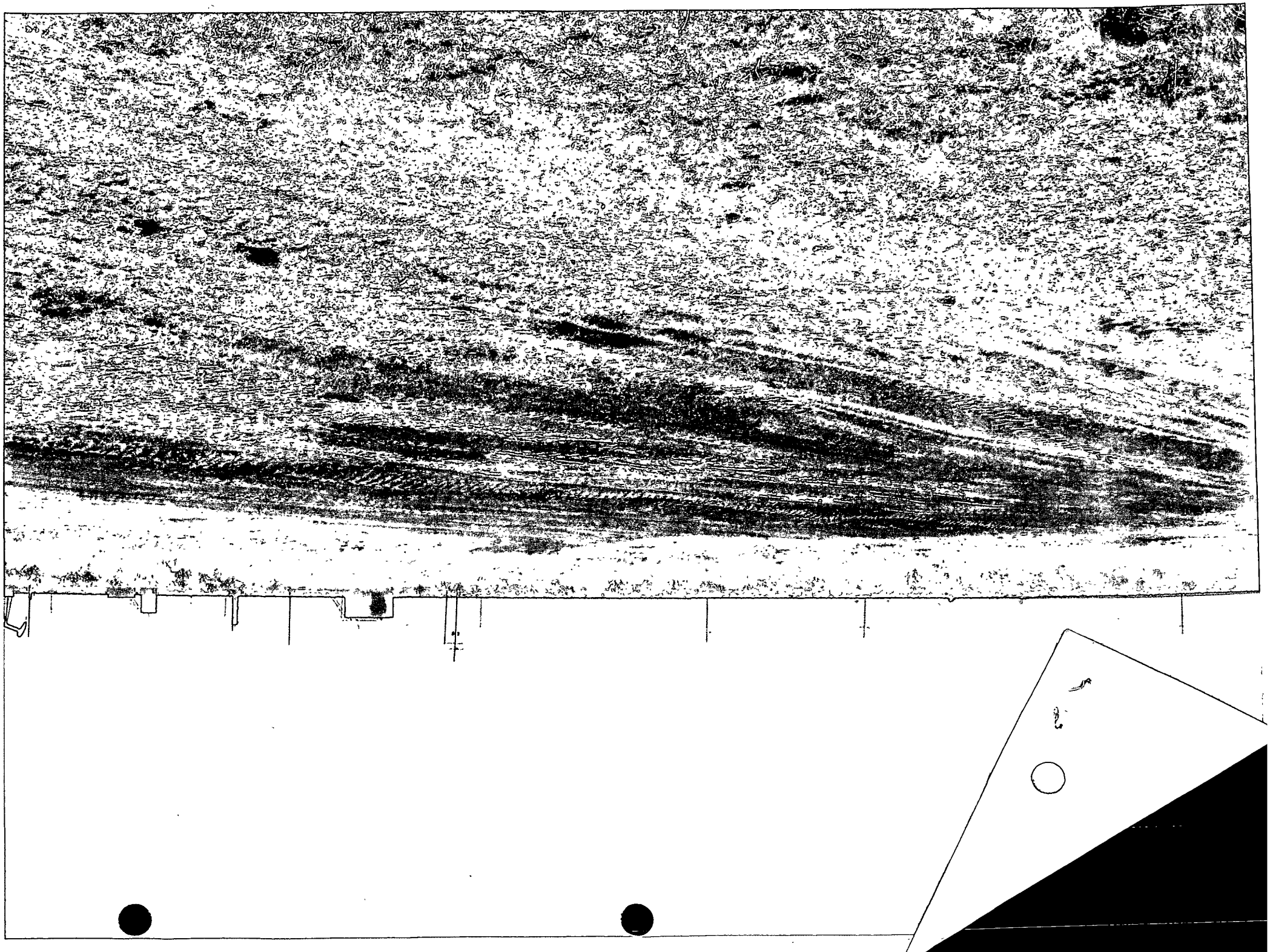
Note:

Sidewall samples collected on June 28, 2007 and bottom samples collected on July 2, 2007.

figure 4

EXPANDED SAMPLE LOCATION MAP
SAUNDERS TO DENTON MAINLINE
LEA COUNTY, NEW MEXICO
BP Pipelines (North America) Inc.

048797-00(001)GN-MD0004 SEP 6/07



CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
TARGA
ATTN: DON EMBREY
1000 DESTA DRIVE, SUITE 3300
MIDLAND, TX 79705
FAX TO: (432) 688-0552

Receiving Date: 03/29/07
Reporting Date: 03/30/07
Project Number: NOT GIVEN
Project Name: BP
Project Location: NOT GIVEN

Sampling Date: 03/29/07
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: LB
Analyzed By: BC/HM

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		03/30/07	03/30/07	03/30/07
H12401-1	BP DAMAGE PIPE	28400	10500	176
H12401-2	BP DRESSER SLEEVE	875	1900	256
Quality Control		777	789	490
True Value QC		800	800	500
% Recovery		97.1	98.6	98.0
Relative Percent Difference		3.3	1.1	0.0

T1
T2

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl^-: Std. Methods 4500-Cl^-B
*Analyses performed on 1:4 w:v aqueous extracts.

Chemist

3/30/07
Date

H12401

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
TARGA
ATTN: DON EMBREY
6 DESTA DRIVE, SUITE 3300
MIDLAND, TX 79705
FAX TO: (432) 688-0552

Receiving Date: 01/22/08
Reporting Date: 01/28/08
Project Number: NOT GIVEN
Project Name: JOHNSON
Project Location: NOT GIVEN

Sampling Date: 01/22/08
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: BC

T3
T4

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)
ANALYSIS DATE:		01/25/08	01/25/08
H14129-1	11 1/2' LEDGE	<10.0	<10.0
H14129-2	7 1/2' BOTTOM	<10.0	<10.0
Quality Control		749	766
True Value QC		800	800
% Recovery		93.7	95.8
Relative Percent Difference		1.0	6.1

METHOD: SW-846 8015 M

Chemist

1/28/08
Date

H14129 TARGA

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603

(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name: TARGA	**BILL TO**
Project Manager: Don Embrey	P.O. #:
Address: 6 Desta Drive Suite 3300	Company: TARGA
City: Midland State: TX Zip: 79705	Attn:
Phone #: 432-688-0546 Fax #: 432-688-0552	Address: P.O. Box 1689
Project #: Project Owner:	City: Lovington
Project Name: Johnson	State: NM Zip: 88260
Project Location:	Phone #:
Sampler Name: Don Embrey	Fax #:

ANALYSIS REQUEST: TPH

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	PRESERV: ACID/BASE	ICE / COOL	OTHER	SAMPLING: DATE	TIME
H14129-1	1½' Ledge	G	1			X							1-22	1:15
-2	7½' Bottom	G	1			X							1-22	1:15

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Don Embrey	Date: 1-22-08 Time: 1:45	Received By: Misty LeBus	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials) MCRB	REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
TARGA
ATTN: DON EMBREY
6 DESTA DR., SUITE 3300
MIDLAND, TX 79705
FAX TO: (432) 688-0552

Receiving Date: 02/06/08
Reporting Date: 02/07/08
Project Owner: NOT GIVEN
Project Name: NOT GIVEN
Project Location: JOHNSON

Sampling Date: 02/06/08
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: CK/KS

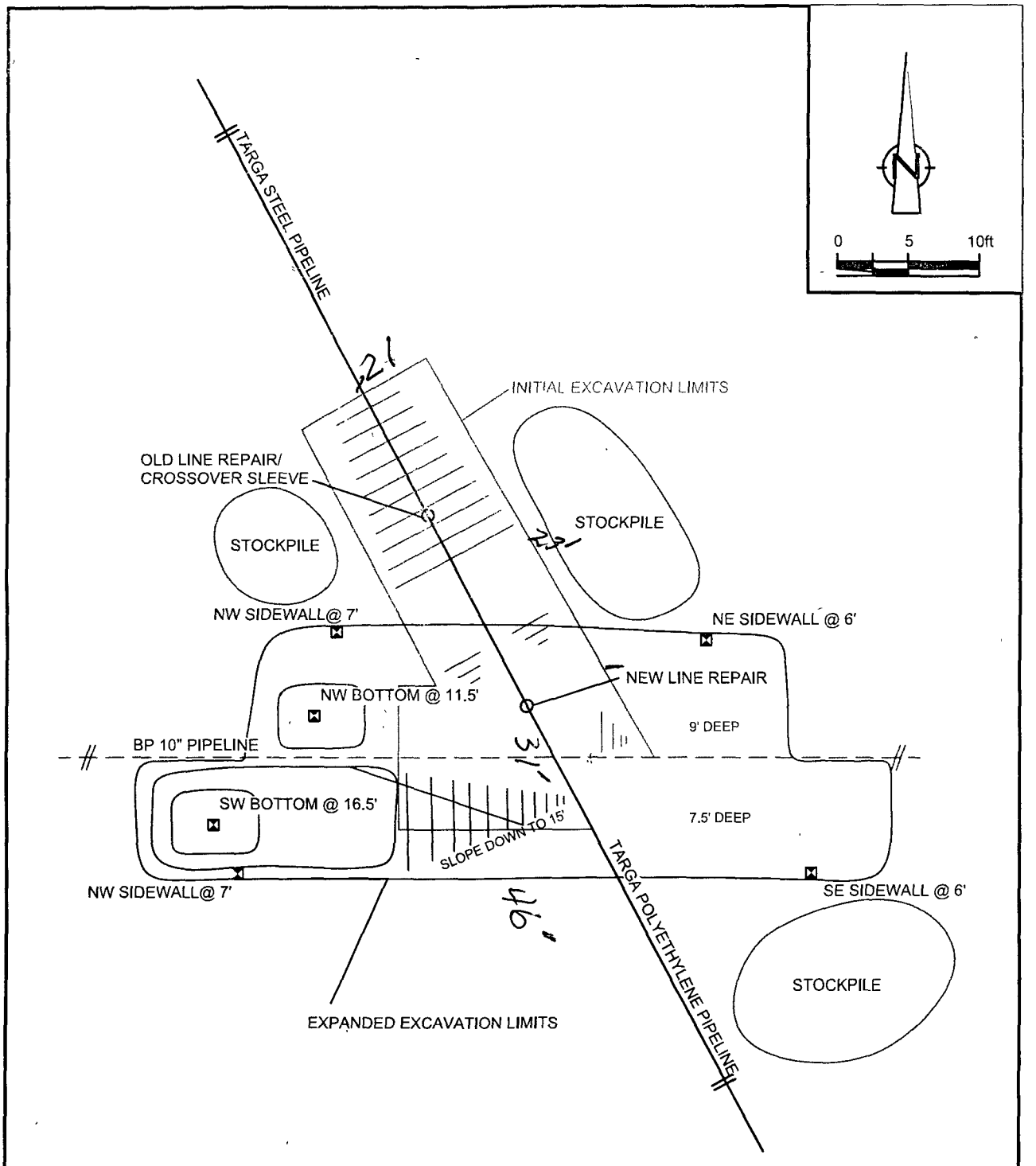
LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/kg)	DRO (>C_{10}-C_{28}) (mg/kg)	Cl* (mg/kg)
ANALYSIS DATE		02/06/08	02/06/08	02/06/08
T5 H14208-1	11 1/2 SHELF	<10.0	<10.0	16.0
T6 H14208-2	12 NW CORNER	<10.0	<10.0	<16.0
Quality Control		568	415	500
True Value QC		500	500	500
% Recovery		114	83.0	100
Relative Percent Difference		0.2	9.6	<0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-Cl B
*Analyses performed on 1:4 w:v aqueous extracts

Chemist

02/07/08
Date

H14208TCL TARGA



LEGEND

GRAB SAMPLE LOCATION - EXPANDED EXCAVATION

Note:

Sidewall samples collected on June 28, 2007 and bottom samples collected on July 2, 2007.

figure 4

EXPANDED SAMPLE LOCATION MAP
SAUNDERS TO DENTON MAINLINE
LEA COUNTY, NEW MEXICO
BP Pipelines (North America) Inc.

048797-00(001)GN-MD0004 SEP 6/07

TABLE I
SOIL SAMPLE ANALYTICAL DATA
BP PIPELINES (NORTH AMERICA), INC.
SAUNDERS TO DENTON MAINLINE RELEASE SITE
LEA COUNTY, NEW MEXICO

SAMPLE NUMBER	SAMPLE LOCATION	DATE	DEPTH (bgs) (feet)	BTEX					TPH		
				Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	TOTAL BTEX (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH GRO/DRO (mg/Kg)
New Mexico Oil Conservation Division Recommended Remediation Action Levels (Total Ranking Score 20)				10	---	---	---	50	---	---	100
Excavation Confirmation Sampling											
1	Middle	3/22/2007	5	<0.0100	<0.0100	<0.0100	**0.0267**	**0.0267**	**1.38**	**249**	**250.38**
2	New Line Repair	3/22/2007	4	-	-	-	-	-	**2,660**	**14,000**	**16,660**
3	Old Line Repair	3/22/2007	4	-	-	-	-	-	**1,720**	**59,600**	**61,320**
4	South Sidewall	3/22/2007	4	<0.0100	<0.0100	**0.258**	**0.761**	**1.019**	**25.4**	**132**	**157.4**
4A	South Sidewall (2)	4/10/2007	4	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<1 00	<50.0	<50.0
5	West Sidewall	3/22/2007	4	<0.0100	<0.0100	**0.0811**	**0.246**	**0.3271**	**12.6**	<50.0	<50.0
6	East Sidewall	3/22/2007	4	<0.0100	<0.0100	**0.0422**	**0.154**	**0.1962**	**8.61**	<50 0	<50.0
7	North Sidewall	3/22/2007	4	<0.0100	<0.0100	**0.0270**	**0.109**	**0.1360**	**6.04**	<50.0	<50.0
8	Stockpile (Composite)	3/22/2007	-	**8.88**	**69.9**	**18.4**	<0.0200	**97.18**	**1,870**	**256**	**2,126**
9	Bottom	4/10/2007	7	<0.0200	**12.2**	**3.16**	**37.1**	**52.46**	**1,380**	**531**	**1,911**
10	SE Sidewall @ 6'	6/28/2007	6	<0.0100	<0.0100	**0.0446**	**0.0580**	**0.1026**	**7.52**	**50.0**	**57.52**
11	NE Sidewall @ 6'	6/28/2007	6	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	**3.31**	<50.0	<50.0
12	NW Sidewall @ 7'	6/28/2007	7	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	**1.18**	<50.0	<50 0
13	SW Sidewall @ 6'	6/28/2007	7	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<1.00	<50.0	<50.0
14	NW Bottom @ 11.5'	7/2/2007	11.5	**0.407**	**2.170**	<50.0	**28.050**	**30.627**	**1,190**	**141**	**1,331**
15	SW Bottom @ 16.5	7/2/2007	16.5	<0.0100	<0.0100	<0.0100	<0 0100	<0.0100	**54.4**	**<14.6**	**54.4**

Notes:

1. BTEX analysis by EPA Method 8021B.
2. TPH analysis by EPA Method 8015 Modified.
3. **Bold** concentrations above laboratory detection levels.
4. Shaded concentrations above NMOCD RRALs.

TABLE II

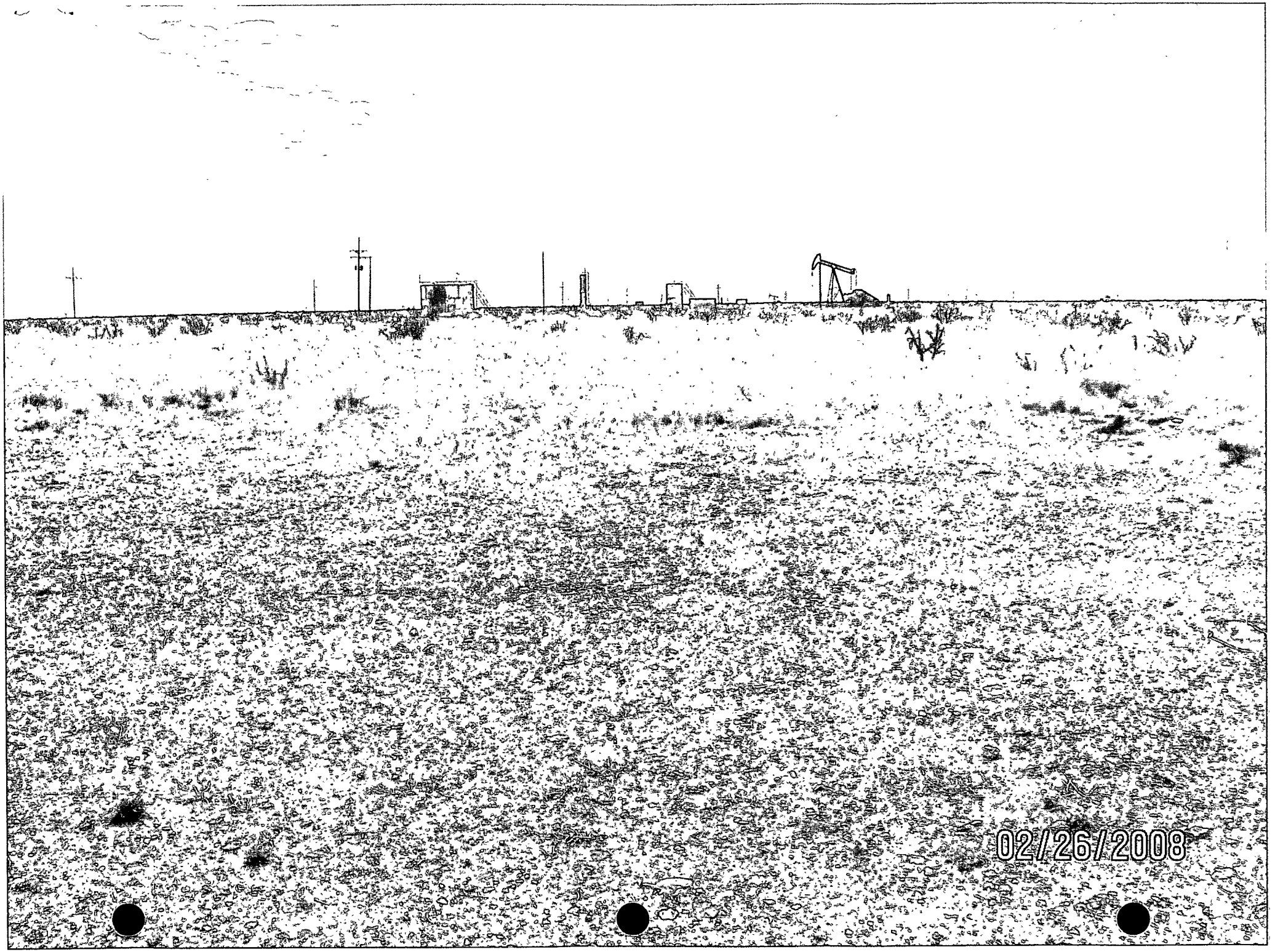
SOIL SAMPLE ANALYTICAL DATA - WASTE CHARACTERIZATION
BP PIPELINES (NORTH AMERICA), INC.
SAUNDERS TO DENTON MAINLINE RELEASE SITE
LEA COUNTY, NEW MEXICO

	SAMPLE	STOCKPILE COMPOSITE
	DATE	3/22/2007
	TYPE	soil
TPH	GRO (mg/Kg)	1870
TPH	DRO (mg/Kg)	256
TPH	GRO/DRO (mg/Kg)	2126
TOTAL METALS	TOTAL SILVER (mg/L)	<0.125
TOTAL METALS	TOTAL ARSENIC (mg/L)	<0.100
TOTAL METALS	TOTAL BARIUM (mg/L)	1.23
TOTAL METALS	TOTAL CADIUM (mg/L)	<0.0500
TOTAL METALS	TOTAL CHROMIUM (mg/L)	<0.100
TOTAL METALS	TOTAL MERCURY (mg/L)	<0.000500
TOTAL METALS	TOTAL LEAD (mg/L)	<0.100
TOTAL METALS	TOTAL SELENIUM (mg/L)	<0.500

Notes:

1. TPH by Method 8015 GRO/DRO
2. TCLP METALS by EPA Method S 6010B

02/26/2008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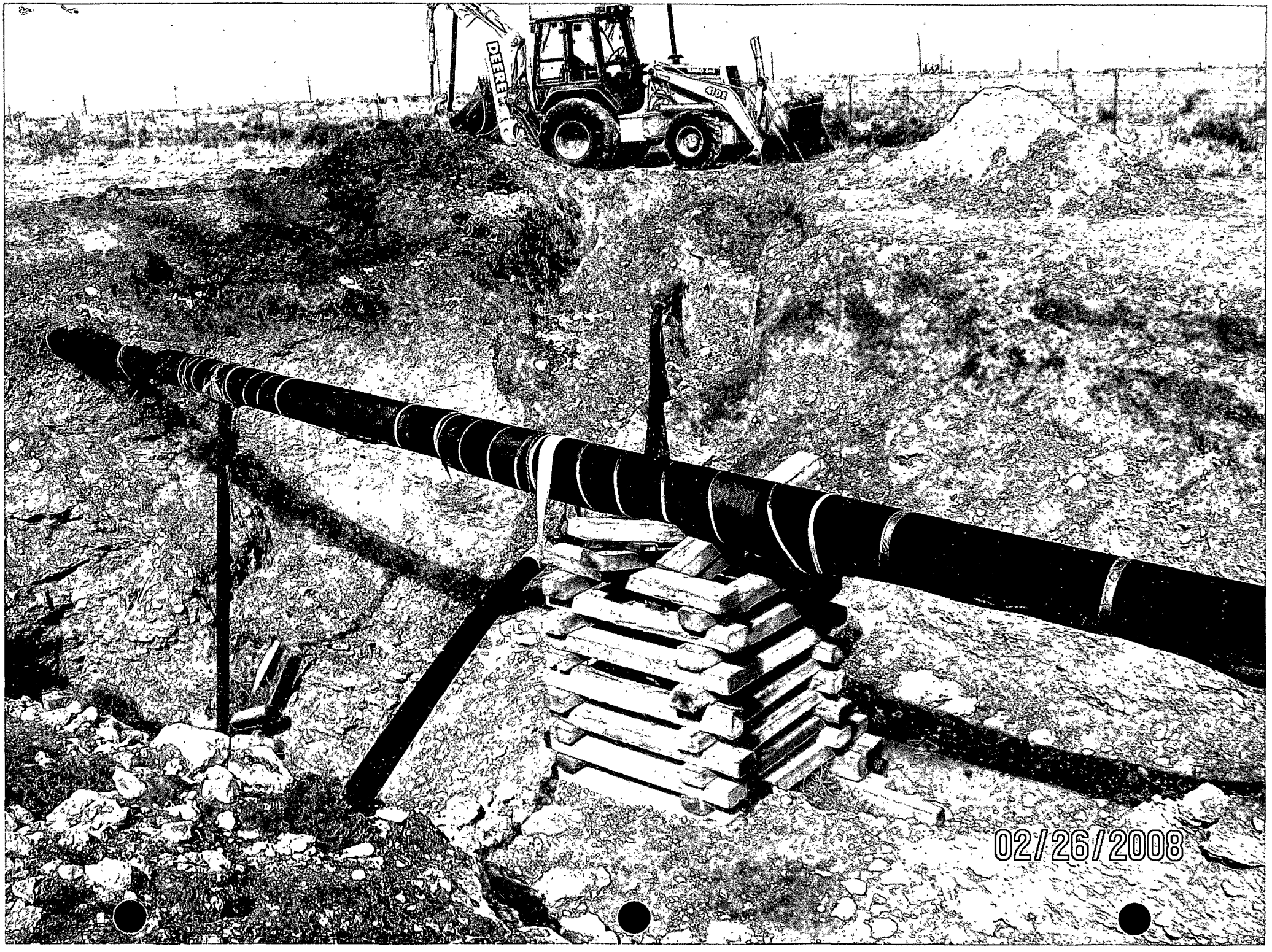
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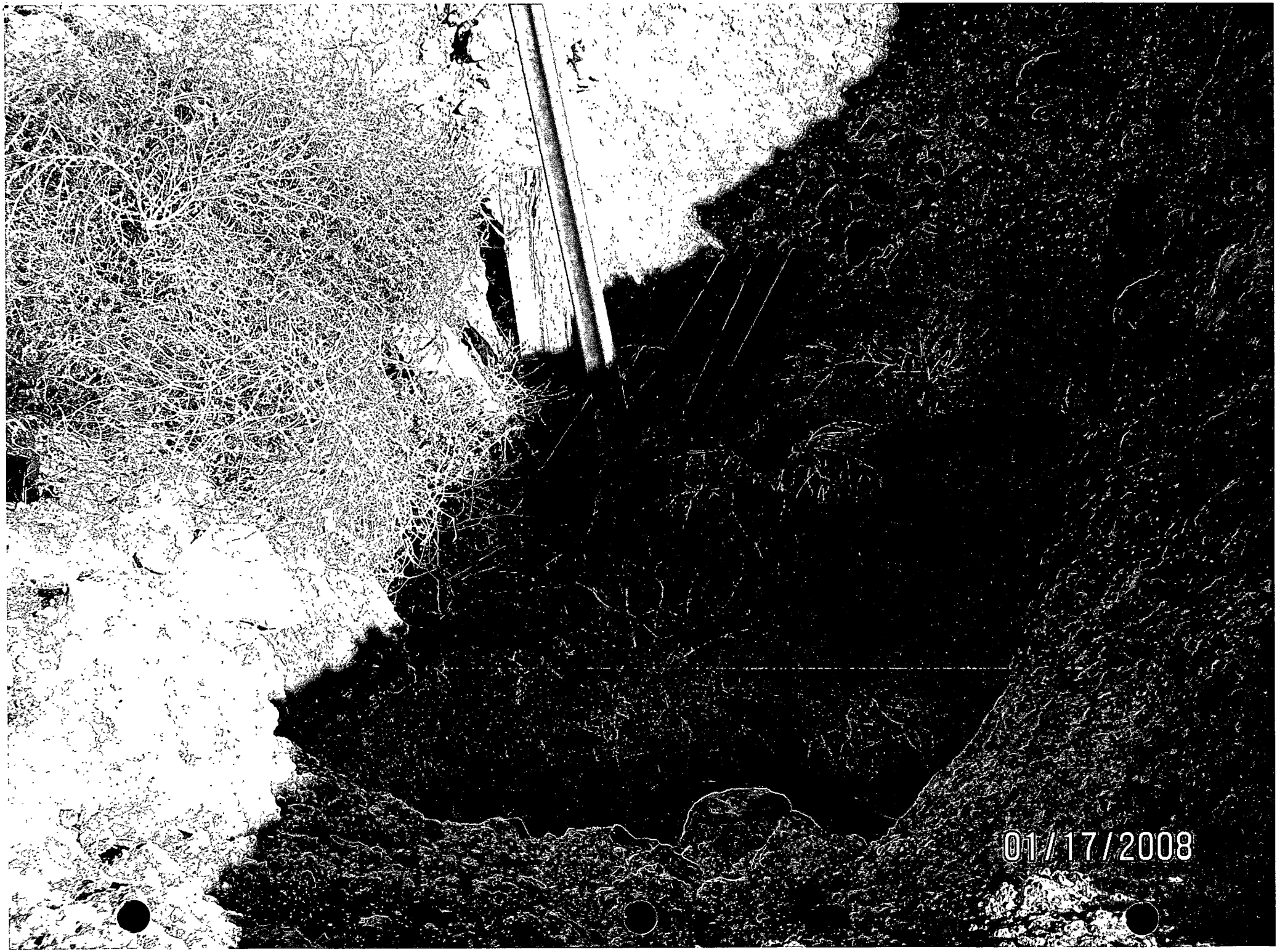
01/17/2008


01/17/2008


01/17/2008


01/17/2008

Atlantic Richfield Company

Michael R. Whelan
Enviromental Manager
US South & Latin America

501 Westlake Park Blvd
WL1 20.101d
Houston, TX 77079 USA
Direct (281) 366-7485
Fax (281) 366-7094
whelamr@bp.com

November 20, 2007

By Federal Express

Mr. Don Embrey
Regional Advisor
Targa Midstream Services
6 Desta Drive Suite 3300
Midland, TX 79705

RE: Soil Assessment and Remediation Report, Saunders to Denton Mainline, Lea County, New Mexico

Dear Don:

While working near BP's Saunders to Denton pipeline one our contractors hit a crossing Targa pipeline containing condensate in March, 2007. As a result, BP repaired the Targa pipeline and conducted an environmental assessment and subsequent remediation of the area. Enclosed is a copy of the *Soil Assessment and Remediation Report* (CRA, 10/31/07) which documents environmental activities conducted by our consultant, Conestoga-Rovers & Associates (CRA).

There are several key findings in the report that I would like to bring to your attention.

- BP's contractor repaired the line the day that it was hit. This is referred to in the report as the "New Line Repair".
- BP's contractor noticed a second leak along a previously-repaired section of the Targa line (a sleeve had been installed over the pipeline). Targa was notified. This line was not repaired by Targa for at least several days. This is referred to in the report as the "Old Line Repair".
- The quantity of condensate and the duration of the release from the "Old Line Repair" section of Targa's pipeline are unknown. It is also unclear as to the quantity of condensate that was released from this same portion of the pipeline prior to the original repair.
- BP's contractors excavated the condensate-impacted soil from the "New Line Repair". This soil was wet/moist, and easily discernable compared to the surrounding dry soil.
- Additional soil that appeared to be impacted from an older release and was not moist or fresh was also excavated by BP in an attempt to remediate a broader area—including soil that was impacted from Targa's "Old Line Repair". This is supported by laboratory chromatogram data.

- The impacted soil associated with the "New Line Repair" was excavated. However, based on laboratory data some additional impacted areas remain but are consistent with an older release.
- A total of 360 tons of impacted soil was excavated and disposed of offsite.
- As stated in the report, "Approximately 30-40%, 108-144 tons, of the hydrocarbon-impacted soils were from the wet saturated soil associated with the BP line strike, and the remaining 60-70%, 216-252 tons, of the hydrocarbon-impacted soil was from the residual Targa Leak".

For these reasons BP has completed all work at this site.

Additionally, BP sold their pipeline to Centurian Pipeline L.P. in July, 2007. Mr. Bill Von Drehle is the Director, HES/Regulatory/Compliance for Centurian and he can be reached at (713) 215-7379; bill_vondrehle@oxy.com. Centurian has placed supports under the section of their pipeline that is exposed in the excavation. Please notify Centurian prior to backfilling the excavation. It is our understanding that you are maintaining the fence around the excavation.

If you have any questions, please call me at (281) 366-7485.

Respectfully,

Michael R. Whelan

Michael R. Whelan, PG
Environmental Manager

cc: Mr. Bill Von Drehle-Centurian Pipeline L.P, Houston, TX
Mr. & Mrs. James L. & Rozanne Johnson, Lovington, NM

Enclosures: *Soil Assessment and Remediation Report* (CRA, 10/31/07)

CONESTOGA-ROVERS
& ASSOCIATES

2135 S. Loop 250 West
Midland, Texas 79703
Telephone: (432) 686-0086 Fax: (432) 686-0186
http://www craworld.com

October 31, 2007 Reference No. 048797 (1)

Mr. Jimmy Humble
BP PIPELINES (NORTH AMERICA), INC.
302 East Avenue A
Lovington, NM 88260

Re: Soil Assessment and Remediation Report
Saunders to Denton Mainline
Lea County, New Mexico

Dear Mr. Humble:

Conestoga-Rovers & Associates, Inc. (CRA) appreciates the opportunity to provide BP Pipelines (N.A.), Inc. (BP) the following Soil Assessment and Remediation Report associated with a condensate release at the Saunders to Denton Mainline Site (hereafter, referred to as the "Site"). Figures and tables are included in this correspondence as a reference to document the excavation, soil sampling and remedial activities performed at the Site from March to July 2007.

INITIAL RESPONSE ACTIVITIES-MARCH 16, 2007

The Site is situated eight miles northwest of Lovington, Lea County, New Mexico (FIGURE 1). The legal description of the Site is Section 18, T-15-S, R-35-E with GPS coordinates 33° 01.466' N Latitude and 103° 27.015' W Longitude. Assessment and remediation tasks were performed in response to a condensate release on Friday March 16, 2007 from a four-inch polyethylene pipeline owned by Targa Resources, Inc. (Targa). A subcontractor for BP, BJB Company (BJB) of Midland, Texas, was excavating around a BP-owned 10-inch crude oil pipeline to perform inspection activities on the pipeline when the excavator bucket struck the Targa four-inch polyethylene pipeline, resulting in a condensate release of less than five barrels (bbls). A copy of the incident report written by the BP contract inspector Ryan Wooley with MBF Inspection Services, Inc. is attached as APPENDIX A. Both BP and Targa were immediately notified of the release. The property owners James and Rozanne Johnson were also notified. The horizontal extent of the condensate release was limited by the containment of the fluid in the pre-existing excavation which was open to allow BJB to perform an inspection on the BP 10-inch steel pipeline. A berm was constructed around the north side of the release point and the condensate was contained in the southwest corner of the original excavation (FIGURE 2) on the opposite side from the Targa line and away from the leaking sleeve. The BP 10-inch crude oil pipeline and the Targa four-inch condensate pipeline were subsequently shut down and taken out of service. A vacuum truck arrived on location later that afternoon and removed the condensate fluid contained within the bermed excavation. The Targa technicians performed pipeline repair activities and the condensate line was pressure tested and placed back in service. A picture of the New Line Repair location is provided in APPENDIX B, PHOTO 1. Some of the condensate contaminated soil was removed from the excavation in order to perform the pipeline repair.

Chromatogram interpretation showed the highest degree of fresh condensate in the New Line Repair sample. A mixture of fresh and degraded material was observed in the chromatograms for the Old Line Repair Sample. The Targa polyethylene line in the area was installed some years ago replacing a section of steel line which, according to the BP contract inspector, had leaked under ownership previous to Targa and the leak was apparently the reason for the line replacement. During excavation and pipeline repair activities, hydrocarbon-impacted soil was encountered that did not appear to be associated with the recent BJB line strike condensate release. As the Targa pipeline was exposed approximately 20' to the northwest of the New Line Repair location to make the line repair, the soils changed from wet saturated soil to the dry relatively unimpacted soil in the proximity of the Middle Sample and then changed to black soils near the Old Line Repair location, indicative of a second impacted area (APPENDIX B, PHOTO 1). However, it is likely that none of this contamination was related to crude oil based on the chromatograms from the samples obtained in response to the release. All of the chromatograms had a signature consistent with condensate.

REGULATORY FRAMEWORK AND SITE CLASSIFICATION

Remediation was performed at this Site in accordance with New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills and Releases*, dated August 13, 1993. This project was conducted under the guideline requirements of the NMOCD, which requires the vadose zone shall be abated so that water contaminants in the vadose zone will not, with reasonable probability, contaminate groundwater or surface water (toxic pollutants, as defined in 20.6.2.7 New Mexico Administration Code (NMAC), were not present) through leaching, percolation, or other transport mechanisms (19.15.1.19 NMAC, Subsection B, Paragraphs 1 and 2). The NMOCD hydrocarbon soil remediation levels were determined by ranking onsite criteria, as outlined in the NMOCD 1993 guidance document. The ranking criteria were based on three site characteristics: depth to groundwater, wellhead protection and distance to surface water.

Currently, the average depth to groundwater is estimated at approximately 50 feet below ground surface (bgs), based on data obtained from the New Mexico Office of the State Engineer. The nearest wellhead is located at a distance greater than 1,000 feet from the Site. No surface water bodies are located within 1,000 feet from the Site. The table below illustrates the ranking criteria, used by the NMOCD, and includes site-specific characteristics.

Criteria	Site Characteristics	Ranking Score
Depth to Ground Water	<50 feet	20
Wellhead Protection Area	>1,000 feet	0
Distance to Surface Water	>1,000 feet	0
	Total Ranking Score	20

Based on the Site's characteristics and the *Guidelines for Remediation of Leaks, Spills and Releases*, the Site has a ranking score of 20. Consequently, the ranking criteria Recommended Remediation Action Levels

(RRALs) of 10 milligrams per kilogram (mg/Kg) Benzene, 50 mg/Kg total Benzene, Toluene, Ethylbenzene, and Xylene (BTEX), and 100 mg/Kg Total Petroleum Hydrocarbons (TPH) were utilized for remediation at the Site.

SITE ASSESSMENT ACTIVITIES-MARCH 19, 2007

CRA was at the Site initially on March 19, 2007 to meet with BP personnel, the MBF inspector and the BJB crew. CRA performed a Site inspection to document and photograph the Site conditions. During this visit, evidence of a separate leak on the Targa pipeline was noticed. The separate area of dark, wet, hydrocarbon-impacted soil was found immediately surrounding a sleeve on the Targa line located approximately 20 feet northwest from the portion of the Targa line that was hit by BJB (APPENDIX B, PHOTO 2). The leak occurred at the location of a sleeve at a transition point between the polyethylene and the steel on the Targa pipeline as shown as Old Line Repair in FIGURE 2. The wet soil surrounding the second leak in the Targa pipeline as well as the dry soil separating the two leaks is visible in the Site photograph from March 19, 2007 (APPENDIX B, PHOTO 1). The top four feet below ground surface (bgs) consisted of brown sandy topsoil which transitioned to white caliche soil approximately 4' (bgs). CRA reported the leak to the MBF inspector who in turn notified Targa of the leak that afternoon, as noted in the BP Daily Construction Log and Timeline (APPENDIX C).

SOIL ASSESSMENT AND REMEDIATION ACTIVITIES-MARCH 22 TO JULY 2, 2007

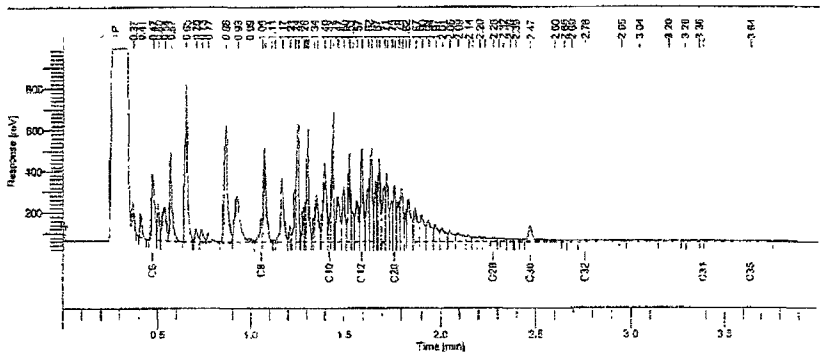
A detailed site chronology of the soil remediation activities performed between March 16, 2007 and July 3, 2007 is included as APPENDIX D. On March 22, 2007 CRA was on site with the MBF inspector and BJB crew to begin excavating the impacted soils in the immediate area surrounding the New Line Repair location. The BJB operator excavated the area where the product was initially contained. At approximately seven feet bgs, the excavator encountered a hard layer and was unable to excavate any deeper. The operator attempted to excavate on the other three sides of the pipelines and in each location encountered refusal and was unable to further excavate. The excavation was expanded horizontally to delineate the impacted soil. As excavation activities progressed, soil samples were periodically collected from the excavations at depths and locations based on the judgment of CRA field personnel to assess the completeness of the soil remedial activities. The soils that were contaminated from the recent March 16, 2007 condensate release were removed to the maximum extent practicable. The soil samples were field screened which included visual and olfactory observations as well as head space analysis. Head space analysis consisted of placing the soil sample in a re-sealable plastic bag leaving a headspace for volatile organic compounds (VOCs) to collect. After sufficient time had passed to allow for volatilization, the headspace in each bagged sample was measured using a RAE Systems Manufactured UltraRAE Photo-ionization Detector (PID) calibrated to a 100-ppm isobutylene standard.

Four sidewall grab samples, North, South, East and West Sidewall, and a Stockpile Composite sample were collected on March 22, 2007 for laboratory analysis (FIGURE 3). Samples were also collected at both spill locations and in the middle, New Line Repair, Old Line Repair and Middle samples, to distinguish between the two separate releases. Visible in APPENDIX B, PHOTO 1 is the wet soil surrounding both leaks and an area of dry soil separating the two leak sites. At this time, no samples were collected from

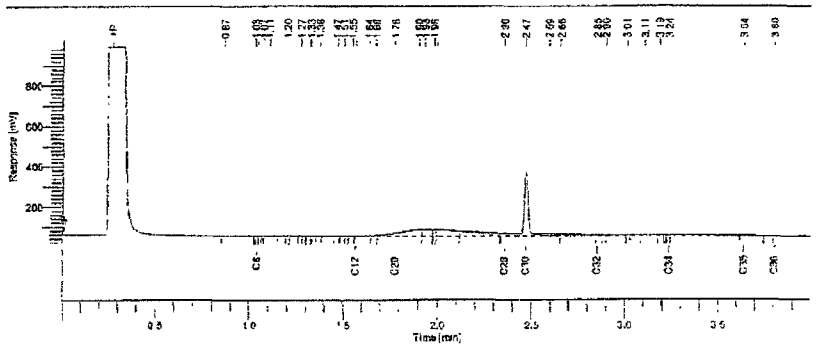
the bottom of the excavations due to the field screening results which indicated PID values greater than 2,000 ppm. The selected soil samples were delivered to TraceAnalysis, Inc. (Trace) in Midland, Texas for TPH (GRO/DRO) analysis by EPA Method 8015B (modified) and BTEX analysis by EPA Method 8021B. The Stockpile Composite sample was also analyzed for Total Metals by EPA method S 6010B. The TPH analytical data for the South Sidewall, New Line Repair, Old Line Repair and Stockpile (Composite) samples exhibited concentrations above NMOCD RRALs (TABLE I). The Middle sample was also above the 100 mg/Kg TPH regulatory limit; however, it was significantly lower than both the New and Old Line Repair samples, demonstrating two separate releases. Three chromatograms from the New Line Repair, Middle and Old Line Repair samples are presented in the following section. The first chromatogram shows the fresh condensate from the New Line Repair, the second chromatogram is the relatively unimpacted Middle sample and the third chromatogram is the condensate release from the Old Line Repair. The certified laboratory reports and chain-of-custody documentation are presented in APPENDIX E and the laboratory chromatograms are presented in APPENDIX F.

CHROMATOGRAMS

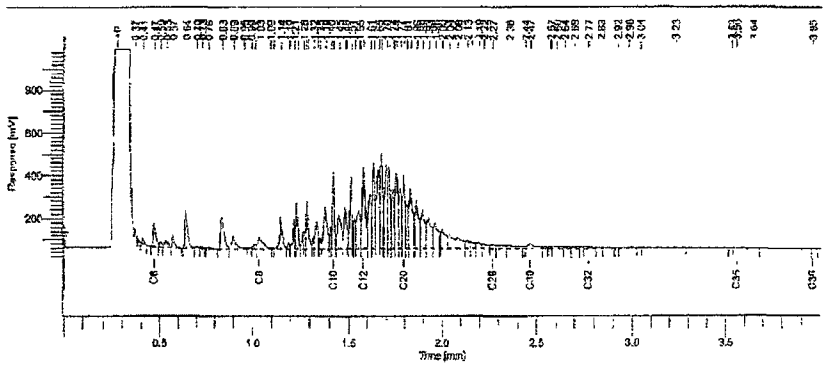
New Line Repair



Middle Sample



Old Line Repair



On June 27, 2007, a track excavator and rubber tire hammer hoe were mobilized to the Site and utilized to break through the hard layer in the bottom of the excavation approximately 7' bgs. The excavation was expanded vertically and horizontally in the southwest corner to evaluate the extent of hydrocarbon-impacted soil (FIGURE 4). The soils removed from the excavation were white colored caliche (APPENDIX B, PHOTO 3). At approximately 15 feet bgs in the southwest corner, black soil was encountered, evidence of stained soil not typical of a fresh condensate release (APPENDIX B, PHOTO 4). Review of the chromatograms also indicates that the dark staining is not contamination related to crude oil. In fact, none of the samples analyzed were indicative of crude oil based on the bulk of the hydrocarbons being smaller than C20. However, there were variations in the degree of degradation of the condensate, indicating residual material from historical spills. BP personnel were notified and the other three sides surrounding the release were over-excavated down to the black stained interval. The black stained soil layer varied in depth from 7.5 feet to 16.5 feet bgs as indicated in FIGURE 4. Sidewall samples were collected from the excavation and submitted to Trace. The laboratory analytical results of the sidewall samples, SE Sidewall, NE Sidewall, NW Sidewall and SW Sidewall, demonstrated results below the NMOCD RRALs (TABLE I). On July 2, 2007, personnel from the parties involved (BP, CRA, Targa, Larson and Associates-consultant for Targa, BJB and James and Rozanne Johnson) were on location to discuss the current condition of the Site and to split two samples of the black stained soil, NW Bottom @ 11.5' and SW Bottom @ 16.5', from the bottom of the excavation. The SW Bottom @ 16.5' sample is within regulatory limits. The NW Bottom @ 11.5' sample is composed of degraded condensate, not indicative of a recent release. According to BP personnel, there have been no releases from this BP pipeline in this area which was installed in 1967. As of July 3, 2007, the excavation remained open and fenced off from the surrounding field.

SOIL-STAGING AND HAULING ACTIVITIES-JUNE 29 TO JULY 3, 2007

Hydrocarbon-affected soils were removed and stockpiled on plastic sheeting adjacent to the remedial excavation (FIGURE 4). As shown in Table II, the soil stockpile composite sample was analyzed for TCLP Metals and the results exhibited non-hazardous characteristics. The non-hazardous waste material was identified as Non-DOT, Non-RCRA regulated hydrocarbon contaminated soil for offsite transport to the Lea Land Landfill facility located 30 miles east of Carlsbad, New Mexico at mile marker 64 on US Highway 62/180, NMOCD permit # WM-1-035 (APPENDIX G). The materials were loaded into roll off boxes at the prescribed staging area, and from June 29 to July 3, 2007, the soil was transported to the Lea Land Landfill. Appropriate documentation of the transportation bills-of-lading were maintained for all soils transported offsite (APPENDIX H). A total of 360 tons of hydrocarbon-impacted soils, approximately 328 cubic yards, were removed from the Site by BP in association with the (estimated <5 barrels) condensate release.

SUMMARY

The four-inch Targa polyethylene pipeline was struck and repaired on the same day, March 16, 2007. Immediately following the four-inch polyethylene pipeline strike, BP implemented soil assessment and remediation activities from the condensate release from March 16 until July 3, 2007. The release was less than the five barrel NMOCD reporting threshold. The obviously wet hydrocarbon-impacted soils were excavated down to the level of dry soil on March 22, 2007. Soils impacted from the March 16, 2007 release from the BJB hit to the Targa pipeline were removed using best management practices to the best extent identifiable. A total of 360 tons of hydrocarbon-impacted soils were excavated and transported to the Lea Land Landfill for disposal. Approximately 30-40%, 108-144 tons, of the hydrocarbon-impacted soils were from the wet saturated soil associated with the BP line strike, and the remaining 60-70%, 216-252 tons, of the hydrocarbon-impacted soil was from the residual Targa Leak.

The SE Sidewall @ 6', NE Sidewall @ 6', NW Sidewall @ 7', SW Sidewall @ 7' and SW Bottom @ 16.5' samples from the expanded excavation exhibited hydrocarbon concentrations below the NMOCD RRALs as outlined in the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases*, dated August 13, 1993. Excavation activities were ceased at the point where black stained hydrocarbon-impacted soils not typical of the fresh condensate release were encountered below the rock layer which varied from 7.5 to 16.5 feet bgs around the excavation (FIGURE 4).

A second leak was noticed in the Targa pipeline on March 19, 2007 at the sleeve where the polyethylene line changes over to steel (APPENDIX B, PHOTO 2). Targa was notified the same day by telephone of the leaking pipeline, but they were unable to send personnel to repair the leak due to another project and reported that they would repair the leak when personnel became available, as reported in the BP Daily Construction Log and Timeline (APPENDIX C). The Targa pipeline was noticed to still be leaking by CRA personnel on Site on March 22, 2007. Targa repaired the leak sometime between March 22 and March 29, 2007. The release at the sleeve had been leaking for an indeterminate amount of time.

If you have any questions or would like to discuss this project in more detail, please do not hesitate to contact the Midland office at (432) 686-0086.

Yours truly,
CONESTOGA-ROVERS & ASSOCIATES

Todd Wells

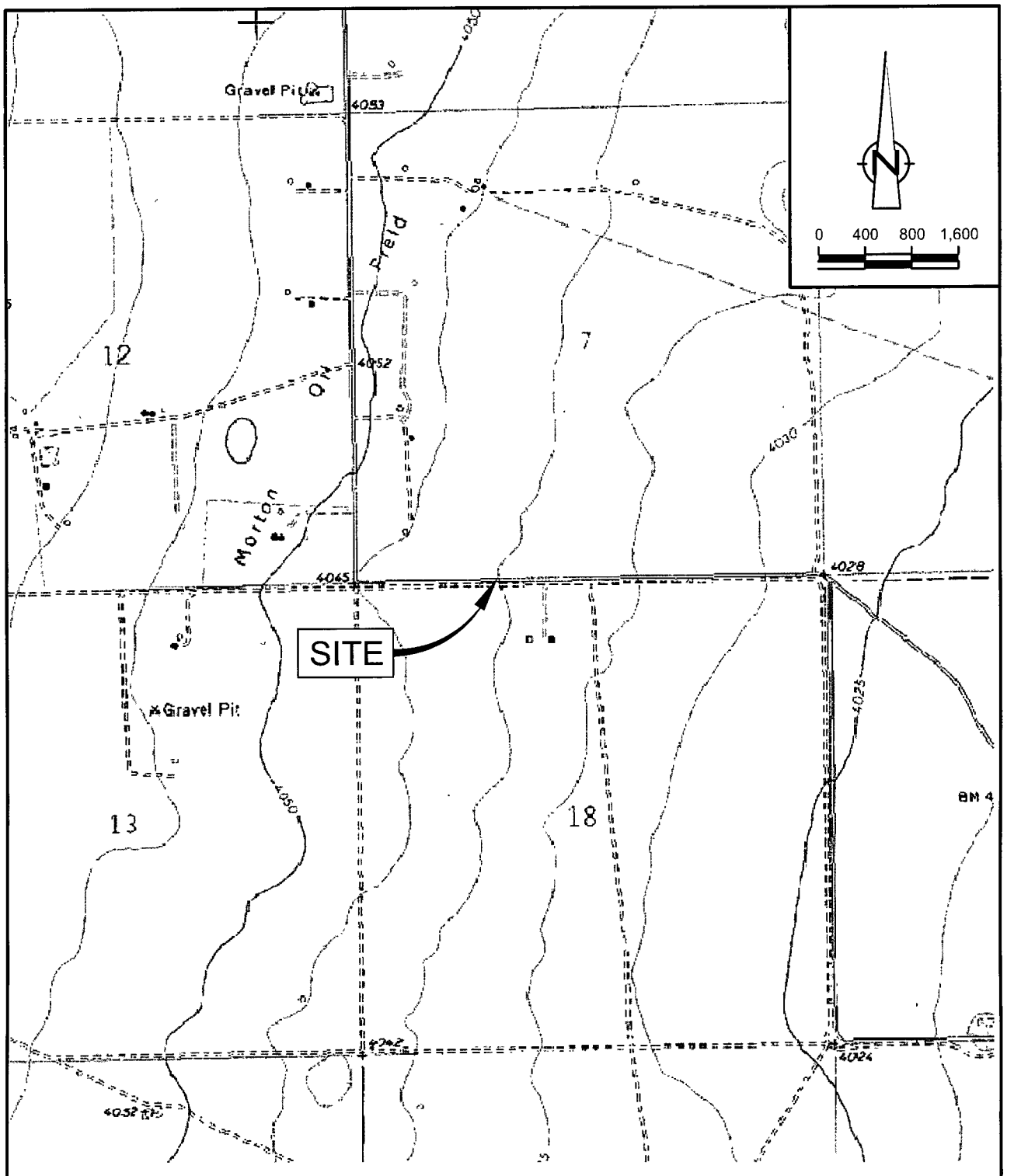
Thomas C Larson

Todd Wells
Project Manager

Thomas C. Larson
Operations Manager

Cc: Mr. Mike Whelan, BP Remediation Management

Attachments: FIGURE 1: Site Location Map
FIGURE 2: Site Details Map
FIGURE 3: Initial Sample Location Map
FIGURE 4: Expanded Sample Location Map
TABLE I: Soil Sample Analytical Data
TABLE II: Soil Sample Analytical Data - Waste Characterization
Appendix A - MBF Incident Report
Appendix B - Site Photos
Appendix C - BP Daily Construction Log and Timeline
Appendix D - Site Chronology
Appendix E - Certified Laboratory Analytical Reports and Chain-Of-Custody Forms
Appendix F - Laboratory Chromatograms
Appendix G - Lea Land Permit Approval Letter
Appendix H - Transportation Bills of Lading

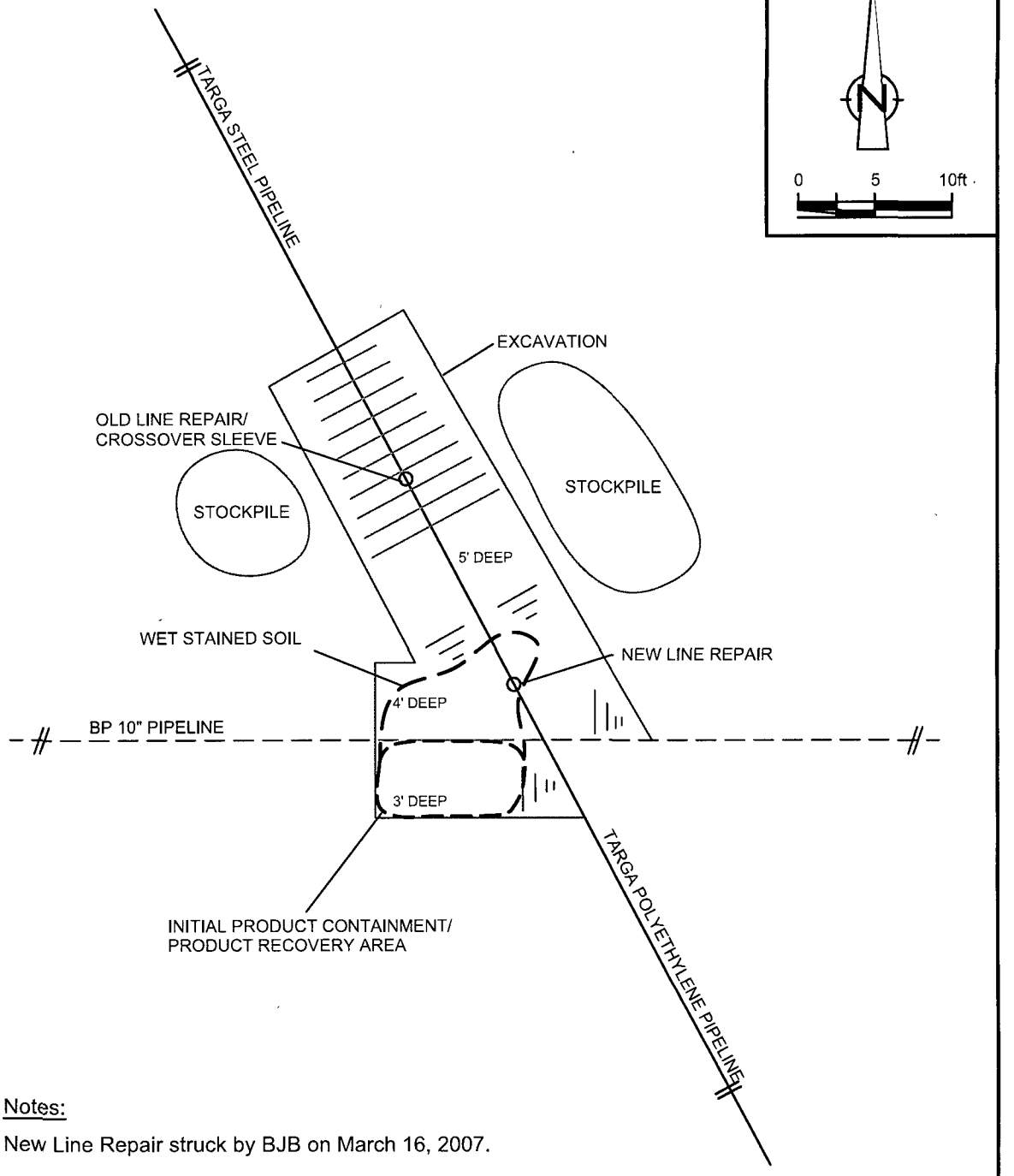


SOURCE: USGS QUADRANGLE MAP;
HILLBURN CITY SW, NEW MEXICO

33° 1 46' N, 103° 27.02' W

figure 1

SITE LOCATION MAP
SAUNDERS TO DENTON MAINLINE
LEA COUNTY, NEW MEXICO
BP Pipelines (North America) Inc.



Notes:

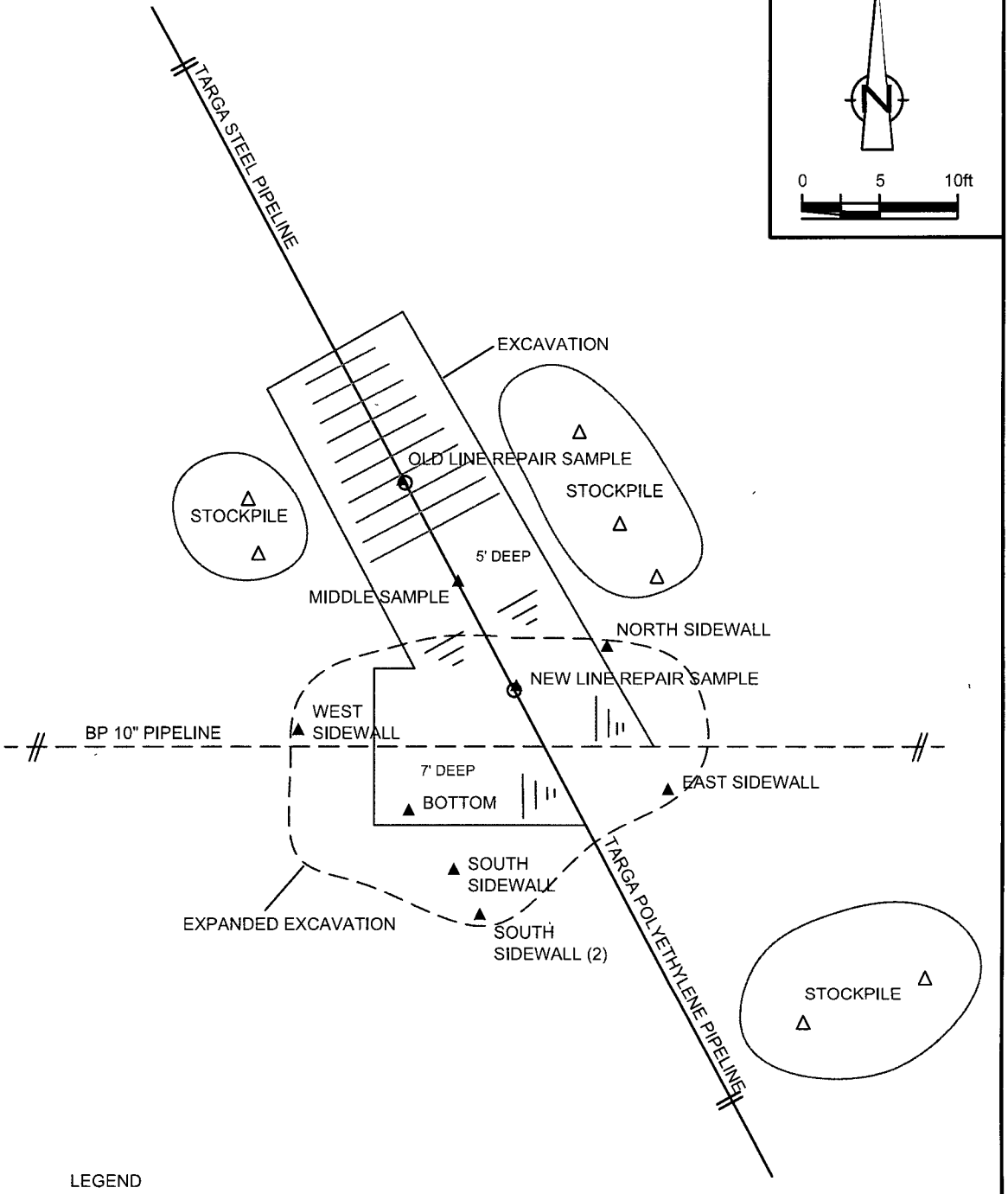
New Line Repair struck by BJB on March 16, 2007.

Old Line Repair location of leak on the Targa pipeline crossover sleeve from the polyethylene to steel pipeline.

Site Details Map as of March 19, 2007.

figure 2

SITE DETAILS MAP
SAUNDERS TO DENTON MAINLINE
LEA COUNTY, NEW MEXICO
BP Pipelines (North America) Inc.



LEGEND

▲ GRAB SAMPLE LOCATION

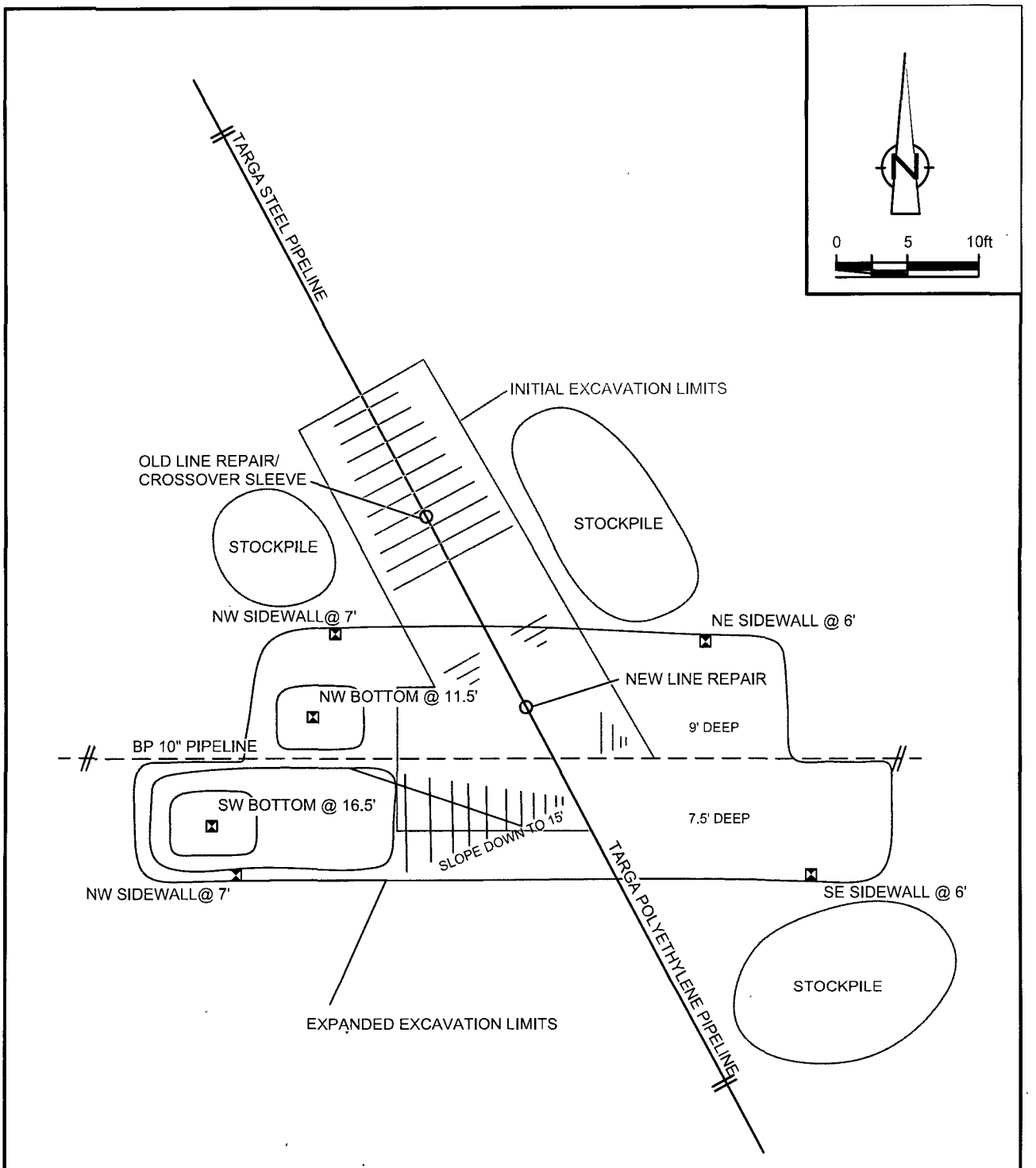
△ COMPOSITE SAMPLE LOCATION

figure 3

INITIAL SAMPLE LOCATION MAP
SAUNDERS TO DENTON MAINLINE
LEA COUNTY, NEW MEXICO
BP Pipelines (North America) Inc.

Note:

All samples collected on March 22, 2007 except for samples South Sidewall (2) and Bottom which were collected on April 10, 2007.



LEGEND

⊠ GRAB SAMPLE LOCATION - EXPANDED EXCAVATION

Note:

Sidewall samples collected on June 28, 2007 and bottom samples collected on July 2, 2007.

figure 4

EXPANDED SAMPLE LOCATION MAP
SAUNDERS TO DENTON MAINLINE
LEA COUNTY, NEW MEXICO
BP Pipelines (North America) Inc.

TABLE I
SOIL SAMPLE ANALYTICAL DATA
BP PIPELINES (NORTH AMERICA), INC.
SAUNDERS TO DENTON MAINLINE RELEASE SITE
LEA COUNTY, NEW MEXICO

SAMPLE NUMBER	SAMPLE LOCATION	DATE	DEPTH (bgs) (feet)	BTEX					TPH		
				Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	TOTAL BTEX (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH GRO/DRO (mg/Kg)
New Mexico Oil Conservation Division Recommended Remediation Action Levels (Total Ranking Score 20)				10	---	---	---	50	---	---	100
Excavation Confirmation Sampling											
1	Middle	3/22/2007	5	<0 0100	<0 0100	<0.0100	**0.0267**	**0.0267**	**1.38**	**249**	**250.38**
2	New Line Repair	3/22/2007	4	-	-	-	-	-	**2,660**	**14,000**	**16,660**
3	Old Line Repair	3/22/2007	4	-	-	-	-	-	**1,720**	**59,600**	**61,320**
4	South Sidewall	3/22/2007	4	<0 0100	<0 0100	**0.258**	**0.761**	**1.019**	**25.4**	**132**	**157.4**
4A	South Sidewall (2)	4/10/2007	4	<0 0100	<0 0100	<0 0100	<0 0100	<0 0100	<1.00	<50 0	<50 0
5	West Sidewall	3/22/2007	4	<0 0100	<0 0100	**0.0811**	**0.246**	**0.3271**	**12.6**	<50.0	<50.0
6	East Sidewall	3/22/2007	4	<0 0100	<0 0100	**0.0422**	**0.154**	**0.1962**	**8.61**	<50.0	<50 0
7	North Sidewall	3/22/2007	4	<0 0100	<0.0100	**0.0270**	**0.109**	**0.1360**	**6.04**	<50 0	<50 0
8	Stockpile (Composite)	3/22/2007	-	**8.88**	**69.9**	**18.4**	<0.0200	**97.18**	**1,870**	**256**	**2,126**
9	Bottom	4/10/2007	7	<0 0200	**12.2**	**3.16**	**37.1**	**52.46**	**1,380**	**531**	**1,911**
10	SE Sidewall @ 6'	6/28/2007	6	<0 0100	<0 0100	**0.0446**	**0.0580**	**0.1026**	**7.52**	**50.0**	**57.52**
11	NE Sidewall @ 6'	6/28/2007	6	<0.0100	<0.0100	<0 0100	<0 0100	<0 0100	**3.31**	<50 0	<50 0
12	NW Sidewall @ 7'	6/28/2007	7	<0.0100	<0.0100	<0 0100	<0 0100	<0 0100	**1.18**	<50 0	<50 0
13	SW Sidewall @ 6'	6/28/2007	7	<0.0100	<0 0100	<0 0100	<0 0100	<0 0100	<1.00	<50 0	<50.0
14	NW Bottom @ 11.5'	7/2/2007	11 5	**0.407**	**2.170**	<50.0	**28.050**	**30.627**	**1,190**	**141**	**1,331**
15	SW Bottom @ 16.5	7/2/2007	16.5	<0.0100	<0 0100	<0 0100	<0.0100	<0 0100	**54.4**	**<14.6**	**54.4**

Notes:

1. BTEX analysis by EPA Method 8021B
2. TPH analysis by EPA Method 8015 Modified.
3. **Bold** concentrations above laboratory detection levels
4. Shaded concentrations above NMOCD RRALs.

TABLE II

SOIL SAMPLE ANALYTICAL DATA - WASTE CHARACTERIZATION
BP PIPELINES (NORTH AMERICA), INC.
SAUNDERS TO DENTON MAINLINE RELEASE SITE
LEA COUNTY, NEW MEXICO

	SAMPLE	STOCKPILE COMPOSITE
	DATE	3/22/2007
	TYPE	soil
TPH	GRO (mg/Kg)	1870
TPH	DRO (mg/Kg)	256
TPH	GRO/DRO (mg/Kg)	2126
TOTAL METALS	TOTAL SILVER (mg/L)	<0.125
TOTAL METALS	TOTAL ARSENIC (mg/L)	<0.100
TOTAL METALS	TOTAL BARIUM (mg/L)	1.23
TOTAL METALS	TOTAL CADIUM (mg/L)	<0 0500
TOTAL METALS	TOTAL CHROMIUM (mg/L)	<0.100
TOTAL METALS	TOTAL MERCURY (mg/L)	<0.000500
TOTAL METALS	TOTAL LEAD (mg/L)	<0.100
TOTAL METALS	TOTAL SELENIUM (mg/L)	<0.500

Notes:

1. TPH by Method 8015 GRO/DRO
2. TCLP METALS by EPA Method S 6010B

APPENDIX A

MBF INCIDENT REPORT

BP Saunders to Denton Mainline
#04879,
Lea County, NM TW

To Mr. Jim Blume,

In regards to the foreign line strike on the 16th of March 2007, these are the events of the day in chronological order, along with statements from all of those present at the time of the foreign line strike. The majority of times given are a close approximation, while others are quite precise.

At 7:30 we met at the BP yard in Lovington to pick up the backhoe, and then left to finish up dig at site 14 from the previous day. At 8:00 we unloaded the backhoe and fueled up, then walked it into the dig site. At 8:15 I called control. I spoke with Dave and informed him that we would be digging around line. At 8:20 we held our daily tailgate meeting. Discussed PPE and working around livestock. At 8:25 began digging bell hole for repair of dig site 14. 9:20 done with bell hole, and began to re-set metal fence around excavation. At 9:45 done re-setting metal fence. Loaded backhoe and left for dig site 13.

At 10:30 we found that all of the entrances to dig site 13 had combination locks in which I did not know the combinations. I attempted to get in touch with Bobby Vanzant by phone, but the he seemed to be in an area of poor reception, and could not get through. So we decided to skip ahead to sites 11 and 12 since they were near, and I had a key to the locks. At 10:50 we arrived at dig site 11. I called control, and spoke with Dave. Informed him that we were done at previous location and would be excavating at dig site 11. At 11:00 we held another tailgate meeting. Discussed PPE, probing pipe, and potholing strategies, since our AGM's had been inaccurate so many times.

At 11:15 began excavation of dig site 11. At 12:20 we spotted the up stream weld. The thickness of calcium deposit made it hard to find the weld. We then measured off the distance to anomaly and down stream weld. At 12:45 we spotted the down stream weld to confirm joint length since visual identification of the anomaly was going to be difficult. We found that we were on the wrong joint. We then potholed the next up stream weld since we had a good portion of the joint already exposed at 1:00. Compared joint lengths and found that we were 1 joint off in the up stream direction, when measured from AGM 54. At approx 1:10 Paul Bernard, the HSSE rep went into town to pick up a pizza that we had ordered, since the crew was working through lunch.

At 1:25 we spotted the weld down stream of anomaly. Measured off and confirmed joint length, and area of anomaly. Marked the area of anomaly on pipe wit spray paint since visual identification was poor. At 1:30 operator began to bell hole ditch for repair. At 1:33 the operator struck a foreign 4" poly flow line crossing BP's 10" being excavated. Called control and informed Dave of product leak and asked him to shut down the line. Upon inspection I found that a foreign poly flow line had been struck. I found one of the flags from the one-call and called the number for Targa Midstream Services (505) 396-3221. The number gave multiple extensions to choose from. I first chose the extension for their control center. The man that answered said that he did not know how to handle it, so he tried to transfer me to the field office. I was disconnected when he tried to do this. I then called the same number and chose the extension for the field office. This led me to another message in with multiple contact numbers for field techs. I wrote down the field tech numbers. I was able to get in touch with Thomas Espanosa, the first tech I called at approx 1:38 at (505) 631-8912. I informed him of situation and he left to come shut down line. At 1:40 Dave from control

called back. I informed him that it was a foreign line that had been struck, not BP's as I had first though, however he had already shut down the line. At 1:50 three of us followed the Targa ROW in search of a shut off valve to stop flow, but were unable to locate it before the field techs arrived. At 2:30 field techs arrived and shut down line flow.

Field techs assessed situation and decided it could be fixed that day. At 3:10 excavated foreign line for repair on the North side where leaked product was still contained in the original ditch. At 4:00 the Vac truck arrived (Roger's Trucking Co (?)). Extracted product out of ditch. At 4:20 field techs began poly line repair. At 5:10 techs completed line repair and tested it with pressure. The line held fine. At 5:15 crew constructed safety fence around excavation and exposed RGW's. As well, backfilled extra ditch between welds and left welds open for reference. At 5:55 I called control, and informed Sean that we were done for the day. At 6:15 we left ROW and I checked locks on gates.

Here are the statements taken from crew members working at the time of the line strike:

Chris Pearson (BJB operator): After spotting location of anomaly, began to construct walkouts for ditch. Because we had potholed on the West end of the ditch, could not set back hoe there, so decided to put both walk outs on the North and South side of line on the East end of ditch. Constructed walk out on the North side of line, and upon completion of walk out on South side of line, he hit the 4" poly line flow line crossing BP's line. Stated that the Targa flag on top of BP line was only flag visible. Cross line was flagged to the North, but not to South. Therefore the other line flags were behind him with the way the back hoe was sitting, and the one visible Targa flag was directly on top of BP's line in the same manner as the other flags used to stake off the anomaly, so he didn't notice it. Once hit cross-line, pushed dirt over it to divert product and covered it with back hoe bucket. He then shut everything down and got out of the area.

Armando Medina (BJB labor/ fire watch): We had just identified location of anomaly. Were digging out second walk out when operator hit the cross line. Grabbed the fire extinguisher, observed situation, and backed up from area.

Jose Ortiz (BJB labor): When building second walk out on south side of BP line, hit the cross line on last scoop. Said that there were no flags Targa flags on the North side of BP line. He saw the flag on top of BP line, but associated it with the other markers flagged on line to locate anomalies. Interpreted no visible risk with digging the walk out.

Paul Bernard (ASI HSSE): Not on location. He had left to pick up lunch for the crew since they were working through lunch.

If anyone would like any more information regarding this situation please feel free to contact me.

Sincerely,

R. Ryan Wooley
MBF Inspector
970-988-2214
wooleypt@yahoo.com

APPENDIX B

SITE PHOTOS

BP Pipelines (North America), Inc.
Saunders to Denton Mainline
Lea County, New Mexico

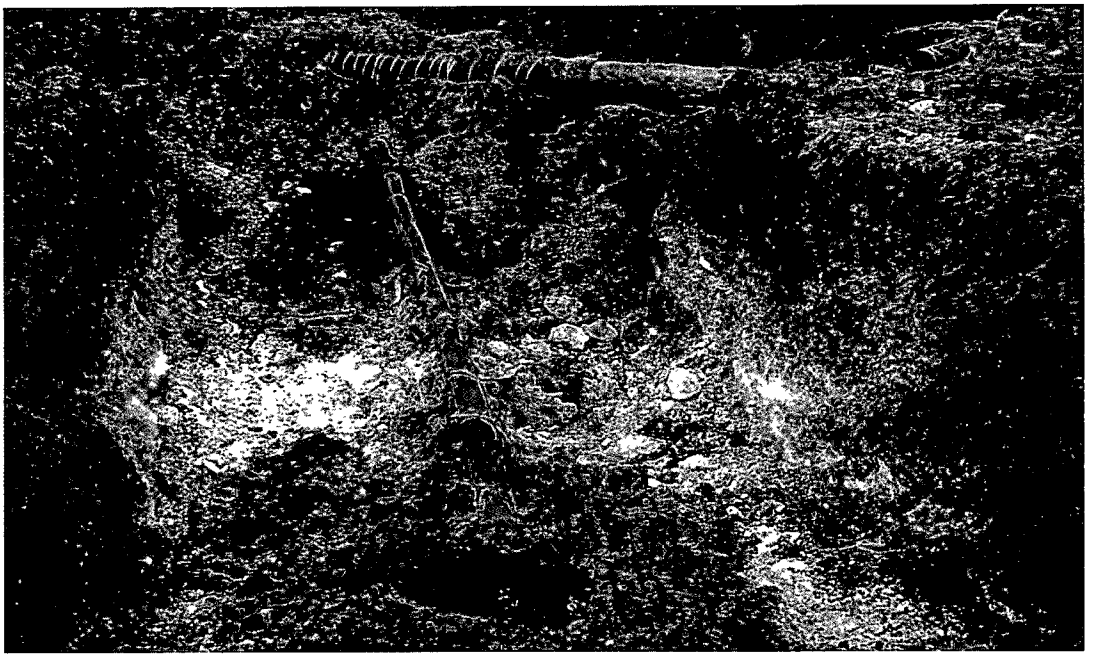


Photo 1 – Saunders to Denton Mainline excavation showing the New Line Repair at the top and the leaking Old Line Repair at the bottom on March 19, 2007

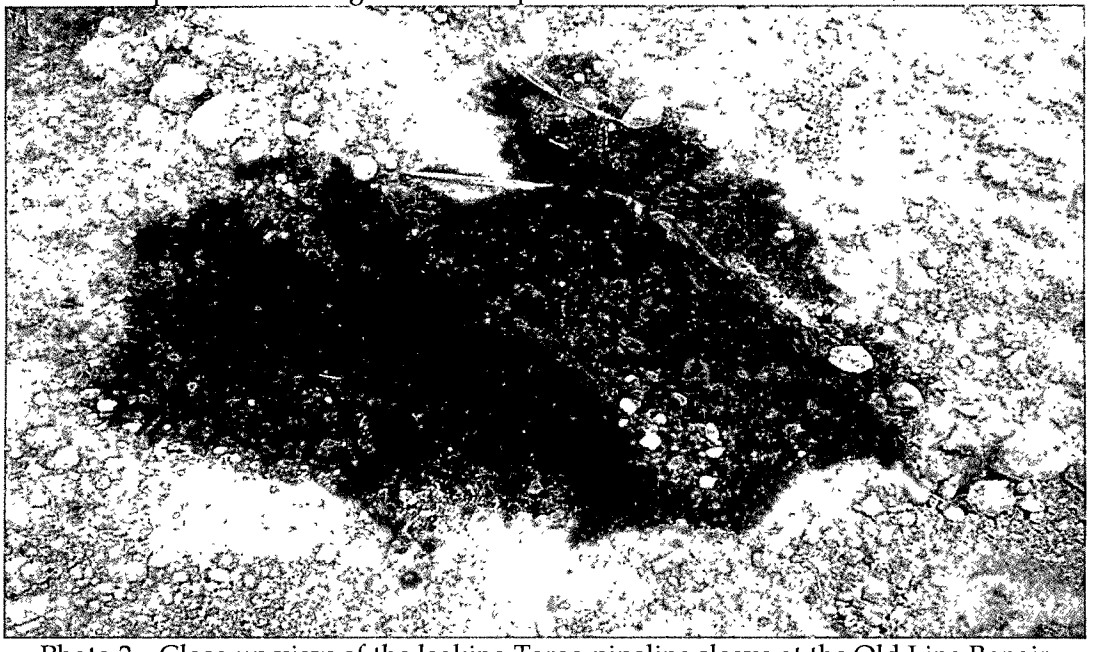


Photo 2 – Close up view of the leaking Targa pipeline sleeve at the Old Line Repair location on March 19, 2007.

CONESTOGA-ROVERS
& ASSOCIATES

BP Pipelines (North America), Inc.
Saunders to Denton Mainline
Lea County, New Mexico

Photo 3 – Overview of the Site excavation on July 2, 2007 looking to the east and demonstrating the white caliche soils.

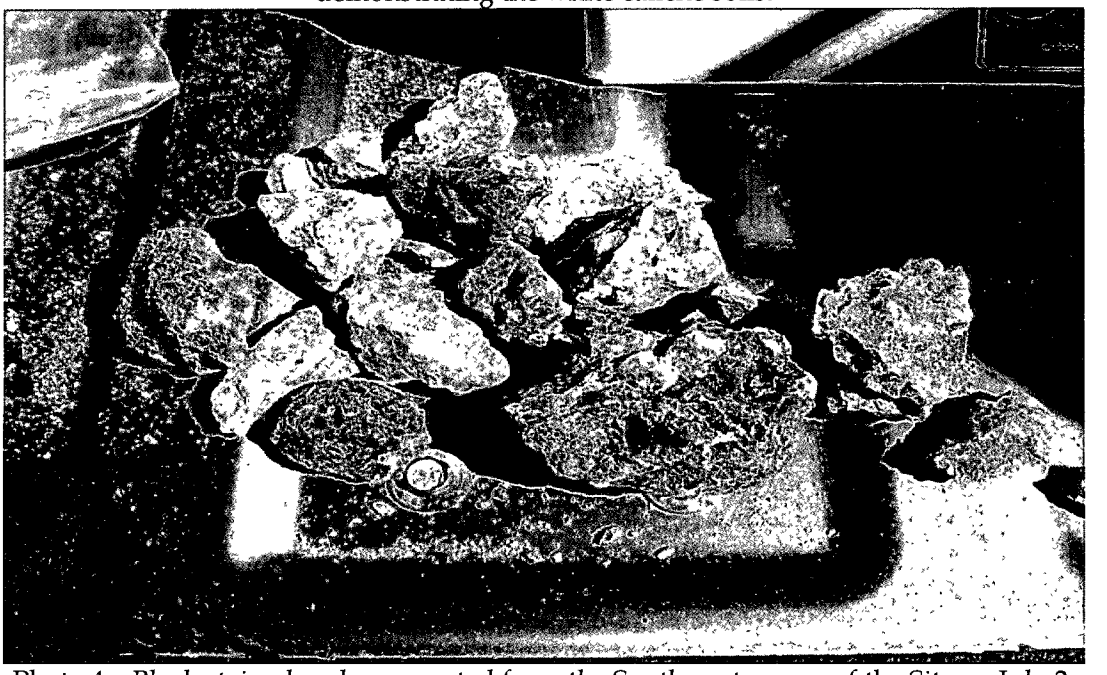


Photo 4 – Black stained rocks excavated from the Southwest corner of the Site on July 2, 2007.

CONESTOGA-ROVERS
& ASSOCIATES

APPENDIX C

BP DAILY CONSTRUCTION LOG AND TIMELINE

BP Pipelines (North America)

DAILY CONSTRUCTION LOG

(Use "Tab" or Curser or Arrow Keys to Navigate)

Project # ZLINDS45X8 Date 3/19/07

Project Name Artesia – Denton 10"

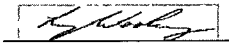
Contractor BJB

Weather Clear

Construction Activity

7:30 – Met at BP yard in Lovington.
7:45 – Met with Todd Wells from CRA. Discussed foreign line strike and explained situation in verbal summary as well as giving him a copy of report.
7:55 – Hooked onto trailer.
8:05 – Held tailgate meeting with crew that was present. Discussed BJB training course attended on Saturday, what applications they took from the course, and what our plan for the day was
8:35 – Discussed our tentative plan for the day with Todd Wells and planned to meet with him later in the day.
8 45 – Left for dig site 8 in Loco Hills to RTD's NDT analysis.
9:40 – Arrived at Dig site 8.
10:00 – Held site Tailgate meeting. Discussed PPE, surveying work area, and communication of work being performed.
- Loaded equipment into 4-wheeler.

10:15 – Transported equipment into dig site.
10.25 – Called control. Spoke with Doyle. Informed him working on line and hotwork to be performed
10:30 – RTD set up
10:40 – Checked atmosphere Began analysis.
11:30 – RTD done with anomaly analysis. Packed up equipment onto 4-wheeler, and re-set safety fence.
11.45 – Called control. Spoke with Doyle. Done for day
12:05 – RTD received information that anomaly would require a Clock Spring. RTD went back into site to measure anomaly for C/S.
12:20 – Done measuring for C/S.
12 25 – Left site 8 and went back to BP yd in Lovington.
1:00 – Arrived at BP yd.
1:50 – JR at BP found problem with one-call list
2 15 – Went to meet Paul Bernard and Todd Wells at dig site 11. Crew stayed at BP yard to work on trailer lights while Wade Johnson (BJB) and JR tried to rectify the situation pertaining to the one-calls
2:45 – Found compression sleeve from previous repair on 4" poly line at dig site 11. The sleeve was noticed b/c of a wet spot in soil that looked fresh
3 00 – Land owner (Roseanne Johnson) arrived on site Showed her site
3:15 – Informed Wade Johnson of compression sleeve on 4" poly line and wet soil present under it.
3:20 – Informed Bob Vanzant of apparent leak in compression sleeve. He agreed to contact Targa and inform them of possible leak
3:25 – Went to site 14.
4.00 – Showed RTD anomaly at site 14 to assess tomorrow
4:15 – Went back to BP yard.
4:40 – Arrived Crew unloaded sand blast trailer to trade out for a new trailer.
5:45 – Left yard for the day.

BP Inspector 

3/16/07

Excavating on dig site #11 for anomaly identified on ILI Tool run.

Struck 4" poly pipeline belonging to Targa.

Contact with Targa was difficult. Phone numbers led to several voice mails, and eventually to lease operator. Thomas Espanosa.

Line was isolated by Targa employees and repaired by Targa contract crews with the assistance of BJB Company.

3/17/07

Roll offs for contaminated soil delivered to locaction.

3/19/07

Todd Wells with CRA on location. Inspector met with Todd at location and also joined by Rosanne Johnson *(landowner)*. Observed that compression sleeve on poly pipe was leaking. This was the existing repair, and not the one installed as of our line strike.

ASSUMPTION: The Targa line was apparently originally a steel pipeline. Some mishap, well prior to our line strike, had apparently caused a leak at or near the point where it crossed BP's 10" line. The leak in the steel pipe was repaired by replacing the steel pipe with a section of poly pipe, installed by using "dresser" type, or compression type adapters at each end where the poly joined the steel. This adapter used for the original repair was the one that was leaking. Not the flange set used to make the repair from our line strike.

Contacted Targa and informed them of the leak found in the existing repair clamp. Notified Thomas Espanosa with Targa, who indicated that he would pass along the information. Conversation with other Targa personnel *(a call back from the contact with Thomas Espanosa and I don't remember the gentleman's name)* indicated that all their people were tied up on a large diameter line that was currently down, and that they would get the leak fixed when personnel became available.

3/22/07

Todd Wells on location and taking samples as contaminated soil is removed from ditch. Work stopped when ditch became too deep for rubber tired backhoe to reach bottom and break through rock barrier. Preliminary information from Todd Wells indicated that location was nearly clean in the area of the BP spill, but did need a little more in specific locations.

3/29/07

Dig Site #11 was noted as having "Targa's leak" repaired at some time between 3/22 and 3/29.

3/30/07

Sandblasted and RTD evaluated dig site #11. No other comments as to condition of site. Anomaly was prescribed to be cut out, and a pipe replacement done at this location.

4/10/07

Backhoe on site to excavate location in preparation for pipe replacement to be completed tomorrow. Pipe replacement would be done in close proximity to poly crossline.

While not stated in report, in preparing the area for the pipe replacement, the inspector had the operator backfill the area where the contaminated soil had been excavated. The hole was too deep to for the replacement work to be done properly/safety. This backfilling was limited to the immediate work area for the cutting and rewelding of the 10" pipeline. Todd Wells with CRA was on location on this date as well, and took soil samples. I'm not aware of whether Todd was aware of the backfilling that took place.

4/11/07

BP's 10" pipeline was shut down and the pipe replacements on Dig sites 11, 12, and 13 were completed.

4/20/07

Working on contaminated soil removal. Roll offs were full and work was stopped.

Additional contamination to "our" spill area seemed to be coming from Targa's old spill area due to rainwater in bellhole spreading the contamination. It seemed to be an endless battle without Targa cleaning up their area

APPENDIX D

SITE CHRONOLOGY

Site Chronology
BP Pipelines, N.A.
Saunders to Denton Mainline Release
Lea County, New Mexico

March 16, 2007	BJB crew and MBF inspector on location at dig site 11 to locate an anomaly in the BP pipeline. Targa polyethylene pipeline struck by hoe bucket. Notified Targa of the line strike. Free product contained in the original ditch. Targa arrived on location and shut down line flow. Vac truck used to remove the product out of the ditch. According to BP, the amount of condensate product released was less than 5 bbls and therefore not reported to the state. Targa made the line repair.
March 19, 2007	CRA meets with Jimmy Humble, Ryan Wooley MBF inspector and BJB crew at BP office in Lovington. Crew went to work on another site. CRA performs site inspection to document and photograph conditions. Notice wet soil and evidence of a separate leak around Targa pipeline approximately 20' north of new release site. Notify Ryan Wooley of the leak. He calls to notify Targa of the leak. Reissue the one call, no excavation activities today.
March 22, 2007	Meet on location with BJB crew and Ryan Wooley MBF inspector. The Targa pipeline is still leaking with wet soil surrounding the line approximately 20' north of the new line release. Ryan calls again to notify Targa of the line leak. Excavate the site down to 7' bgs below the location where the product was contained and encounter a hard layer. Attempt to excavate other areas around the pipeline and encountered the same rock. Unable to dig any deeper. Bottom sample PID > 2000 ppm. Excavate the site horizontally and collect sidewall samples.
April 10, 2007	On site with BJB crew and MBF inspector. Excavate site with hoe without teeth guard and attempt to dig through the hard soil. Unable to dig through the rock, chipping teeth off the hoe bucket. Collect south sidewall sample and bottom soil sample at 7' PID > 2000 ppm.
May 14, 2007	Site visit at request from Jim Lutter to check on current situation. The excavation and both line repairs still open. Fencing is surrounding the excavation. There are two empty roll-off boxes on location.
May 23, 2007	On location with Jim Lutter, John Evans with BJB to meet with landowners James and Rozanne Johnson to discuss the excavation and work scope to complete the clean up of the site. The excavation is partially filled in and the two roll-off boxes are full.
June 27, 2007	On location with Jim Homer MBF inspector, John Evans and crew with BJB and Bob Allen with SESI safety. Utilize the track excavator and rubber tire hammer hoe to break apart the rock in the bottom of the excavation. The excavated soils are white colored limestone with light brown staining in the areas of impact. Deepen and widen the excavation to delineate the impacted soil.
June 28, 2007	On site, continue to use the hammer hoe to excavate the southwest corner of the excavation. Broke through the hard rock layer to a layer of caliche soil that is easier to excavate. The soil throughout the rock layer was white colored caliche . Then we encountered black soil that was evidence of impacts not typical of a fresh condensate release. The black soil was different colored from the caliche that we were removing from the excavation. We called Jim Lutter to inform him of the change in soils. Per his instructions we excavated down the black layer of soil on all sides of the excavation and stopped at that depth. Collect confirmation sidewall samples with Rozanne Johnson and shut down.

Site Chronology
BP Pipelines, N.A.
Saunders to Denton Mainline Release
Lea County, New Mexico

June 29, 2007	Fluid Transport and Lea Land trucks hauling roll-off boxes of hydrocarbon-impacted soil to Lea Land Landfill for disposal.
July 2, 2007	On location to meet with Jim Lutter with BP, John Evans and crew with BJB, Don Embry and Alfredo Corral with Targa, Mark Larson with Larson and Associates, James and Rozanne Johnson. Perform a site walk through and explain the current activities to date. Excavate the northwest and southwest corners of the site to expose the black soil. Collect samples from the northwest and southwest corners of the excavation and split them with Mark Larson and Rozanne Johnson. Send samples to TraceAnalysis for laboratory analysis. Fluid Transport and Lea Land trucks hauling roll-off boxes of hydrocarbon-impacted soil to Lea Land Landfill for disposal.
July 3, 2007	Fluid Transport and Lea Land trucks hauling roll-off boxes of hydrocarbon-impacted soil. All the excavated soils sent to Lea Land Landfill for disposal.

STL

ANALYTICAL REPORT

Job Number: 560-5437-1

Job Description: SAUNDERS BP PIPELINE

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, TX 79701

Attention: Ms. Michelle Green

Julie Darrow
Project Mgmt. Assistant
jdarrow@stl-inc.com
07/24/2007

Project Manager: Julie Darrow

Organic Prep by Method 3550B for 8015B

Samples 560-5437-1 and 2 were extracted for DRO using EPA Method 3550B in batch #560- 13081(for Method 8015B in batch #560-13221). Due to an insufficient amount of sample received for analysis no matrix spike or matrix spike duplicate were analyzed, however, a LCS/LCSD were analyzed. The data are therefore reported.

GRO by Method 8015B

Samples 560-5437-1 and 2 were analyzed for GRO by EPA Method 8015B in batch #560-13132 and 560-13122. The percent recovery results for the matrix spike duplicates associated with samples 1 and 2 for GRO were outside the acceptance criteria. The method blank and LCS were within acceptable limits and the data are therefore reported. In addition, the percent recovery results for the surrogates associated with samples 1, 1 MS, 1 MSD, 2, 2 MS, and 2 MSD were outside the control limits for 4-bromofluorobenzene due to matrix interference. Therefore, the samples were not re-extracted or re-analyzed. The method blank and LCS were within acceptable limits and the data are therefore reported.

BTEX by Method 8020B

Sample 560-5437-1 was analyzed for BTEX by EPA Method 8021B in batch #560-13065. The percent recovery results for the surrogates associated with sample 1 were outside the control limits for 4-bromofluorobenzene and trifluorotoluene due to matrix interference. Therefore, the sample was not re-extracted or re-analyzed. The method blank and LCS were within acceptable limits and the data are therefore reported

General Information

It was noted by the analyst that for sample 2 GRO was detected however the BTEX only exhibited a small concentration of xylene The analyst suggest that matrix interference could be present or a sampling issue could be at fault since the analysis were performed from separate jars.

EXECUTIVE SUMMARY - Detections

Client: Larson & Associates, Inc. Job Number: 560-5437-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
560-5437-1	**01**				
GRO		3100	430	mg/Kg	8015B
Benzene		6.7	0.43	mg/Kg	8021B
Toluene		43	0.87	mg/Kg	8021B
Xylenes, Total		250	2.6	mg/Kg	8021B
C10-C28		1000	150	mg/Kg	8015B
Percent Moisture		7 0	0 010	%	PercentMoisture
Percent Solids		93	0.010	%	PercentMoisture
Soluble					
Chloride-S		6.6	5.0	mg/Kg	9056
560-5437-2	**02**				
GRO		17	1.3	mg/Kg	8015B
Xylenes, Total		0.021	0 015	mg/Kg	8021B
C10-C28		160	50	mg/Kg	8015B
Percent Moisture		23	0 010	%	PercentMoisture
Percent Solids		77	0.010	%	PercentMoisture
Soluble					
Chloride-S		16	5.0	mg/Kg	9056

METHOD SUMMARY

Client: Larson & Associates, Inc. Job Number: 560-5437-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	STL CC	SW846 8015B	
Purge and Trap for Solids	STL CC		SW846 5030B
Aromatic and Halogenated VOCs by Gas Chromatography using PID or ELCD	STL CC	SW846 8021B	
Purge and Trap for Solids	STL CC		SW846 5030B
Purge-and-Trap for Aqueous Samples/High	STL CC		SW846 5030B
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	STL CC	SW846 8015B	
Ultrasonic Extraction	STL CC		SW846 3550B
Anions by Ion Chromatography	STL CC	SW846 9056	
Deionized Water Leaching Procedure (Routine)	STL CC		ASTM NONE
Percent Moisture	STL CC	EPA PercentMoisture	

LAB REFERENCES:

STL CC = STL Corpus Christi

METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

EPA - US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: Larson & Associates, Inc. Job Number: 560-5437-1

Method	Analyst	Analyst ID
SW846 8015B	Gonzales, Roman J	RJG
SW846 8021B	Gonzales, Roman J	RJG
SW846 8021B	Haas, Richard	RH
SW846 8015B	Cady, Iryna M	IMC
SW846 9056	Alvarez, Tracy L	TLA
EPA PercentMoisture	Henny, April	AH

SAMPLE SUMMARY

Client: Larson & Associates, Inc. Job Number: 560-5437-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
560-5437-1	01	Solid	07/02/2007 0935	07/06/2007 1115
560-5437-2	02	Solid	07/02/2007 1000	07/06/2007 1115

SAMPLE RESULTS

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Client Sample ID: 01

Lab Sample ID: 560-5437-1
Client Matrix: Solid

Date Sampled: 07/02/2007 0935
Date Received. 07/06/2007 1115

8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Method 8015B
Preparation: 5030B
Dilution: 2000
Date Analyzed: 07/10/2007 1405
Date Prepared: 07/10/2007 1405

Analysis Batch: 560-13132

Instrument ID No Equipment Assigned to
Lab File ID: N/A
Initial Weight/Volume: 5.75 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
GRO		3100		140	430

Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene (Surr)	156	X	28.0 - 150 0

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Client Sample ID: 02

Lab Sample ID: 560-5437-2
Client Matrix: Solid

Date Sampled. 07/02/2007 1000
Date Received 07/06/2007 1115

8015B Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Method. 8015B
Preparation· 5030B
Dilution: 1 0
Date Analyzed: 07/09/2007 1336
Date Prepared: 07/09/2007 1336

Analysis Batch. 560-13122

Instrument ID: No Equipment Assigned to
Lab File ID. N/A
Initial Weight/Volume· 1.00 g
Final Weight/Volume· 5 mL
Injection Volume:
Column ID. PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
GRO		17		0.40	1.3

Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene (Surr)	305	X	28.0 - 150 0

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Client Sample ID: 01

Lab Sample ID: 560-5437-1
Client Matrix: Solid

Date Sampled: 07/02/2007 0935
Date Received: 07/06/2007 1115

8021B Aromatic and Halogenated VOCs by Gas Chromatography using PID or ELCD

Method: 8021B
Preparation: 5030B-Medium
Dilution: 1.0
Date Analyzed: 07/10/2007 1049
Date Prepared: 07/10/2007 0937

Analysis Batch: 560-13065
Prep Batch: 560-13064

Instrument ID. HP GC [Method 8021]
Lab File ID: 07100704.D
Initial Weight/Volume. 5.76 g
Final Weight/Volume: 10 mL
Injection Volume:
Column ID. PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
Benzene		6 7		0.042	0.43
Toluene		43		0 043	0.87
Ethylbenzene		0.042	U	0 042	0.43
Xylenes, Total		250		0.11	2 6

Surrogate	%Rec		Acceptance Limits
4-Bromofluorobenzene (Surr)	519	X	47 - 120
Trifluorotoluene (Surr)	3290	X	35 - 132

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Client Sample ID: 02

Lab Sample ID. 560-5437-2
Client Matrix: Solid

Date Sampled: 07/02/2007 1000
Date Received: 07/06/2007 1115

8021B Aromatic and Halogenated VOCs by Gas Chromatography using PID or ELCD

Method. 8021B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 07/13/2007 1529
Date Prepared: 07/13/2007 1529

Analysis Batch: 560-13177

Instrument ID. HP GC [Method 8021]
Lab File ID: 07130712.D
Initial Weight/Volume 5 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected. N	Result (mg/Kg)	Qualifier	MDL	MQL
Benzene		0 0019	U	0.0019	0.0050
Toluene		0 0021	U	0 0021	0.0050
Ethylbenzene		0.0022	U	0 0022	0 0050
Xylenes, Total		0.021		0.0067	0.015

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	108	51 - 127
Trifluorotoluene (Surr)	91	50 - 129

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Client Sample ID: 01

Lab Sample ID 560-5437-1
Client Matrix: Solid

Date Sampled: 07/02/2007 0935
Date Received: 07/06/2007 1115

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution. 3 0
Date Analyzed: 07/16/2007 1226
Date Prepared: 07/11/2007 1000

Analysis Batch. 560-13221
Prep Batch: 560-13081

Instrument ID: Hewlett Packard GC
Lab File ID: 07160731.D
Initial Weight/Volume: 30 g
Final Weight/Volume 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
C10-C28		1000		13	150

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	96	29 - 140

Client: Larson & Associates, Inc. Job Number: 560-5437-1

Client Sample ID: 02

Lab Sample ID: 560-5437-2
Client Matrix: Solid

Date Sampled. 07/02/2007 1000
Date Received: 07/06/2007 1115

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1 0
Date Analyzed: 07/16/2007 1234
Date Prepared 07/11/2007 1000

Analysis Batch: 560-13221
Prep Batch: 560-13081

Instrument ID: Hewlett Packard GC
Lab File ID: 07160732.D
Initial Weight/Volume. 30 g
Final Weight/Volume. 5 mL
Injection Volume
Column ID PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
C10-C28		160		4.2	50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	84	29 - 140

General Chemistry

Client Sample ID: 01

Lab Sample ID: 560-5437-1
Client Matrix Solid

Date Sampled: 07/02/2007 0935
Date Received 07/06/2007 1115

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chloride-S	6.6		mg/Kg	1.4	5.0	1 0	9056
	Anly Batch. 560-13205	Date Analyzed	07/13/2007 0911			DryWt Corrected. N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.0		%	0.010	0 010	1 0	PercentMoisture
	Anly Batch: 560-13013	Date Analyzed	07/09/2007 1605				
Percent Solids	93		%	0.010	0.010	1.0	PercentMoisture
	Anly Batch: 560-13013	Date Analyzed	07/09/2007 1605				

Client Sample ID: 02

Lab Sample ID: 560-5437-2
Client Matrix: Solid

Date Sampled: 07/02/2007 1000
Date Received. 07/06/2007 1115

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chloride-S	16		mg/Kg	1.4	5.0	1 0	9056
	Anly Batch: 560-13205	Date Analyzed	07/13/2007 0911			DryWt Corrected. N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	23		%	0 010	0.010	1.0	PercentMoisture
	Anly Batch: 560-13013	Date Analyzed	07/09/2007 1605				
Percent Solids	77		%	0.010	0.010	1.0	PercentMoisture
	Anly Batch 560-13013	Date Analyzed	07/09/2007 1605				

DATA REPORTING QUALIFIERS

Client: Larson & Associates, Inc. Job Number: 560-5437-1

Lab Section	Qualifier	Description
GC VOA		
	U	Indicates the analyte was analyzed for but not detected.
	F	MS or MSD exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	F	RPD of the MS and MSD exceeds the control limits
	X	Surrogate exceeds the control limits
GC Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
General Chemistry		
	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC VOA					
Prep Batch: 560-10178					
LCS 560-10178/1-AA	Lab Control Spike	T	Solid	5030B	
MB 560-10178/2-AA	Method Blank	T	Solid	5030B	
Prep Batch: 560-13064					
560-5437-1	01	T	Solid	5030B	
Analysis Batch:560-13065					
LCS 560-10178/1-AA	Lab Control Spike	T	Solid	8021B	560-10178
MB 560-10178/2-AA	Method Blank	T	Solid	8021B	560-10178
560-5437-1	01	T	Solid	8021B	560-13064
Analysis Batch:560-13122					
LCS 560-13122/1	Lab Control Spike	T	Solid	8015B	
MB 560-13122/2	Method Blank	T	Solid	8015B	
560-5437-2	02	T	Solid	8015B	
560-5437-2MS	Matrix Spike	T	Solid	8015B	
560-5437-2MSD	Matrix Spike Duplicate	T	Solid	8015B	
Analysis Batch:560-13132					
LCS 560-13132/1	Lab Control Spike	T	Solid	8015B	
MB 560-13132/2	Method Blank	T	Solid	8015B	
560-5437-1	01	T	Solid	8015B	
560-5437-1MS	Matrix Spike	T	Solid	8015B	
560-5437-1MSD	Matrix Spike Duplicate	T	Solid	8015B	
Analysis Batch:560-13177					
LCS 560-13177/1	Lab Control Spike	T	Solid	8021B	
MB 560-13177/2	Method Blank	T	Solid	8021B	
560-5437-2	02	T	Solid	8021B	

Report Basis
T = Total

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 560-13081					
LCS 560-13081/2-A	Lab Control Spike	T	Solid	3550B	
LCSD 560-13081/3-A	Lab Control Spike Duplicate	T	Solid	3550B	
MB 560-13081/1-A	Method Blank	T	Solid	3550B	
560-5437-1	01	T	Solid	3550B	
560-5437-2	02	T	Solid	3550B	
Analysis Batch:560-13221					
LCS 560-13081/2-A	Lab Control Spike	T	Solid	8015B	560-13081
LCSD 560-13081/3-A	Lab Control Spike Duplicate	T	Solid	8015B	560-13081
MB 560-13081/1-A	Method Blank	T	Solid	8015B	560-13081
560-5437-1	01	T	Solid	8015B	560-13081
560-5437-2	02	T	Solid	8015B	560-13081

Report Basis
T = Total

General Chemistry					
Analysis Batch:560-13013					
560-5437-1	01	T	Solid	PercentMoisture	
560-5437-2	02	T	Solid	PercentMoisture	
Prep Batch: 560-13028					
LCS 560-13028/30-A	Lab Control Spike	S	Solid	NONE	
MB 560-13028/29-A	Method Blank	S	Solid	NONE	
560-5437-1	01	S	Solid	NONE	
560-5437-2	02	S	Solid	NONE	
560-5437-2MS	Matrix Spike	S	Solid	NONE	
560-5437-2MSD	Matrix Spike Duplicate	S	Solid	NONE	
Analysis Batch:560-13205					
LCS 560-13028/30-A	Lab Control Spike	S	Solid	9056	
MB 560-13028/29-A	Method Blank	S	Solid	9056	
560-5437-1	01	S	Solid	9056	
560-5437-2	02	S	Solid	9056	
560-5437-2MS	Matrix Spike	S	Solid	9056	
560-5437-2MSD	Matrix Spike Duplicate	S	Solid	9056	

Report Basis
S = Soluble
T = Total

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Method Blank - Batch: 560-13122

Method: 8015B
Preparation: 5030B

Lab Sample ID: MB 560-13122/2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 07/09/2007 1049
Date Prepared: 07/09/2007 1049

Analysis Batch: 560-13122
Prep Batch: N/A
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
GRO	0.080	U	0.080	0.25

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	103	28.0 - 150.0

Lab Control Spike - Batch: 560-13122

Method: 8015B
Preparation: 5030B

Lab Sample ID: LCS 560-13122/1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 07/09/2007 1011
Date Prepared: 07/09/2007 1011

Analysis Batch: 560-13122
Prep Batch: N/A
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
GRO	1.00	1.08	108	60.0 - 140.0	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	108	28.0 - 150.0

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 560-13122

Method: 8015B
Preparation: 5030B

MS Lab Sample ID:	560-5437-2	Analysis Batch: 560-13122	Instrument ID: No Equipment Assigned
Client Matrix:	Solid	Prep Batch: N/A	Lab File ID: N/A
Dilution.	1.0		Initial Weight/Volume: 1.00 g
Date Analyzed:	07/09/2007 1432		Final Weight/Volume. 5 mL
Date Prepared:	07/09/2007 1432		Injection Volume:
			Column ID: PRIMARY

MSD Lab Sample ID.	560-5437-2	Analysis Batch: 560-13122	Instrument ID. No Equipment Assigned
Client Matrix.	Solid	Prep Batch: N/A	Lab File ID: N/A
Dilution	1 0		Initial Weight/Volume: 1.00 g
Date Analyzed:	07/09/2007 1501		Final Weight/Volume 5 mL
Date Prepared	07/09/2007 1501		Injection Volume:
			Column ID: PRIMARY

Analyte	% Rec. MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
GRO	80	353	60.0 - 140 0	48.4	30.0		F

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
4-Bromofluorobenzene (Surr)	331	X	410	X	28.0 - 150.0

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 560-13122

Method: 8015B
Preparation: 5030B

MS Lab Sample ID:	560-5437-2	Units. mg/Kg	MSD Lab Sample ID: 560-5437-2
Client Matrix:	Solid		Client Matrix: Solid
Dilution:	1.0		Dilution: 1.0
Date Analyzed:	07/09/2007 1432		Date Analyzed: 07/09/2007 1501
Date Prepared:	07/09/2007 1432		Date Prepared: 07/09/2007 1501

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual	
GRO	17	5 00	5 00	21 4	35 0	F

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Method Blank - Batch: 560-13132

Method: 8015B
Preparation: 5030B

Lab Sample ID. MB 560-13132/2
Client Matrix. Solid
Dilution· 1 0
Date Analyzed. 07/10/2007 1130
Date Prepared· 07/10/2007 1130

Analysis Batch· 560-13132
Prep Batch. N/A
Units mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID· N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
GRO	0.080	U	0.080	0.25

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	102	28 0 - 150 0

Lab Control Spike - Batch: 560-13132

Method: 8015B
Preparation: 5030B

Lab Sample ID. LCS 560-13132/1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 07/10/2007 1103
Date Prepared· 07/10/2007 1103

Analysis Batch· 560-13132
Prep Batch· N/A
Units: mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume. 5 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
GRO	0 500	0 551	110	60.0 - 140.0	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	109	28 0 - 150.0

Calculations are performed before rounding to avoid round-off errors in calculated results

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 560-13132

Method: 8015B
Preparation: 5030B

MS Lab Sample ID.	560-5437-1	Analysis Batch: 560-13132	Instrument ID: No Equipment Assigned
Client Matrix:	Solid	Prep Batch. N/A	Lab File ID: N/A
Dilution:	2000		Initial Weight/Volume: 5.75 g
Date Analyzed	07/10/2007 1500		Final Weight/Volume: 5 mL
Date Prepared.	07/10/2007 1500		Injection Volume:
			Column ID. PRIMARY
MSD Lab Sample ID.	560-5437-1	Analysis Batch: 560-13132	Instrument ID: No Equipment Assigned
Client Matrix:	Solid	Prep Batch: N/A	Lab File ID: N/A
Dilution:	2000		Initial Weight/Volume: 5 75 g
Date Analyzed:	07/10/2007 1528		Final Weight/Volume: 5 mL
Date Prepared:	07/10/2007 1528		Injection Volume.
			Column ID. PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
GRO	63	58	60.0 - 140.0	1	30.0	4	4

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
4-Bromofluorobenzene (Surr)	162	X	155	X	28.0 - 150.0

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 560-13132

Method: 8015B
Preparation: 5030B

MS Lab Sample ID:	560-5437-1	Units: mg/Kg	MSD Lab Sample ID. 560-5437-1
Client Matrix:	Solid		Client Matrix: Solid
Dilution:	2000		Dilution: 2000
Date Analyzed.	07/10/2007 1500		Date Analyzed: 07/10/2007 1528
Date Prepared:	07/10/2007 1500		Date Prepared: 07/10/2007 1528

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
GRO	3100	696	696	3500	4	3460	4

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Method Blank - Batch: 560-10178

Method: 8021B
Preparation: 5030B

Lab Sample ID: MB 560-10178/2-AA
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 07/10/2007 1015
Date Prepared: 04/03/2007 0930

Analysis Batch: 560-13065
Prep Batch. 560-10178
Units: mg/Kg

Instrument ID. HP GC [Method 8021]
Lab File ID: 07100703.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL
Injection Volume.
Column ID PRIMARY

Analyte	Result	Qual	MDL	RL
Benzene	0.19	U	0.19	0 50
Toluene	0 21	U	0.21	0.50
Ethylbenzene	0.22	U	0.22	0.50
Xylenes, Total	0.67	U	0.67	1.5

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	102	51 - 127
Trifluorotoluene (Surr)	96	50 - 129

Lab Control Spike - Batch: 560-10178

Method: 8021B
Preparation: 5030B

Lab Sample ID: LCS 560-10178/1-AA
Client Matrix: Solid
Dilution: 1 0
Date Analyzed: 07/10/2007 0947
Date Prepared: 04/03/2007 0930

Analysis Batch: 560-13065
Prep Batch. 560-10178
Units: mg/Kg

Instrument ID: HP GC [Method 8021]
Lab File ID: 07100702.D
Initial Weight/Volume 5 g
Final Weight/Volume: 10 mL
Injection Volume:
Column ID PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	1.00	0 970	97	76 - 128	
Toluene	1.00	1 07	107	71 - 124	
Ethylbenzene	1.00	1.14	114	73 - 122	
Xylenes, Total	2.00	2.39	119	73 - 133	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	112	51 - 127
Trifluorotoluene (Surr)	103	50 - 129

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Method Blank - Batch: 560-13177

Method: 8021B
Preparation: 5030B

Lab Sample ID: MB 560-13177/2
Client Matrix: Solid
Dilution: 1 0
Date Analyzed: 07/13/2007 1112
Date Prepared: 07/13/2007 1112

Analysis Batch: 560-13177
Prep Batch: N/A
Units: mg/Kg

Instrument ID: HP GC [Method 8021]
Lab File ID: 07130703 D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID PRIMARY

Analyte	Result	Qual	MDL	MQL
Benzene	0 0019	U	0.0019	0.0050
Toluene	0.0021	U	0.0021	0.0050
Ethylbenzene	0.0022	U	0.0022	0.0050
Xylenes, Total	0.0067	U	0.0067	0.015

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	76	51 - 127
Trifluorotoluene (Surr)	72	50 - 129

Lab Control Spike - Batch: 560-13177

Method: 8021B
Preparation: 5030B

Lab Sample ID: LCS 560-13177/1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 07/13/2007 1044
Date Prepared: 07/13/2007 1044

Analysis Batch: 560-13177
Prep Batch: N/A
Units: mg/Kg

Instrument ID: HP GC [Method 8021]
Lab File ID: 07130702.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	0.0200	0.0185	92	76 - 128	
Toluene	0.0200	0.0191	95	71 - 124	
Ethylbenzene	0.0200	0.0195	98	73 - 122	
Xylenes, Total	0.0400	0.0415	104	73 - 133	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	89	51 - 127
Trifluorotoluene (Surr)	80	50 - 129

Calculations are performed before rounding to avoid round-off errors in calculated results

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Method Blank - Batch: 560-13081

Method: 8015B
Preparation: 3550B

Lab Sample ID: MB 560-13081/1-A
Client Matrix: Solid
Dilution: 1 0
Date Analyzed: 07/16/2007 1200
Date Prepared: 07/11/2007 1000

Analysis Batch: 560-13221
Prep Batch: 560-13081
Units: mg/Kg

Instrument ID: Hewlett Packard GC [Methoc
Lab File ID 07160728.D
Initial Weight/Volume: 30 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
C10-C28	4 2	U	4.2	50

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	89	29 - 140

Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 560-13081

Method: 8015B
Preparation: 3550B

LCS Lab Sample ID: LCS 560-13081/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 07/16/2007 1209
Date Prepared: 07/11/2007 1000

Analysis Batch: 560-13221
Prep Batch: 560-13081
Units: mg/Kg

Instrument ID: Hewlett Packard GC
Lab File ID. 07160729 D
Initial Weight/Volume. 30 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 560-13081/3-A
Client Matrix: Solid
Dilution: 1 0
Date Analyzed: 07/16/2007 1217
Date Prepared: 07/11/2007 1000

Analysis Batch. 560-13221
Prep Batch: 560-13081
Units mg/Kg

Instrument ID: Hewlett Packard GC
Lab File ID: 07160730.D
Initial Weight/Volume: 30 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qua
C10-C28	98	96	38 - 131	2.01	30.00		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
o-Terphenyl	92	86	29 - 140

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 560-13081

Method: 8015B
Preparation: 3550B

LCS Lab Sample ID:	LCS 560-13081/2-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 560-13081/3-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Date Analyzed:	07/16/2007 1209			Date Analyzed:	07/16/2007 1217
Date Prepared:	07/11/2007 1000			Date Prepared:	07/11/2007 1000

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
C10-C28	167	167	164	161

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Larson & Associates, Inc.

Job Number. 560-5437-1

Method Blank - Batch: 560-13205

Method: 9056
Preparation: N/A

Lab Sample ID: MB 560-13028/29-A
Client Matrix: Solid
Dilution 1.0
Date Analyzed: 07/13/2007 0911
Date Prepared: N/A
Date Leached 07/09/2007 1600

Analysis Batch. 560-13205
Prep Batch: N/A
Units. mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Chloride-S	0.14	U	0.14	0.50

Lab Control Spike - Batch: 560-13205

Method: 9056
Preparation: N/A

Lab Sample ID. LCS 560-13028/30-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 07/13/2007 0911
Date Prepared. N/A
Date Leached: 07/09/2007 1600

Analysis Batch. 560-13205
Prep Batch: N/A
Units mg/Kg

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume. 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-S	10.0	9.2	92	70 - 130	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 560-13205

Method: 9056
Preparation: N/A

MS Lab Sample ID: 560-5437-2
Client Matrix Solid
Dilution: 1.0
Date Analyzed. 07/13/2007 0911
Date Prepared N/A
Date Leached: 07/09/2007 1600

Analysis Batch: 560-13205
Prep Batch N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume 5 mL

MSD Lab Sample ID: 560-5437-2
Client Matrix Solid
Dilution: 1 0
Date Analyzed: 07/13/2007 0911
Date Prepared. N/A
Date Leached. 07/09/2007 1600

Analysis Batch: 560-13205
Prep Batch: N/A

Instrument ID. No Equipment Assigned
Lab File ID. N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Chloride-S	87	89	70 - 130	1	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 560-13205

Method: 9056
Preparation: N/A

MS Lab Sample ID:	560-5437-2	Units: mg/Kg	MSD Lab Sample ID:	560-5437-2	
Client Matrix	Solid		Client Matrix.	Solid	
Dilution:	1 0		Dilution:	1 0	
Date Analyzed.	07/13/2007 0911		Date Analyzed	07/13/2007 0911	
Date Prepared.	N/A		Date Prepared.	N/A	
Date Leached.	07/09/2007 1600		Date Leached.	07/09/2007 1600	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Chloride-S	16	100	100	100	100

Calculations are performed before rounding to avoid round-off errors in calculated results

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Laboratory Chronicle

Client Samples:

Lab ID: 560-5437-1 **Client ID: 01**

Sample Date/Time: 07/02/2007 0935 Received Date/Time: 07/06/2007 1115

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A-PercentMoisture	560-5437-A-1	1	560-13013		07/09/2007 1605	1.0	STL CC	AH
P-5030B	560-5437-A-1	1		560-13064	07/10/2007 0937	1.0	STL CC	RJG
A-8021B	560-5437-A-1-B	1	560-13065	560-13064	07/10/2007 1049	1.0	STL CC	RJG
P-3550B	560-5437-A-1	1		560-13081	07/11/2007 1000	3 0	STL CC	IMC
A-8015B	560-5437-A-1-C	1	560-13221	560-13081	07/16/2007 1226	3.0	STL CC	IMC
A-8015B	560-5437-A-1	1	560-13132		07/10/2007 1405	2,000	STL CC	RJG
P-5030B		1			07/10/2007 1405	2,000	STL CC	RJG
A-9056	560-5437-A-1-A +S	1	560-13205		07/13/2007 0911	1.0	STL CC	TLA

Lab ID: 560-5437-1MS **Client ID: 01**

Sample Date/Time: 07/02/2007 0935 Received Date/Time: 07/06/2007 1115

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A-8015B	560-5437-A-1 MS	1	560-13132		07/10/2007 1500	2,000	STL CC	RJG
P-5030B		1			07/10/2007 1500	2,000	STL CC	RJG

Lab ID: 560-5437-1MSD **Client ID: 01**

Sample Date/Time: 07/02/2007 0935 Received Date/Time: 07/06/2007 1115

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A-8015B	560-5437-A-1 MSD	1	560-13132		07/10/2007 1528	2,000	STL CC	RJG
P-5030B		1			07/10/2007 1528	2,000	STL CC	RJG

Lab ID: 560-5437-2 **Client ID: 02**

Sample Date/Time: 07/02/2007 1000 Received Date/Time: 07/06/2007 1115

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A-PercentMoisture	560-5437-A-2	1	560-13013		07/09/2007 1605	1 0	STL CC	AH
P-3550B	560-5437-A-2	1		560-13081	07/11/2007 1000	1.0	STL CC	IMC
A-8015B	560-5437-A-2-B	1	560-13221	560-13081	07/16/2007 1234	1.0	STL CC	IMC
A-8015B	560-5437-A-2	1	560-13122		07/09/2007 1336	1.0	STL CC	RJG
P-5030B		1			07/09/2007 1336	1.0	STL CC	RJG
A-8021B	560-5437-A-2	1	560-13177		07/13/2007 1529	1 0	STL CC	RH
P-5030B		1			07/13/2007 1529	1.0	STL CC	RH
A-9056	560-5437-A-2-A +S	1	560-13205		07/13/2007 0911	1 0	STL CC	TLA

A = Analytical Method P = Prep Method

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Laboratory Chronicle

Client Samples:

Lab ID: **560-5437-2MS** **Client ID:** **02**

Sample Date/Time: 07/02/2007 1000 Received Date/Time: 07/06/2007 1115

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A-8015B	560-5437-A-2 MS	1	560-13122		07/09/2007 1432	1.0	STL CC	RJG
P-5030B		1			07/09/2007 1432	1.0	STL CC	RJG
A-9056	560-5437-A-2-C MS	1	560-13205		07/13/2007 0911	1.0	STL CC	TLA

Lab ID: **560-5437-2MSD** **Client ID:** **02**

Sample Date/Time: 07/02/2007 1000 Received Date/Time: 07/06/2007 1115

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A-8015B	560-5437-A-2 MSD	1	560-13122		07/09/2007 1501	1.0	STL CC	RJG
P-5030B		1			07/09/2007 1501	1.0	STL CC	RJG
A-9056	560-5437-A-2-D	1	560-13205		07/13/2007 0911	1.0	STL CC	TLA

Lab ID: **MB** **Client ID:** **MB**

Sample Date/Time: NA Received Date/Time NA

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P-5030B		1		560-10178	04/03/2007 0930	1 0	STL CC	RJG
A-8021B		1	560-13065	560-10178	07/10/2007 1015	1.0	STL CC	RJG
P-3550B		1		560-13081	07/11/2007 1000	1.0	STL CC	IMC
A-8015B		1	560-13221	560-13081	07/16/2007 1200	1.0	STL CC	IMC
A-8015B		1	560-13122		07/09/2007 1049	1 0	STL CC	RJG
P-5030B		1			07/09/2007 1049	1 0	STL CC	RJG
A-8015B		1	560-13132		07/10/2007 1130	1 0	STL CC	RJG
P-5030B		1			07/10/2007 1130	1.0	STL CC	RJG
A-8021B		1	560-13177		07/13/2007 1112	1.0	STL CC	RH
P-5030B		1			07/13/2007 1112	1.0	STL CC	RH
A-9056		1	560-13205		07/13/2007 0911	1.0	STL CC	TLA

A = Analytical Method P = Prep Method

Client: Larson & Associates, Inc.

Job Number: 560-5437-1

Laboratory Chronicle

Client Samples:

Lab ID: LCS **Client ID:** LCS

Sample Date/Time: NA Received Date/Time: NA

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P-5030B		1		560-10178	04/03/2007 0930	1 0	STL CC	RJG
A-8021B		1	560-13065	560-10178	07/10/2007 0947	1 0	STL CC	RJG
P-3550B		1		560-13081	07/11/2007 1000	1.0	STL CC	IMC
A-8015B		1	560-13221	560-13081	07/16/2007 1209	1.0	STL CC	IMC
A-8015B		1	560-13122		07/09/2007 1011	1.0	STL CC	RJG
P-5030B		1			07/09/2007 1011	1.0	STL CC	RJG
A-8015B		1	560-13132		07/10/2007 1103	1.0	STL CC	RJG
P-5030B		1			07/10/2007 1103	1 0	STL CC	RJG
A-8021B		1	560-13177		07/13/2007 1044	1 0	STL CC	RH
P-5030B		1			07/13/2007 1044	1.0	STL CC	RH
A-9056		1	560-13205		07/13/2007 0911	1 0	STL CC	TLA

Lab ID: LCSD **Client ID:** LCSD

Sample Date/Time: NA Received Date/Time. NA

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P-3550B		1		560-13081	07/11/2007 1000	1 0	STL CC	IMC
A-8015B		1	560-13221	560-13081	07/16/2007 1217	1 0	STL CC	IMC

A = Analytical Method P = Prep Method

5437

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc. Environmental Consultants
Fax: 432-687-0456
432-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME:	SITE MANAGER:
Targa	Mark Larson
PROJECT NO.:	PROJECT NAME:
7-0122	Saunders/BP Pipeline
PAGE 1 OF 1	LAB. PO #

PARAMETERS/METHOD NUMBER

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	BTEX (8021B)	TPH (8015M)	Chlorides (300)	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
7/2/07	0935		✓		01	1	✓	✓	✓		
7/2/07	10:00		✓		02	2	✓	✓	✓		TPH- DRO + GRO
											report to be in mg/kg

SAMPLED BY: (Signature)	DATE: 7/2/07 TIME: 10:00	RELINQUISHED BY: (Signature)	DATE: 7/5/07 TIME: 11:30
RECEIVED BY: (Signature) LSO	DATE: TIME:		
RELINQUISHED BY: (Signature) LoneStar	DATE: TIME:	RECEIVED BY: (Signature)	DATE: TIME:

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #:
HAND DELIVERED UPS OTHER: LoneStar

COMMENTS:

TURNAROUND TIME NEEDED: 7 day TAT

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

RECEIVING LABORATORY:
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: 07/06/07 TIME: 1115

SAMPLE CONDITION WHEN RECEIVED: 3.9c iR1

LA CONTACT PERSON: Michelle Green

SAMPLE TYPE: Soil

LoneStar-23348693

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Larson & Associates, Inc. Job Number: 560-5437-1

Login Number: 5437

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable	True	
Cooler Temperature is recorded.	True	3.9C IR 1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing.	True	

DHL ANALYTICAL

July 31, 2007

Michelle Green
Larson & Associates
507 N. Marienfeld #202
Midland, TX 79701

TEL: (432) 687-0901
FAX: (432) 687-0456

Order No: 0707139

RE: BP-Saunders Gathering

Dear Michelle Green:

DHL Analytical received 3 sample(s) on 7/24/2007 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
Lab Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-06-TX

ACCREDITED IN ACCORDANCE WITH nelac

Table of Contents

0707134

CHAIN—OF—CUSTODY RECORD

Larson & Associates, Inc. Environmental Consultants
Fax 432-687-0456
432-687-0901
507 N Marienfeld, Ste 202 • Midland, TX 79701

CLIENT NAME: Targa
SITE MANAGER: Mark Larson
PROJECT NO: 7-0122
PROJECT NAME: BP-Saunders Gathering
PAGE 1 OF 1
LAB PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER: BTEX 8021	DRO/ORO 8015mod	LAB. I.D NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
7/23	928		X		under sleeve ~2'	1	X	X		
	943		X		11.5' ledge	1	X	X		
	1015		X		under sleeve	1	X	X		

SAMPLED BY: (Signature) — DATE: 7/23/07 TIME: 432
RELINQUISHED BY: (Signature) — DATE: 7/23/07 TIME: 432
RECEIVED BY: (Signature) LSO — DATE: TIME:
RELINQUISHED BY: (Signature) LSO — DATE: 7-24-7 TIME: 900
RECEIVED BY: (Signature) — DATE: 7-24-7 TIME: 900

SAMPLE SHIPPED BY (Circle)
FEDEX BUS AIRBILL # 23399796
HAND DELIVERED UPS OTHER LSO

COMMENTS:

TURNAROUND TIME NEEDED

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

RECEIVING LABORATORY: DHL Analytical
ADDRESS: 2300 Double Creek Dr.
CITY: Round Rock STATE: TX ZIP 78664
CONTACT: PHONE
RECEIVED BY: (Signature)
DATE: 7-24-07 TIME: 900

SAMPLE CONDITION WHEN RECEIVED: 4.9°C #57 Custody seal intact

LA CONTACT PERSON: Michelle Green

SAMPLE TYPE: NM OCD

Lone Star Overnight

Airbill No. Z3399796

Lone Star Overnight
800 800.8984
www.lso.com

17

To: SAMPLE RECEIVING
DHL ANALYTICAL
2300 DOUBLE CREEK DRIVE
ROUND ROCK, TX 78664
(512) 388 - 8222

From: MICHELLE GREEN
LARSON & ASSOCIATES, INC.
507 N MARIENFELD
SUITE 202
MIDLAND, TX 79701
(432) 687 - 0901

Service Type: By 10:30am
1D00V

AUS

By 10:30am

QuickCode DHL
Date Printed: 7/23/2007

CUSTODY SEAL
DATE 7/23/07
SIGNATURE

QEC
Quality Environmental Containers
800-255-3900 · 304-255-3900

DHL Analytical

Sample Receipt Checklist

Client Name Larson & Associates | Date Received: 7/24/2007

Work Order Number 0707139 | Received by: DU

Checklist completed by: _____ 7.24.07 (Signature / Date) | Reviewed by DL (Initials) 7/24/07 (Date)

Carrier name: LoneStar

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Adjusted? _____ Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

DHL Analytical Date: 07/31/07

CLIENT:	Larson & Associates	**CASE NARRATIVE**
Project:	BP-Saunders Gathering	
Lab Order:	0707139	

Samples were analyzed using the methods outlined in the following references:

Method M8015V - GRO Analysis
Method M8015D - DRO+ORO Analysis
Method SW8021B - Volatile Organics by GC
Method D2216 - Percent Moisture (Not NELAC Certified)

LOG IN

Samples were received and log-in performed on 7/24/07. A total of 3 samples were received. The samples arrived in good condition and were properly packaged.

GRO ANALYSIS

For GRO analysis, the recoveries of the matrix spike (0707129-25B MS) and matrix spike duplicate (0707129-25B MSD) were below control limits. In addition, the RPD of the matrix spike duplicate was above control limits. These are flagged accordingly in the QC summary report. The reference sample selected for the matrix spike and matrix spike duplicate was not from this work order. The LCS was within control limits. No further corrective actions were taken.

VOLATILE ORGANICS BY GC

For Volatile Organics by GC analysis, the recovery of the matrix spike duplicate (0707139-03A MSD) was slightly below control limits for Toluene. This is flagged accordingly in the QC summary report. The reference sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for this compound. No further corrective actions were taken and no sample results were adversely affected.

DHL Analytical

Date: 07/31/07

CLIENT: Larson & Associates
Project: BP-Saunders Gathering
Lab Order: 0707139

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recv'd
0707139-01	Under Sleeve ~2'		07/23/07 09:28 AM	07/24/07
0707139-02	11.5' Ledge		07/23/07 09:43 AM	07/24/07
0707139-03	Under Sleeve		07/23/07 10:15 AM	07/24/07

DHL Analytical

Date: 07/31/07

CLIENT: Larson & Associates
Project: BP-Saunders Gathering
Lab Order: 0707139

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
0707139-01A	Under Sleeve ~2'	07/23/07 09 28 AM	Soil	SW3550B	Soil Prep Sonication DRO	07/25/07 09 00 AM	26639
	Under Sleeve ~2'	07/23/07 09 28 AM	Soil	SW5030B	Purge and Trap Soils GC- Gas	07/24/07 11 09 AM	26619
	Under Sleeve ~2'	07/23/07 09 28 AM	Soil	SW5030B	Purge and Trap Soils GC	07/25/07 08 52 AM	26637
	Under Sleeve ~2'	07/23/07 09 28 AM	Soil	D2216	Percent Moisture	07/27/07 02 15 PM	PMOIST_070730A
0707139-02A	11 5' Ledge	07/23/07 09 43 AM	Soil	SW3550B	Soil Prep Sonication DRO	07/25/07 09 00 AM	26639
	11 5' Ledge	07/23/07 09 43 AM	Soil	SW3550B	Soil Prep Sonication DRO	07/25/07 09 00 AM	26639
	11 5' Ledge	07/23/07 09 43 AM	Soil	SW3550B	Soil Prep Sonication DRO	07/25/07 09 00 AM	26639
	11 5' Ledge	07/23/07 09 43 AM	Soil	SW5030B	Purge and Trap Soils GC- Gas	07/24/07 11 09 AM	26619
	11 5' Ledge	07/23/07 09 43 AM	Soil	SW5030B	Purge and Trap Soils GC	07/25/07 08 52 AM	26637
	11 5' Ledge	07/23/07 09 43 AM	Soil	D2216	Percent Moisture	07/27/07 02 15 PM	PMOIST_070730A
0707139-03A	Under Sleeve	07/23/07 10 15 AM	Soil	SW3550B	Soil Prep Sonication DRO	07/25/07 09 00 AM	26639
	Under Sleeve	07/23/07 10 15 AM	Soil	SW5030B	Purge and Trap Soils GC- Gas	07/24/07 11 09 AM	26619
	Under Sleeve	07/23/07 10 15 AM	Soil	SW5030B	Purge and Trap Soils GC	07/25/07 08 52 AM	26637
	Under Sleeve	07/23/07 10 15 AM	Soil	D2216	Percent Moisture	07/30/07 11 55 AM	PMOIST_070730B

DHL Analytical

Date: 07/31/07

CLIENT: Larson & Associates
Project: BP-Saunders Gathering
Lab Order: 0707139

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
0707139-01A	Under Sleeve ~2'	Soil	M8015V	Modified 8015 Gasoline (GRO)	26619	1	07/25/07 12 36 AM	GC4_070724A
	Under Sleeve ~2'	Soil	D2216	Percent Moisture	PMOIST_070730A	1	07/30/07 09 05 AM	PMOIST_070730A
	Under Sleeve ~2'	Soil	M8015D	TPH by GC - Soil DRO+ORO	26639	1	07/25/07 08 28 PM	GC15_070725A
	Under Sleeve ~2'	Soil	SW8021B	Volatile Organics by GC	26637	1	07/25/07 12 54 PM	GC4_070725A
0707139-02A	11 5' Ledge	Soil	M8015V	Modified 8015 Gasoline (GRO)	26619	1	07/25/07 01 01 AM	GC4_070724A
	11 5' Ledge	Soil	D2216	Percent Moisture	PMOIST_070730A	1	07/30/07 09 05 AM	PMOIST_070730A
	11 5' Ledge	Soil	M8015D	TPH by GC - Soil DRO+ORO	26639	20	07/25/07 09 21 PM	GC15_070725A
	11 5' Ledge	Soil	M8015D	TPH by GC - Soil DRO+ORO	26639	5	07/25/07 09 46 PM	GC15_070725A
	11 5' Ledge	Soil	M8015D	TPH by GC - Soil DRO+ORO	26639	1	07/25/07 10 13 PM	GC15_070725A
	11 5' Ledge	Soil	SW8021B	Volatile Organics by GC	26637	1	07/25/07 01 21 PM	GC4_070725A
0707139-03A	Under Sleeve	Soil	M8015V	Modified 8015 Gasoline (GRO)	26619	1	07/25/07 01 28 AM	GC4_070724A
	Under Sleeve	Soil	D2216	Percent Moisture	PMOIST_070730B	1	07/30/07 04 00 PM	PMOIST_070730B
	Under Sleeve	Soil	M8015D	TPH by GC - Soil DRO+ORO	26639	1	07/25/07 08 54 PM	GC15_070725A
	Under Sleeve	Soil	SW8021B	Volatile Organics by GC	26637	1	07/25/07 01 48 PM	GC4_070725A

DHL Analytical

Date: 07/31/07

CLIENT:	Larson & Associates	**Client Sample ID:**	Under Sleeve ~2'
Project:	BP-Saunders Gathering	**Lab ID:**	0707139-01
Project No:	7-0122	**Collection Date:**	07/23/07 09:28 AM
Lab Order:	0707139	**Matrix:**	Soil

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH by GC - Soil DRO+ORO		**M8015D**					**Analyst: DO**
TPH-DRO C10-C28	ND	3 14	10 5		mg/Kg-dry	1	07/25/07 08 28 PM
TPH-ORO >C28-C35	ND	3 14	10 5		mg/Kg-dry	1	07/25/07 08 28 PM
Surr o-Terphenyl	73 1	0	47 - 142		%REC	1	07/25/07 08 28 PM
Surr Octacosane	83 8	0	25 - 162		%REC	1	07/25/07 08 28 PM
Modified 8015 Gasoline (GRO)		**M8015V**					**Analyst: DEW**
Gasoline Range Organics	ND	0 0695	0 232		mg/Kg-dry	1	07/25/07 12 36 AM
Surr Tetrachlorethene	99 0	0	70 - 134		%REC	1	07/25/07 12 36 AM
Volatile Organics by GC		**SW8021B**					**Analyst: DEW**
Benzene	ND	0 00300	0 00499		mg/Kg-dry	1	07/25/07 12 54 PM
Ethylbenzene	ND	0 00499	0 0150		mg/Kg-dry	1	07/25/07 12 54 PM
Toluene	ND	0 00499	0 0150		mg/Kg-dry	1	07/25/07 12 54 PM
Xylenes, Total	ND	0 00499	0 0150		mg/Kg-dry	1	07/25/07 12 54 PM
Surr Tetrachloroethene	92 0	0	79 - 135		%REC	1	07/25/07 12 54 PM
Percent Moisture		**D2216**					**Analyst: TPO**
Percent Moisture	13 7	0	0	N	WT%	1	07/30/07 09 05 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	J	Analyte detected between MDL and RL
B	Analyte detected in the associated Method Blank	MDL	Method Detection Limit
C	Sample Result or QC discussed in the Case Narrative	N	Parameter not NELAC certified
DF	Dilution Factor	ND	Not Detected at the Method Detection Limit
E	TPH pattern not Gas or Diesel Range Pattern	RL	Reporting Limit
		S	Spike Recovery outside control limits

CLIENT:	Larson & Associates	**Client Sample ID:**	11.5' Ledge
Project:	BP-Saunders Gathering	**Lab ID:**	0707139-02
Project No:	7-0122	**Collection Date:**	07/23/07 09:43 AM
Lab Order:	0707139	**Matrix:**	Soil

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH by GC - Soil DRO+ORO		**M8015D**					**Analyst: DO**
TPH-DRO C10-C28	1000	3 19	10 6		mg/Kg-dry	1	07/25/07 10 13 PM
TPH-ORO >C28-C35	180	3 19	10 6		mg/Kg-dry	1	07/25/07 10 13 PM
Surr o-Terphenyl	118	0	47 - 142		%REC	1	07/25/07 10 13 PM
Surr Octacosane	154	0	25 - 162		%REC	1	07/25/07 10 13 PM
Modified 8015 Gasoline (GRO)		**M8015V**					**Analyst: DEW**
Gasoline Range Organics	0 545	0 0668	0 223		mg/Kg-dry	1	07/25/07 01 01 AM
Surr Tetrachlorethene	105	0	70 - 134		%REC	1	07/25/07 01 01 AM
Volatile Organics by GC		**SW8021B**					**Analyst: DEW**
Benzene	ND	0 00334	0 00557		mg/Kg-dry	1	07/25/07 01 21 PM
Ethylbenzene	ND	0 00557	0 0167		mg/Kg-dry	1	07/25/07 01 21 PM
Toluene	ND	0 00557	0 0167		mg/Kg-dry	1	07/25/07 01 21 PM
Xylenes, Total	ND	0 00557	0 0167		mg/Kg-dry	1	07/25/07 01 21 PM
Surr Tetrachloroethene	88 9	0	79 - 135		%REC	1	07/25/07 01 21 PM
Percent Moisture		**D2216**					**Analyst: TPO**
Percent Moisture	15 3	0	0	N	WT%	1	07/30/07 09 05 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	J	Analyte detected between MDL and RL
B	Analyte detected in the associated Method Blank	MDL	Method Detection Limit
C	Sample Result or QC discussed in the Case Narrative	N	Parameter not NELAC certified
DF	Dilution Factor	ND	Not Detected at the Method Detection Limit
E	TPH pattern not Gas or Diesel Range Pattern	RL	Reporting Limit
		S	Spike Recovery outside control limits

DHL Analytical

Date: 07/31/07

CLIENT:	Larson & Associates	**Client Sample ID:**	Under Sleeve
Project:	BP-Saunders Gathering	**Lab ID:**	0707139-03
Project No:	7-0122	**Collection Date:**	07/23/07 10:15 AM
Lab Order:	0707139	**Matrix:**	Soil

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH by GC - Soil DRO+ORO		**M8015D**					**Analyst: DO**
TPH-DRO C10-C28	ND	3 09	10 3		mg/Kg-dry	1	07/25/07 08 54 PM
TPH-ORO >C28-C35	ND	3 09	10 3		mg/Kg-dry	1	07/25/07 08 54 PM
Surr o-Terphenyl	75 9	0	47 - 142		%REC	1	07/25/07 08 54 PM
Surr Octacosane	86 4	0	25 - 162		%REC	1	07/25/07 08 54 PM
Modified 8015 Gasoline (GRO)		**M8015V**					**Analyst: DEW**
Gasoline Range Organics	ND	0 0647	0 216		mg/Kg-dry	1	07/25/07 01 28 AM
Surr Tetrachlorethene	106	0	70 - 134		%REC	1	07/25/07 01 28 AM
Volatile Organics by GC		**SW8021B**					**Analyst: DEW**
Benzene	ND	0 00343	0 00571		mg/Kg-dry	1	07/25/07 01 48 PM
Ethylbenzene	ND	0 00571	0 0171		mg/Kg-dry	1	07/25/07 01 48 PM
Toluene	ND	0 00571	0 0171		mg/Kg-dry	1	07/25/07 01 48 PM
Xylenes, Total	ND	0 00571	0 0171		mg/Kg-dry	1	07/25/07 01 48 PM
Surr Tetrachloroethene	91 0	0	79 - 135		%REC	1	07/25/07 01 48 PM
Percent Moisture		**D2216**					**Analyst: TPO**
Percent Moisture	14 2	0	0	N	WT%	1	07/30/07 04 00 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	J	Analyte detected between MDL and RL
B	Analyte detected in the associated Method Blank	MDL	Method Detection Limit
C	Sample Result or QC discussed in the Case Narrative	N	Parameter not NELAC certified
DF	Dilution Factor	ND	Not Detected at the Method Detection Limit
E	TPH pattern not Gas or Diesel Range Pattern	RL	Reporting Limit
		S	Spike Recovery outside control limits

CLIENT: Larson & Associates
Work Order: 0707139
Project: BP-Saunders Gathering

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_070725A

Sample ID:	LCS-26639	**Batch ID:**	26639	**TestNo:**	M8015D			**Units:**	mg/Kg		
SampType:	LCS	**Run ID:**	GC15_070725A	**Analysis Date:**	07/25/07 01:29 PM			**Prep Date:**	07/25/07		
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
TPH-DRO C10-C28		209	10 0	250 0	0	83 4	50	114			
Surr o-Terphenyl		13 4		15 00		89 1	47	142			
Surr Octacosane		8 60		15 00		57 3	25	162			

Sample ID:	MB-26639	**Batch ID:**	26639	**TestNo:**	M8015D			**Units:**	mg/Kg		
SampType:	MBLK	**Run ID:**	GC15_070725A	**Analysis Date:**	07/25/07 04.06 PM			**Prep Date:**	07/25/07		
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
TPH-DRO C10-C28		ND	10 0								
TPH-ORO >C28-C35		ND	10 0								
Surr o-Terphenyl		10 9		15 00		72 9	47	142			
Surr Octacosane		12 2		15 00		81 4	25	162			

Sample ID:	0707129-35A-MS	**Batch ID.**	26639	**TestNo:**	M8015D			**Units:**	mg/Kg-dry		
SampType:	MS	**Run ID:**	GC15_070725A	**Analysis Date:**	07/25/07 11:05 PM			**Prep Date:**	07/25/07		
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
TPH-DRO C10-C28		151	8 82	220 6	0	68 3	50	114			
Surr o-Terphenyl		10 8		13 23		81 5	47	142			
Surr Octacosane		10 2		13 23		77 2	25	162			

Sample ID:	0707129-35A-MSD	**Batch ID:**	26639	**TestNo:**	M8015D			**Units:**	mg/Kg-dry		
SampType:	MSD	**Run ID:**	GC15_070725A	**Analysis Date:**	07/25/07 11:32 PM			**Prep Date:**	07/25/07		
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
TPH-DRO C10-C28		145	8 95	223 8	0	64 9	50	114	3 66	30	
Surr o-Terphenyl		11 1		13 43		82 4	47	142	0	0	
Surr Octacosane		11 6		13 43		86 5	25	162	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	N	Parameter not NELAC certified
ND	Not Detected at the Method Detection Limit		

CLIENT: Larson & Associates
Work Order: 0707139
Project: BP-Saunders Gathering

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_070725A

Sample ID:	ICV-070725	**Batch ID:**	R32769		**TestNo:**		M8015D			**Units:**	mg/Kg	
SampType:	ICV	**Run ID:**	GC15_070725A		**Analysis Date:**		07/25/07 01:03 PM			**Prep Date:**		
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**		**Qual**
TPH-DRO C10-C28		972	10 0	1000	0	97 2	85	115				
TPH-ORO >C28-C35		1 90	10 0	0								
Surr o-Terphenyl		62 1		60 00		103	47	142				
Surr Octacosane		46 2		60 00		76 9	25	162				

Sample ID:	CCV1-070725	**Batch ID:**	R32769		**TestNo:**		M8015D			**Units:**	mg/Kg	
SampType:	CCV	**Run ID:**	GC15_070725A		**Analysis Date:**		07/25/07 06:43 PM			**Prep Date:**		
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**		**Qual**
TPH-DRO C10-C28		476	10 0	500 0	0	95 2	85	115				
TPH-ORO >C28-C35		4 43	10 0	0								
Surr o-Terphenyl		33 6		30 00		112	47	142				
Surr Octacosane		28 9		30 00		96 3	25	162				

Sample ID:	CCV2-070725	**Batch ID:**	R32769		**TestNo:**		M8015D			**Units:**	mg/Kg	
SampType:	CCV	**Run ID:**	GC15_070725A		**Analysis Date:**		07/25/07 11:57 PM			**Prep Date:**		
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**		**Qual**
TPH-DRO C10-C28		476	10 0	500 0	0	95 2	85	115				
TPH-ORO >C28-C35		8 20	10 0	0								
Surr o-Terphenyl		32 3		30 00		108	47	142				
Surr Octacosane		32 6		30 00		109	25	162				

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	N	Parameter not NELAC certified
ND	Not Detected at the Method Detection Limit		

CLIENT: Larson & Associates
Work Order: 0707139
Project: BP-Saunders Gathering

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_070724A

Sample ID:	LCS-26619	**Batch ID:**	26619	**TestNo:**	M8015V			**Units:**		mg/Kg	
SampType:	LCS	**Run ID:**	GC4_070724A	**Analysis Date:**	07/24/07 11:28 AM			**Prep Date:**		07/24/07	
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Gasoline Range Organics		4 36	0 200	5 000	0	87 1	68	126			
Surr Tetrachlorethene		0 333		0 4000		83 2	70	134			

Sample ID:	MB-26619	**Batch ID:**	26619	**TestNo:**	M8015V			**Units:**		mg/Kg	
SampType:	MBLK	**Run ID:**	GC4_070724A	**Analysis Date:**	07/24/07 01:05 PM			**Prep Date:**		07/24/07	
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Gasoline Range Organics		ND	0 200								
Surr Tetrachlorethene		0 390		0 4000		97 6	70	134			

Sample ID:	0707129-25B MS	**Batch ID:**	26619	**TestNo:**	M8015V			**Units:**		mg/Kg-dry	
SampType:	MS	**Run ID:**	GC4_070724A	**Analysis Date:**	07/24/07 05:22 PM			**Prep Date:**		07/24/07	
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Gasoline Range Organics		3 54	0 212	5 302	0	66 7	68	126			S
Surr Tetrachlorethene		0 444		0 4242		105	70	134			

Sample ID:	0707129-25B MSD	**Batch ID:**	26619	**TestNo:**	M8015V			**Units:**		mg/Kg-dry	
SampType:	MSD	**Run ID:**	GC4_070724A	**Analysis Date:**	07/24/07 05:49 PM			**Prep Date:**		07/24/07	
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Gasoline Range Organics		2 04	0 212	5 302	0	38 5	68	126	53 7	30	SR
Surr Tetrachlorethene		0 484		0 4242		114	70	134	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	N	Parameter not NELAC certified
ND	Not Detected at the Method Detection Limit		

CLIENT: Larson & Associates
Work Order: 0707139
Project: BP-Saunders Gathering

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_070724A

Sample ID:	ICV-070724	**Batch ID:**	R32749		**TestNo:**		M8015V			**Units:**	mg/Kg
SampType:	ICV	**Run ID:**	GC4_070724A		**Analysis Date:**		07/24/07 11:06 AM			**Prep Date:**	
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Gasoline Range Organics		9 17	0 200	10 00	0	91 7	85	115			
Surr Tetrachlorethene		0 368		0 4000		91 9	74	138			

Sample ID:	CCV1-070724	**Batch ID:**	R32749		**TestNo:**		M8015V			**Units:**	mg/Kg
SampType.	CCV	**Run ID:**	GC4_070724A		**Analysis Date:**		07/24/07 04:56 PM			**Prep Date:**	
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Gasoline Range Organics		4 28	0 200	5 000	0	85 6	85	115			
Surr Tetrachlorethene		0 345		0 4000		86 2	74	138			

Sample ID:	CCV2-070724	**Batch ID:**	R32749		**TestNo:**		M8015V			**Units:**	mg/Kg
SampType:	CCV	**Run ID:**	GC4_070724A		**Analysis Date:**		07/24/07 10:26 PM			**Prep Date:**	
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Gasoline Range Organics		4 83	0 200	5 000	0	96 5	85	115			
Surr Tetrachlorethene		0 377		0 4000		94 4	74	138			

Sample ID:	CCV3-070724	**Batch ID:**	R32749		**TestNo:**		M8015V			**Units:**	mg/Kg
SampType:	CCV	**Run ID:**	GC4_070724A		**Analysis Date:**		07/25/07 01:54 AM			**Prep Date:**	
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Gasoline Range Organics		4 77	0 200	5 000	0	95 5	85	115			
Surr Tetrachlorethene		0 368		0 4000		91 9	74	138			

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	N	Parameter not NELAC certified
ND	Not Detected at the Method Detection Limit		

CLIENT: Larson & Associates
Work Order: 0707139
Project: BP-Saunders Gathering

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_070725A

Sample ID:	**LCS-26637**	**Batch ID:**	**26637**	**TestNo:**		**SW8021B**		**Units:**		**mg/Kg**
SampType:	**LCS**	**Run ID:**	**GC4_070725A**	**Analysis Date:**		**07/25/07 09:46 AM**		**Prep Date:**		**07/25/07**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Benzene		0 0897	0 00500	0 1000	0	89 7	65	113			
Toluene		0 0915	0 0150	0 1000	0	91 5	73	115			
Ethylbenzene		0 0937	0 0150	0 1000	0	93 7	74	118			
Xylenes, Total		0 292	0 0150	0 3000	0	97 2	73	119			
Surr Tetrachloroethene		0 170		0 2000		84 9	79	135			

Sample ID:	**MB-26637**	**Batch ID:**	**26637**	**TestNo:**		**SW8021B**		**Units:**		**mg/Kg**
SampType:	**MBLK**	**Run ID:**	**GC4_070725A**	**Analysis Date:**		**07/25/07 10:12 AM**		**Prep Date:**		**07/25/07**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Benzene		ND	0 00500								
Toluene		ND	0 0150								
Ethylbenzene		ND	0 0150								
Xylenes, Total		ND	0 0150								
Surr Tetrachloroethene		0 177		0 2000		88 4	79	135			

Sample ID:	**0707139-03A MS**	**Batch ID:**	**26637**	**TestNo:**		**SW8021B**		**Units:**		**mg/Kg-dry**
SampType	**MS**	**Run ID:**	**GC4_070725A**	**Analysis Date:**		**07/25/07 03:34 PM**		**Prep Date:**		**07/25/07**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Benzene		0 0960	0 00583	0 1165	0	82 4	65	113			
Toluene		0 0920	0 0175	0 1165	0	78 9	73	115			
Ethylbenzene		0 0958	0 0175	0 1165	0	82 2	74	118			
Xylenes, Total		0 298	0 0175	0 3495	0	85 2	73	119			
Surr Tetrachloroethene		0 202		0 2330		86 5	79	135			

Sample ID:	**0707139-03A MSD**	**Batch ID:**	**26637**	**TestNo:**		**SW8021B**		**Units:**		**mg/Kg-dry**
SampType:	**MSD**	**Run ID:**	**GC4_070725A**	**Analysis Date:**		**07/25/07 04:19 PM**		**Prep Date:**		**07/25/07**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Benzene		0 0861	0 00571	0 1142	0	75 3	65	113	11 0	30	
Toluene		0 0808	0 0171	0 1142	0	70 7	73	115	12 9	30	S
Ethylbenzene		0 0890	0 0171	0 1142	0	77 9	74	118	7 35	30	
Xylenes, Total		0 285	0 0171	0 3427	0	83 2	73	119	4 34	30	
Surr Tetrachloroethene		0 216		0 2284		94 4	79	135	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	N	Parameter not NELAC certified
ND	Not Detected at the Method Detection Limit		

CLIENT: Larson & Associates
Work Order: 0707139
Project: BP-Saunders Gathering

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_070725A

Sample ID:	**ICV-070725**	**Batch ID:**	**R32762**		**TestNo:**		**SW8021B**		**Units:**		**mg/Kg**
SampType:	**ICV**	**Run ID:**	**GC4_070725A**		**Analysis Date:**		**07/25/07 09:19 AM**		**Prep Date:**		
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Benzene		0 174	0 00500	0 2000	0	87 1	85	115			
Toluene		0 176	0 0150	0 2000	0	87 9	85	115			
Ethylbenzene		0 177	0 0150	0 2000	0	88 4	85	115			
Xylenes, Total		0 545	0 0150	0 6000	0	90 8	85	115			
Surr Tetrachloroethene		0 179		0 2000		89 3	79	135			

Sample ID:	**CCV1-070725**	**Batch ID:**	**R32762**		**TestNo:**		**SW8021B**		**Units:**		**mg/Kg**
SampType:	**CCV**	**Run ID:**	**GC4_070725A**		**Analysis Date:**		**07/25/07 02:12 PM**		**Prep Date:**		
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Benzene		0 102	0 00500	0 1000	0	102	85	115			
Toluene		0 102	0 0150	0 1000	0	102	85	115			
Ethylbenzene		0 105	0 0150	0 1000	0	105	85	115			
Xylenes, Total		0 324	0 0150	0 3000	0	108	85	115			
Surr Tetrachloroethene		0 184		0 2000		92 2	79	135			

Sample ID:	**CCV2-070725**	**Batch ID:**	**R32762**		**TestNo:**		**SW8021B**		**Units:**		**mg/Kg**
SampType:	**CCV**	**Run ID:**	**GC4_070725A**		**Analysis Date:**		**07/25/07 04:45 PM**		**Prep Date:**		
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Benzene		0 102	0 00500	0 1000	0	102	85	115			
Toluene		0 105	0 0150	0 1000	0	105	85	115			
Ethylbenzene		0 107	0 0150	0 1000	0	107	85	115			
Xylenes, Total		0 331	0 0150	0 3000	0	110	85	115			
Surr Tetrachloroethene		0 182		0 2000		90 8	79	135			

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	N	Parameter not NELAC certified
ND	Not Detected at the Method Detection Limit		

CLIENT: Larson & Associates
Work Order: 0707139
Project: BP-Saunders Gathering

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_070730A

Sample ID:	0707180-03A DUP	**Batch ID:**	PMOIST_070730A	**TestNo:**	D2216			**Units:**		WT%	
SampType:	DUP	**Run ID:**	PMOIST_070730A	**Analysis Date:**	07/30/07 09:05 AM			**Prep Date:**		07/27/07	
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Percent Moisture		27 6	0	0	26 88				2 75	30	N

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	N	Parameter not NELAC certified
ND	Not Detected at the Method Detection Limit		

CLIENT: Larson & Associates
Work Order: 0707139
Project: BP-Saunders Gathering

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_070730B

Sample ID:	0707158-07A DUP	**Batch ID:**	PMOIST_070730B	**TestNo:**	D2216			**Units:**	WT%		
SampType:	DUP	**Run ID:**	PMOIST_070730B	**Analysis Date:**	07/30/07 04:00 PM			**Prep Date:**	07/30/07		
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Percent Moisture		17 3	0	0	17 34				0 124	30	N

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	N	Parameter not NELAC certified
ND	Not Detected at the Method Detection Limit		