Larson & Associates, Inc.
Environmental Consultants

October 4, 2005

Mr. Jeff Dann
Plains Pipeline, L.P.
333 Clay Street, Suite 1600
Houston, Texas 77002

Re: Investigation Summary and Work Plan for Remediation Activities, Plains Pipeline, L.P., Anadarko Langley Mattix Penrose Unit Spill, Unit Letter P (SE/4, SE/4), Section 29, Township 22 South, Range 37 East, Lea County, New Mexico
Plains Project Number OSI 01-01-04

Dear Mr. Dann:

Plains Pipeline, L.P. ("Plains") has retained Larson and Associates, Inc. ("LA") to remediate impacted soil from a spill involving crude oil. The spill occurred on January 6, 2004, at the Anadarko Langley Mattix Penrose Unit ("LMPSU") located in the southeast quarter ("SE/4") of the southeast quarter ("SE/4"), Section 29, Township 22 South, Range 37 East, Lea County, New Mexico. Figure 1 presents a location map.

The New Mexico Oil Conservation Division (NMOCD) has developed guidelines ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"), and recommended remediation action levels ("RRAL") for spills involving crude oil. Site-specific RRAL were determined by evaluating criteria including depth to ground water, distance to water wells and surface water. Groundwater occurs at approximately 87 feet below ground surface ("bgs") and no domestic water wells or surface waters are located within 1,000 feet of the spill, therefore, the following RRALs have been assigned to the spill:

Benzene	**10 mg/Kg**
Total BTEX	**50 mg/Kg**
TPH	**1000 mg/Kg**

Initial Investigations

An Investigation Summary and Work Plan for Additional Investigation was submitted to Plains on May 4, 2005, that detailed analytical results of surface soil samples collected on January 26, 2004 and April 27, 2004, and analytical results of soil samples collected from seven (7) soil borings (BH-1 through BH-7) installed at the site on March 21 and 22, 2005. The May 2005 report proposed the installation of five (5) additional soil borings in order to effectively delineate the vertical extent of soil impact.

On July 25, 2005, LA installed five (5) soil borings (BH-A through BH-E) at the site, using an air rotary drilling rig, to assess the vertical limits of the spill. Samples from the exploratory borings were collected from ground surface to a depth of approximately twenty-two feet below ground surface (bgs), using a split spoon sampling device. The sampling equipment was thoroughly cleaned between soil boring locations with a solution of laboratory-grade detergent and potable water, and rinsed with distilled water. All soil borings were plugged with bentonite upon completion of sampling activities. Figure 2 shows the locations of the soil borings.

The soil samples from borings BH-A through BH-E were collected at a depth of five (5) feet bgs, and every five (5) feet thereafter. Samples were placed in clean glass sample jars, labeled, chilled in an ice chest, and delivered under chain-of-custody control to TraceAnalysis, Inc., of Lubbock, Texas. A duplicate of each sample

facility - fPAC0613850420
application - pPAC0613850598

507 North Marienfeld, Suite 202 ◆ Midland, Texas 79701 ◆ Ph. (432) 687-0901 ◆ Fax (432) 687-0456

Incident - nPAC0613850526

was also placed in a clean glass sample jar for headspace analysis. The headspace jars were filled approximately ¾ full, and a layer of aluminum foil was placed over the opening of the jar before replacing the cap. The headspace samples were allowed to reach ambient temperature before a RAE Instruments, Model 2000 photoionization detector ("PID") was used to measure the concentration of organic vapors in the headspace of the sample jars. The PID probe was inserted into the headspace of the sample jars (through the aluminum foil), and the concentration of organic vapors was displayed by the instrument in parts per million ("ppm"). The PID readings are summarized in Table 1. Soil boring logs are included in Appendix A.

All soil samples collected from borings BH-A through BH-E were analyzed for TPH by EPA method 8015 (extended) for GRO and DRO. If the PID reading exceeded 100 ppm, the sample was also analyzed for BTEX by method 8021B. Table 1 presents a summary of laboratory analysis of soil samples. Laboratory analyses and chain of custody documentation are included in Appendix B.

Referring to Table 1, soil samples analyzed from borings BH-A, BH-C, BH-D and BH-E reported TPH concentrations below the test method detection limit. Samples collected from boring BH-B reported TPH concentrations below the RRAL in the sample from 10 to 12 feet bgs (799 mg/kg) and the sample from 15 to 17 feet bgs (761 mg/kg). Deeper samples collected from boring BH-B reported TPH concentrations below the test method detection limit.

Proposed Remediation

LA proposes to conduct excavation of the impacted soil at the site in the vicinity of borings BH-1, BH-3 and BH-6 (to a depth of approximately 3' bgs), and in the vicinity of borings BH-2, BH-4, BH-5 and BH-D (to a depth of approximately 10' bgs), until analytical results of soil samples report TPH concentrations below the RRAL. Excavated soil will be placed on site and blended to reduce the TPH concentrations below the RRAL. Representative samples of the blended material will be submitted to the laboratory for analysis to confirm that the RRALs have been met. Analytical results from final confirmation samples will be reported to the NMOCD and Bureau of Land Management (BLM) prior to backfilling of the excavation.

Please call me at (432) 687-0901 if you have any questions. I may also be reached by email at Cindy@LAEnvironmental.com.

Sincerely,
Larson & Associates, Inc.

Cindy K. Crain

Cindy K. Crain, P.G.
Project Manager

cc: Daniel Bryant, Plains

Encl.

TABLE

507 North Marienfeld, Suite 202 ◆ Midland, Texas 79701 ◆ Ph. (432) 687-0901 ◆ Fax (432) 687-0456

Table 1
Summary of Laboratory Analysis of Soil Samples From Soil Borings
Plains All American Pipeline, L.P., Langlie Mattix Penrose Sub Unit (LMPSU) Anadarko
UL-P, Section 29, Township 22 South, Range 37 East
Lea County, New Mexico
Plains Project Number OSI 01-01-04

Boring Number	Sample Date	Sample Depth (feet BGS)	PID (ppm)	Benzene mg/kg	Total BTEX mg/kg	GRO (C6 C12) mg/kg	DRO (>C12-C35) mg/kg	TPH (C6-C35) mg/kg
RRAL				10	50			1000
BH-1	03/21/05	0-1	80.9	—	—	236	11,800	12,036
	03/21/05	4-5	22.5	—	—	8.21	857	865.21
BH-2	03/21/05	3-4	1392.0	1.04	77.84	1,660	2,680	4,340
	03/21/05	7-8	1,411	0.586	67.886	2,290	4,530	6,820
BH-3	03/21/05	0-1	94.0	—	—	76.0	2,420	2,496
	03/21/05	7-8	16.9	—	—	7.19	<50.0	7.19
BH-4	03/21/05	2-3	1454.0	5.10	368.20	1,300	5,950	7,250
	03/21/05	5-6	1530.0	2.69	176.49	1,000	3,340	4,340
	03/21/05	7-8	1464.0	<0.0500	120.1	1,230	3,120	4,350
BH-5	03/22/05	0-1	33.2	—	—	44.9	654	698.9
	03/22/05	4-5	12.5	—	—	26.5	1,950	1,976.5
BH-6	03/22/05	0-1	28.7	—	—	25.8	2,110	2,135.8
	03/22/05	4-5	11.8	—	—	33.9	444	477.9
	03/22/05	7-8	9.2	—	—	1.62	<50.0	1.62
BH-7	03/22/05	2-3	6.4	—	—	1.29	65.6	66.89
	03/22/05	5-6	6.8	—	—	6.89	<50.0	6.89
BH-A	07/25/05	5-7	5.2	—	—	<1.0	<50.0	<51.0
	07/25/05	10-12	4.7	—	—	<1.0	<50.0	<51.0
	07/25/05	15-17	3.0	—	—	<1.0	<50.0	<51.0
BH-B	07/25/05	10-12	288.0	<0.01	0.1456	799.00	<50.0	799.00
	07/25/05	15-17	750.0	<0.01	8.323	162.00	599	761.00
	07/25/05	20-22	35.8	—	—	<1.0	<50.0	<51.0
	07/25/05	25-27	11.1	—	—	<1.0	<50.0	<51.0
BH-C	07/25/05	5-7	0.8	—	—	<1.0	<50.0	<51.0
	07/25/05	10-12	0.7	—	—	<1.0	<50.0	<51.0
	07/25/05	15-17	0.5	—	—	<1.0	<50.0	<51.0
	07/25/05	20-22	0.5	—	—	<1.0	<50.0	<51.0
BH-D	07/25/05	10-12	1.4	—	—	<1.0	<50.0	<51.0
	07/25/05	15-17	3.8	—	—	<1.0	<50.0	<51.0
	07/25/05	20-22	17.9	—	—	<1.0	<50.0	<51.0
BH-E	07/25/05	5-7	2.9	—	—	<1.0	<50.0	<51.0
	07/25/05	10-12	0.3	—	—	<1.0	<50.0	<51.0
	07/25/05	15-17	0.5	—	—	<1.0	<50.0	<51.0
	07/25/05	20-22	0.1	—	—	<1.0	<50.0	<51.0

Notes: All analyses performed by TraceAnalysis, Inc., Lubbock, Texas

1. **BGS:** Depth in feet below ground surface
2. **PID:** Photoionization detector
3. **ppm:** Parts per million
4. **GRO:** Gasoline-range organics
5. **DRO:** Diesel-range organics
6. **TPH:** Total petroleum hydrocarbons (Sum of GRO + DRO)
7. **mg/kg:** Milligrams per kilogram
8. **—:** No data available
9. **<:** Below method detection limit
10. **RRAL:** NMOCD Recommended Remediation Action Level

FIGURES

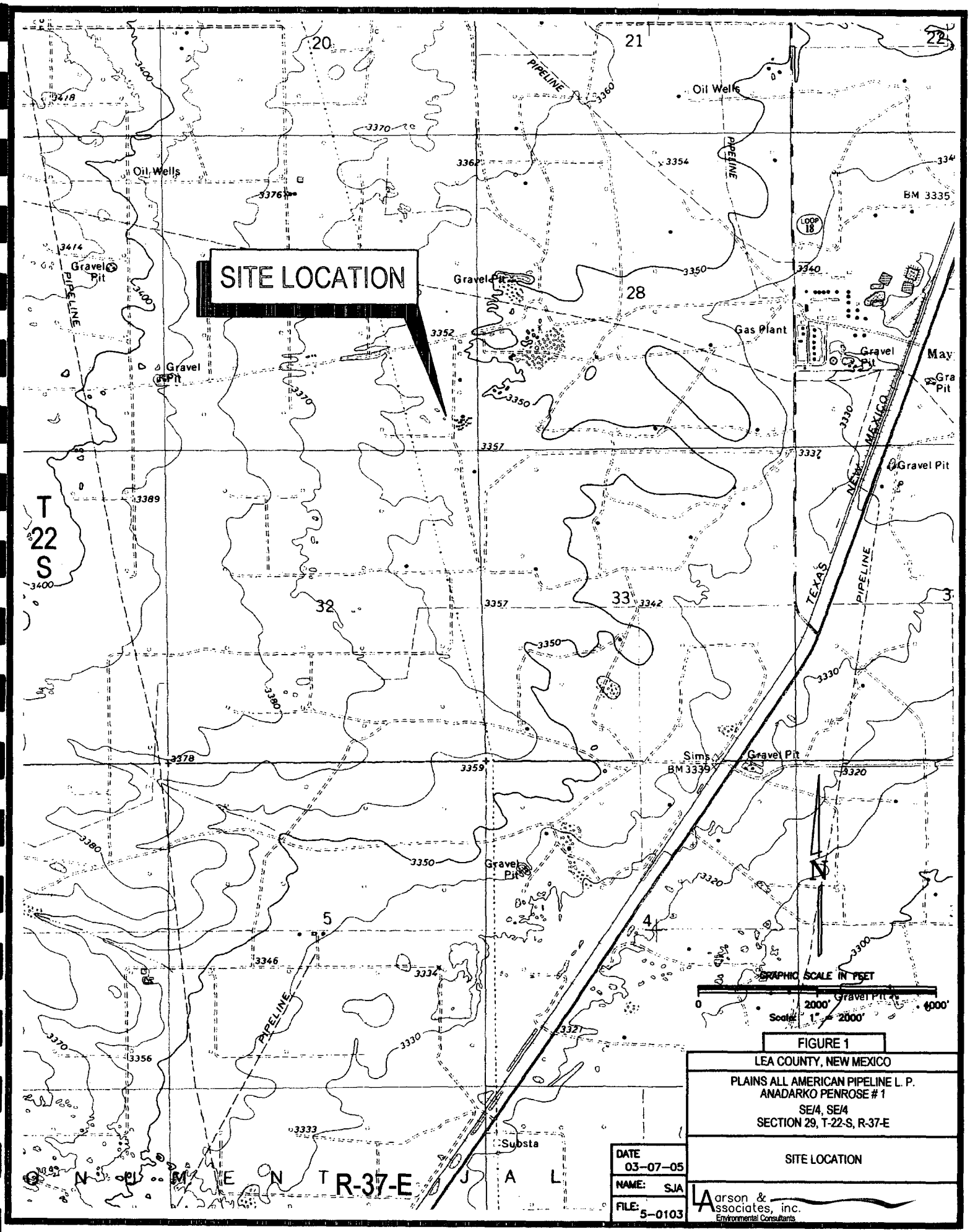


FIGURE 1

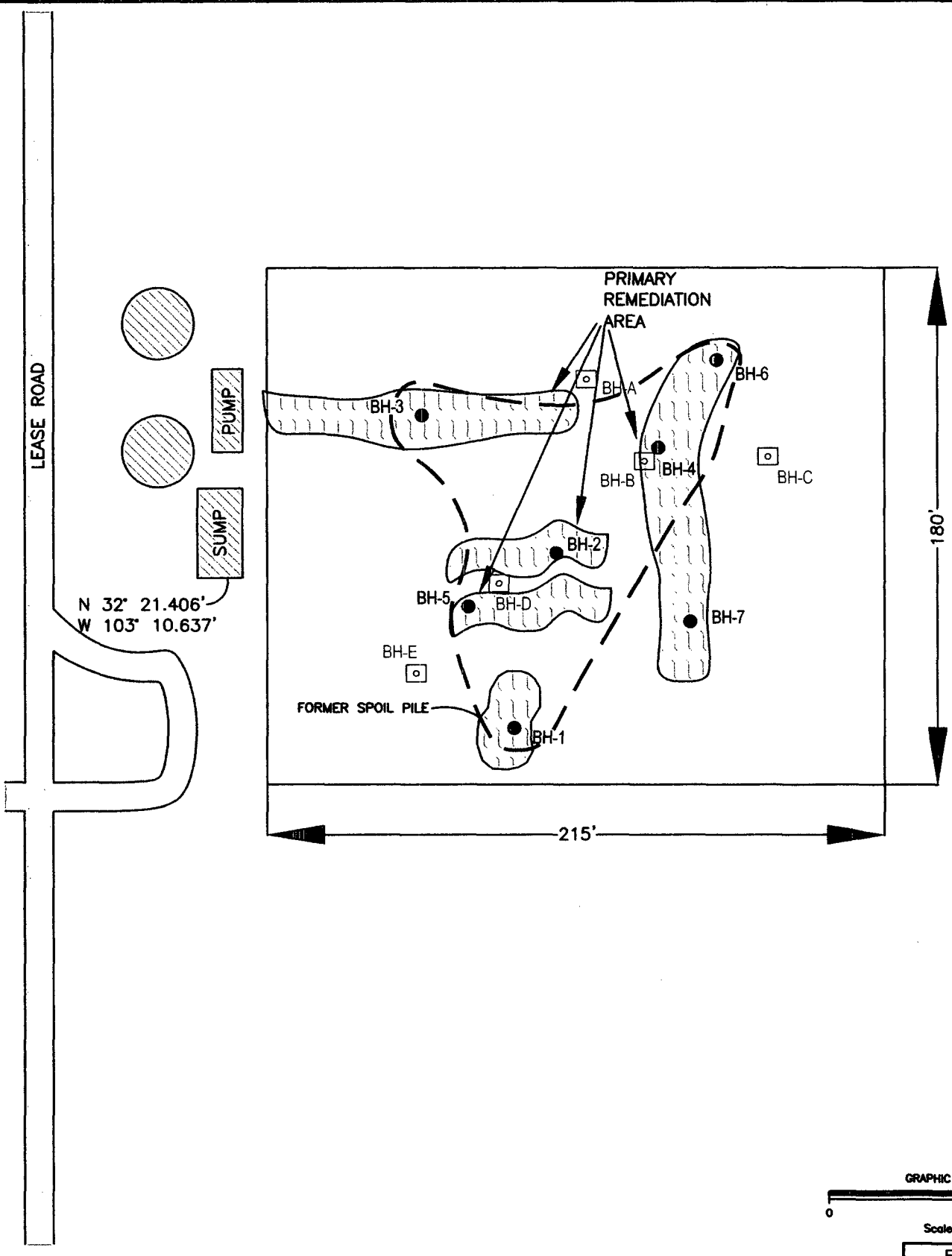
LEA COUNTY, NEW MEXICO

PLAINS ALL AMERICAN PIPELINE L. P.
ANADARKO PENROSE # 1
SE/4, SE/4
SECTION 29, T-22-S, R-37-E

SITE LOCATION

DATE	03-07-05
NAME:	SJA
FILE:	5-0103

Larson & Associates, inc.
Environmental Consultants



GRAPHIC SCALE IN FEET

0 50' 100'

Scale: 1" = 50'

LEGEND

- ● – GEOPROBE BORING LOCATION
- ⊡ – SOIL BORING LOCATIONS, (7/25/05)
- — — – PROPOSED EXCAVATION AREA

FIGURE 2

LEA COUNTY, NEW MEXICO

PLAINS ALL AMERICAN PIPELINE L. P.
ANADARKO PENROSE # 1
SE/4, SE/4
SECTION 29, T-22-S, R-37-E

SITE DETAILS

DATE: 08-09-05
NAME: SJA
FILE: 5-0103

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APPENDIX A

Soil Boring Logs

Client: Plains Pipeline, L. P.

Project: Anadarko Penrose # 1

Project No: 5-0103

Location: SE/SE, Sec. 29, T-22-S, R-37-E

Log: BH-A

Page: 1 of 1

Geologist: C. Crain

SUBSURFACE PROFILE			SAMPLE				
Depth	Symbol	Description	Number	Type	Recovery	PID ppm (1 3 5 7 9)	Notes
0		Ground Surface					
		Silty Sand 7.5 YR 4/6, Strong brown quartz sand					
		Caliche 7.5 YR 8/2, Pinkish white quartz sand, dry, indurated					
5			1			5.2	
10		***Silty Sand*** 5 YR 5/6, Yellowish red quartz sand, fine grained, moderately loose, moderately well sorted, dry, no odor or stain	2			4.7	
15			3			3.0	
20			4			2.7	
		TD: 22'					
25							

Drill Method: Air Rotary

Drill Date: 7/25/05

Hole Size: 5"

Larson and Associates, Inc
507 N. Marienfeld, Suite 202
Midland, Texas 79701
(432) 687-0901

Elevation: N/A

Checked by: CC

Drilled by: Scarborough Drilling

Client: Plains Pipeline, L. P.

Project: Anadarko Penrose # 1

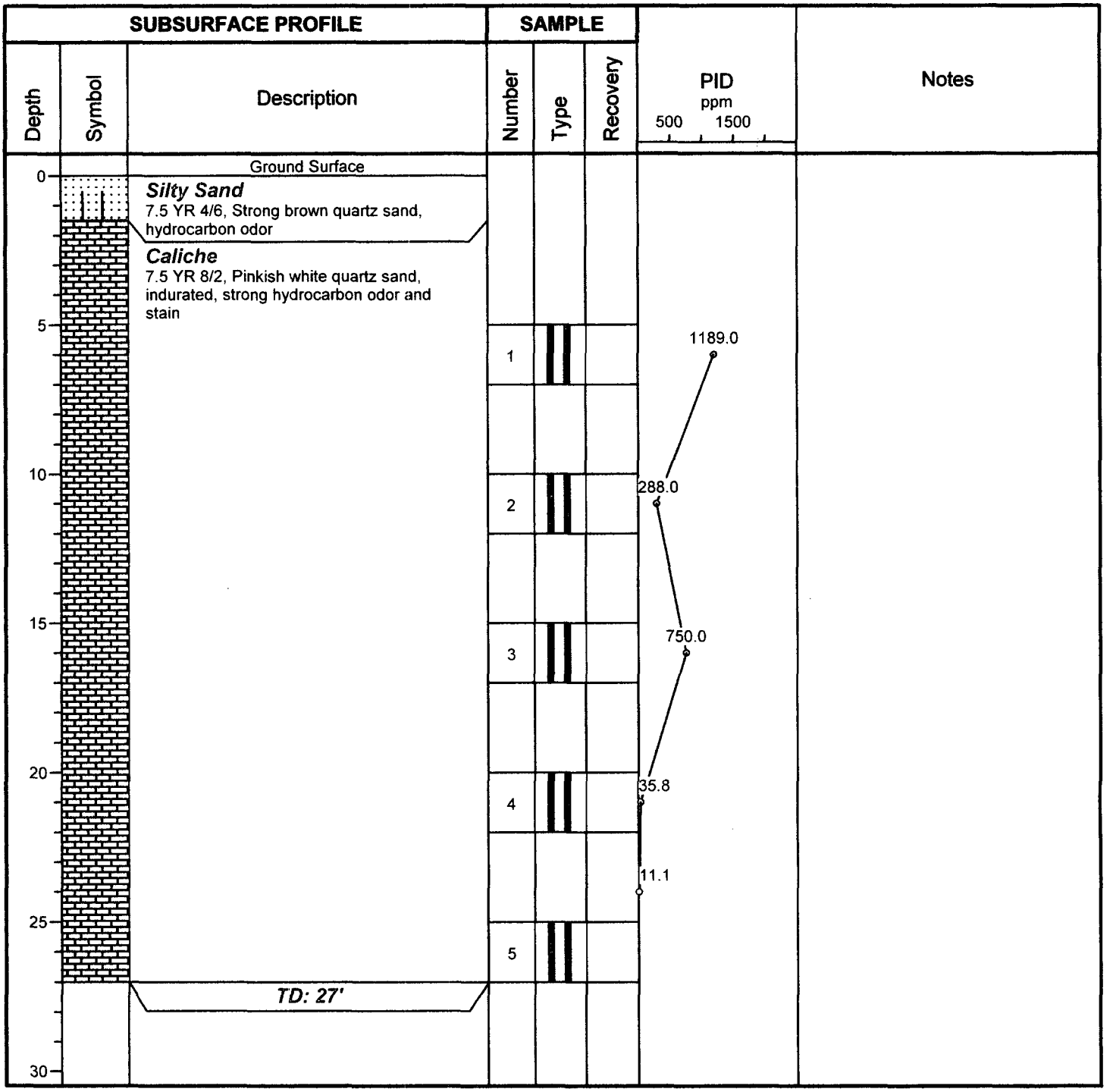
Project No: 5-0103

Location: SE/SE, Sec. 29, T-22-S, R-37-E

Log: BH-B

Page: 1 of 1

Geologist: C. Crain



Drill Method: Air Rotary

Drill Date: 7/25/05

Hole Size: 5"

Larson and Associates, Inc
507 N. Marienfeld, Suite 202
Midland, Texas 79701
(432) 687-0901

Elevation: N/A

Checked by: CC

Drilled by: Scarborough Drilling

Client: Plains Pipeline, L. P.

Project: Anadarko Penrose # 1

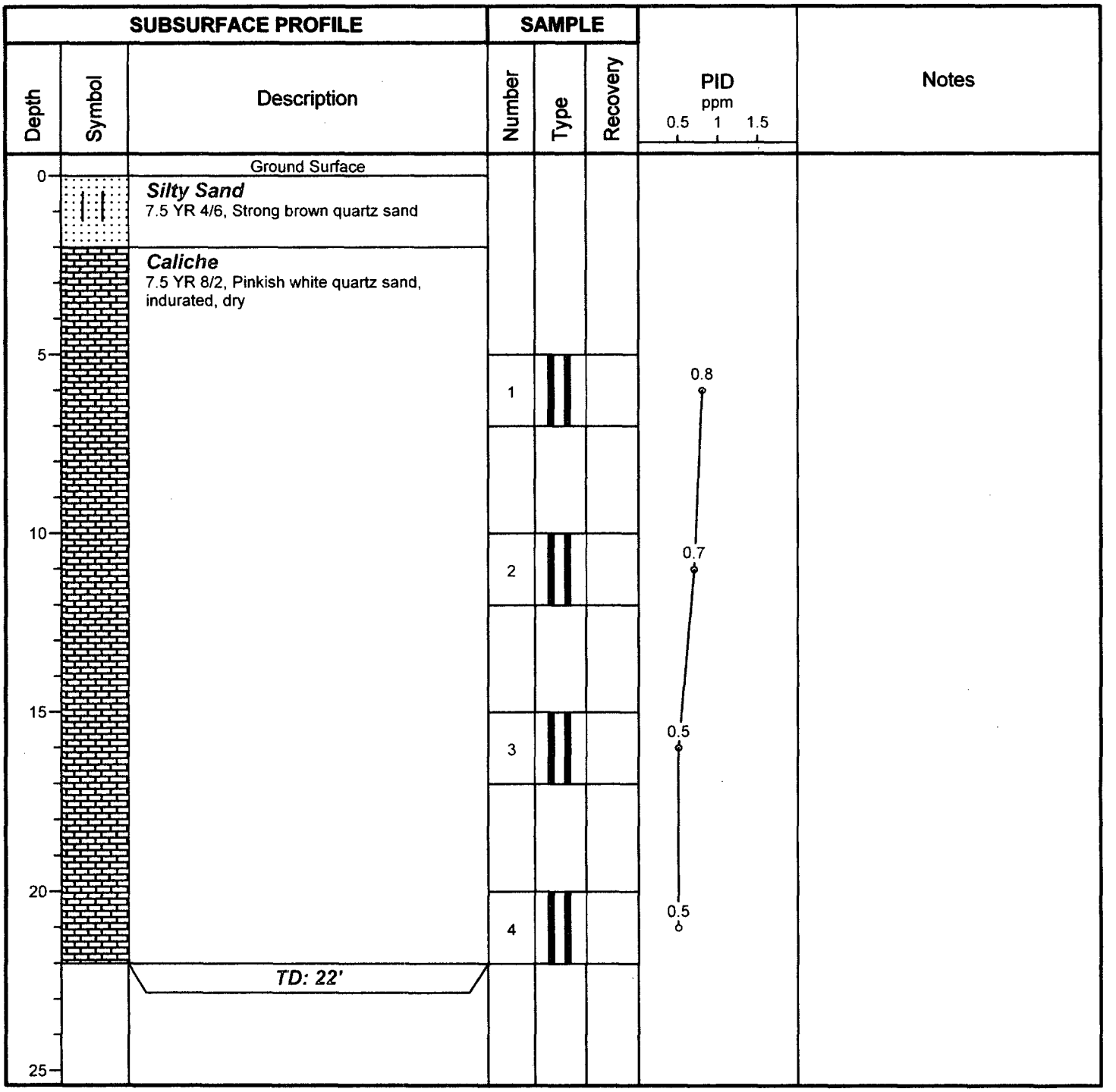
Project No: 5-0103

Location: SE/SE, Sec. 29, T-22-S, R-37-E

Log: BH-C

Page: 1 of 1

Geologist: C. Crain



Drill Method: Air Rotary

Drill Date: 7/25/05

Hole Size: 5"

Larson and Associates, Inc
507 N. Marienfeld, Suite 202
Midland, Texas 79701
(432) 687-0901

Elevation: N/A

Checked by: CC

Drilled by: Scarborough Drilling

Client: Plains Pipeline, L. P.

Project: Anadarko Penrose # 1

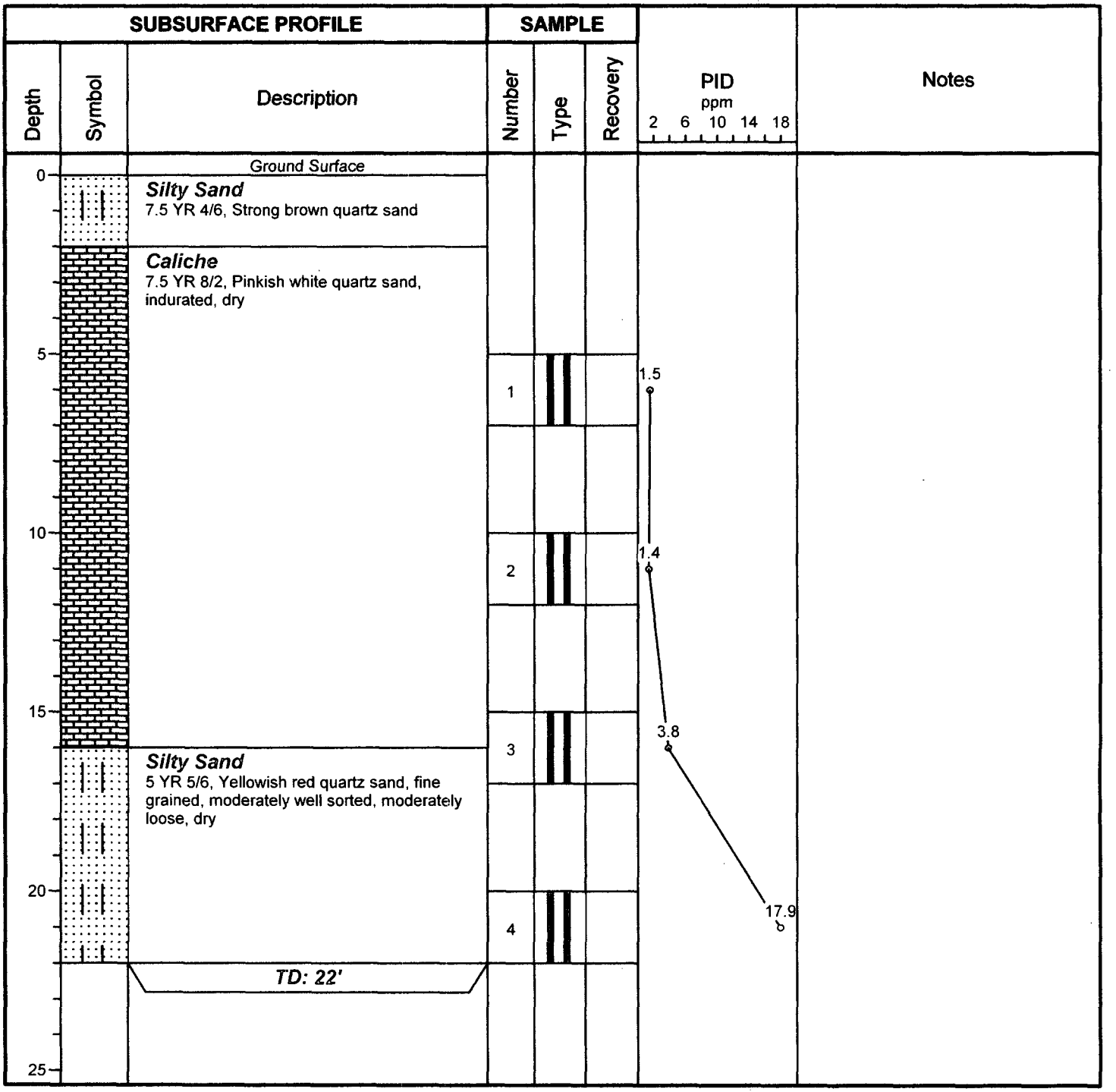
Project No: 5-0103

Location: SE/SE, Sec. 29, T-22-S, R-37-E

Log: BH-D

Page: 1 of 1

Geologist: C. Crain



Drill Method: Air Rotary

Drill Date: 7/25/05

Hole Size: 5"

Larson and Associates, Inc
507 N. Marienfeld, Suite 202
Midland, Texas 79701
(432) 687-0901

Elevation: N/A

Checked by: CC

Drilled by: Scarborough Drilling

Client: Plains Pipeline, L. P.

Project: Anadarko Penrose # 1

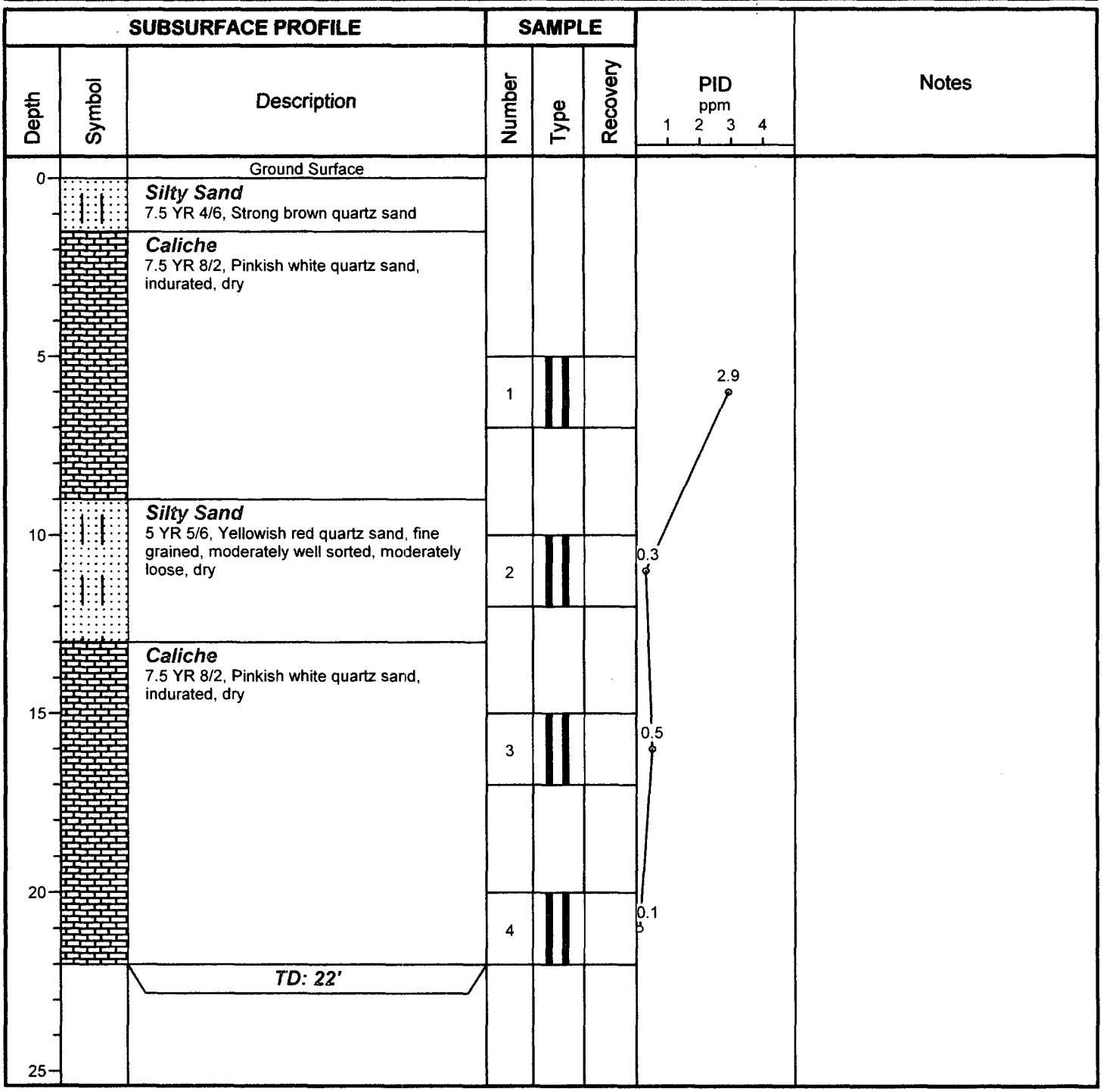
Project No: 5-0103

Location: SE/SE, Sec. 29, T-22-S, R-37-E

Log: BH-E

Page: 1 of 1

Geologist: C. Crain



Drill Method: Air Rotary

Drill Date: 7/25/05

Hole Size: 5"

Larson and Associates, Inc
507 N. Marienfeld, Suite 202
Midland, Texas 79701
(432) 687-0901

Elevation: N/A

Checked by: CC

Drilled by: Scarborough Drilling

APPENDIX B

Laboratory Data and Chain of Custody Documentation

Summary Report

Cindy Crain
Larson and Associates, Inc.
P. O. Box 50685
Midland, Tx 79710

Report Date: July 29, 2005

Work Order: 5072713

Project Name: Anadarko Penrose #1
Project Number: OSI 01-01-04

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
69064	BH-A (5-7')	soil	2005-07-25	09:15	2005-07-27
69065	BH-A (10-12')	soil	2005-07-25	09:21	2005-07-27
69066	BH-A (15-17')	soil	2005-07-25	09:29	2005-07-27
69067	BH-B (10-12')	soil	2005-07-25	10:32	2005-07-27
69068	BH-B (15-17')	soil	2005-07-25	10:36	2005-07-27
69069	BH-B (20-22')	soil	2005-07-25	10:45	2005-07-27
69070	BH-B (25-27')	soil	2005-07-25	10:58	2005-07-27
69071	BH-C (5-7')	soil	2005-07-25	09:50	2005-07-27
69072	BH-C (10-12')	soil	2005-07-25	09:56	2005-07-27
69073	BH-C (15-17')	soil	2005-07-25	10:05	2005-07-27
69074	BH-C (20-22')	soil	2005-07-25	10:10	2005-07-27
69075	BH-D (10-12')	soil	2005-07-25	11:21	2005-07-27
69076	BH-D (15-17')	soil	2005-07-25	11:30	2005-07-27
69077	BH-D (20-22')	soil	2005-07-25	11:35	2005-07-27
69078	BH-E (5-7')	soil	2005-07-25	11:47	2005-07-27
69079	BH-E (10-12')	soil	2005-07-25	11:54	2005-07-27
69080	BH-E (15-17')	soil	2005-07-25	11:58	2005-07-27
69081	BH-E (20-22')	soil	2005-07-25	12:05	2005-07-27

	BTEX				MTBE	TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
69064 - BH-A (5-7')						<50.0	<1.00
69065 - BH-A (10-12')						<50.0	<1.00
69066 - BH-A (15-17')						<50.0	<1.00
69067 - BH-B (10-12')	<0.0100	<0.0100	**0.0376**	**0.108**		<50.0	**7.99**
69068 - BH-B (15-17')	<0.0100	**0.503**	**2.36**	**5.46**		**599**	**162**
69069 - BH-B (20-22')						<50.0	<1.00
69070 - BH-B (25-27')						<50.0	<1.00
69071 - BH-C (5-7')						<50.0	<1.00
69072 - BH-C (10-12')						<50.0	<1.00
69073 - BH-C (15-17')						<50.0	<1.00
69074 - BH-C (20-22')						<50.0	<1.00
69075 - BH-D (10-12')						<50.0	<1.00
69076 - BH-D (15-17')						<50.0	<1.00
69077 - BH-D (20-22')						<50.0	<1.00
69078 - BH-E (5-7')						<50.0	<1.00

continued ...

... continued

Sample - Field Code	BTEX Benzene (mg/Kg)	BTEX Toluene (mg/Kg)	BTEX Ethylbenzene (mg/Kg)	BTEX Xylene (mg/Kg)	MTBE MTBE (mg/Kg)	TPH DRO DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
69079 - BH-E (10-12')						<50.0	<1.00
69080 - BH-E (15-17')						<50.0	<1.00
69081 - BH-E (20-22')						<50.0	<1.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cindy Crain
Larson and Associates, Inc.
P. O. Box 50685
Midland, Tx 79710

Report Date: July 29, 2005

Work Order: 5072713

Project Name: Anadarko Penrose #1
Project Number: OSI 01-01-04

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
69064	BH-A (5-7')	soil	2005-07-25	09:15	2005-07-27
69065	BH-A (10-12')	soil	2005-07-25	09:21	2005-07-27
69066	BH-A (15-17')	soil	2005-07-25	09:29	2005-07-27
69067	BH-B (10-12')	soil	2005-07-25	10:32	2005-07-27
69068	BH-B (15-17')	soil	2005-07-25	10:36	2005-07-27
69069	BH-B (20-22')	soil	2005-07-25	10:45	2005-07-27
69070	BH-B (25-27')	soil	2005-07-25	10:58	2005-07-27
69071	BH-C (5-7')	soil	2005-07-25	09:50	2005-07-27
69072	BH-C (10-12')	soil	2005-07-25	09:56	2005-07-27
69073	BH-C (15-17')	soil	2005-07-25	10:05	2005-07-27
69074	BH-C (20-22')	soil	2005-07-25	10:10	2005-07-27
69075	BH-D (10-12')	soil	2005-07-25	11:21	2005-07-27
69076	BH-D (15-17')	soil	2005-07-25	11:30	2005-07-27
69077	BH-D (20-22')	soil	2005-07-25	11:35	2005-07-27
69078	BH-E (5-7')	soil	2005-07-25	11:47	2005-07-27
69079	BH-E (10-12')	soil	2005-07-25	11:54	2005-07-27
69080	BH-E (15-17')	soil	2005-07-25	11:58	2005-07-27
69081	BH-E (20-22')	soil	2005-07-25	12:05	2005-07-27

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

Dr. Blair Leftwich, Director

Analytical Report

Sample: 69064 - BH-A (5-7')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		122	mg/Kg	1	150	82	50 - 150

Sample: 69064 - BH-A (5-7')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	10	0.100	108	10 - 160
4-Bromofluorobenzene (4-BFB)		1.03	mg/Kg	10	0.100	103	10 - 174

Sample: 69065 - BH-A (10-12')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		114	mg/Kg	1	150	76	50 - 150

Sample: 69065 - BH-A (10-12')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.818	mg/Kg	10	0.100	82	10 - 160
4-Bromofluorobenzene (4-BFB)		0.792	mg/Kg	10	0.100	79	10 - 174

Sample: 69066 - BH-A (15-17')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		115	mg/Kg	1	150	77	50 - 150

Sample: 69066 - BH-A (15-17')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.817	mg/Kg	10	0.100	82	10 - 160
4-Bromofluorobenzene (4-BFB)		0.770	mg/Kg	10	0.100	77	10 - 174

Sample: 69067 - BH-B (10-12')

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	20041	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		<0.0100	mg/Kg	10	0.00100
Ethylbenzene		**0.0376**	mg/Kg	10	0.00100
Xylene		**0.108**	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.904	mg/Kg	10	0.100	90	74.5 - 114
4-Bromofluorobenzene (4-BFB)		0.935	mg/Kg	10	0.100	94	36.6 - 112

Sample: 69067 - BH-B (10-12')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		108	mg/Kg	1	150	72	50 - 150

Sample: 69067 - BH-B (10-12')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**7.99**	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.919	mg/Kg	10	0.100	92	10 - 160
4-Bromofluorobenzene (4-BFB)		1.04	mg/Kg	10	0.100	104	10 - 174

Sample: 69068 - BH-B (15-17')

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	20041	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		**0.503**	mg/Kg	10	0.00100
Ethylbenzene		**2.36**	mg/Kg	10	0.00100
Xylene	[1]	**5.46**	mg/Kg	10	0.00100

[1]Estimated concentration value greater than standard range.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.800	mg/Kg	10	0.100	80	74.5 - 114
4-Bromofluorobenzene (4-BFB)		0.978	mg/Kg	10	0.100	98	36.6 - 112

Sample: 69068 - BH-B (15-17')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**599**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		120	mg/Kg	1	150	80	50 - 150

Sample: 69068 - BH-B (15-17')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20087	Date Analyzed:	2005-07-28	Analyzed By:	KB
Prep Batch:	17646	Sample Preparation:	2005-07-28	Prepared By:	KB

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**162**	mg/Kg	200	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.881	mg/Kg	200	0.00500	88	10 - 160
4-Bromofluorobenzene (4-BFB)	[2]	13.0	mg/Kg	200	0.00500	1300	10 - 174

Sample: 69069 - BH-B (20-22')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		118	mg/Kg	1	150	79	50 - 150

[2]High surrogate recovery due to peak interference.

Sample: 69069 - BH-B (20-22')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20087	Date Analyzed:	2005-07-28	Analyzed By:	KB
Prep Batch:	17646	Sample Preparation:	2005-07-28	Prepared By:	KB

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	10	0.100	102	10 - 160
4-Bromofluorobenzene (4-BFB)		0.995	mg/Kg	10	0.100	100	10 - 174

Sample: 69070 - BH-B (25-27')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		138	mg/Kg	1	150	92	50 - 150

Sample: 69070 - BH-B (25-27')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.967	mg/Kg	10	0.100	97	10 - 160
4-Bromofluorobenzene (4-BFB)		1.00	mg/Kg	10	0.100	100	10 - 174

Sample: 69071 - BH-C (5-7')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		145	mg/Kg	1	150	96	50 - 150

Sample: 69071 - BH-C (5-7')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	10	0.100	108	10 - 160
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	10	0.100	112	10 - 174

Sample: 69072 - BH-C (10-12')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		130	mg/Kg	1	150	86	50 - 150

Sample: 69072 - BH-C (10-12')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/Kg	10	0.100	101	10 - 160

continued...

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)		1.03	mg/Kg	10	0.100	103	10 - 174

Sample: 69073 - BH-C (15-17')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		143	mg/Kg	1	150	95	50 - 150

Sample: 69073 - BH-C (15-17')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.992	mg/Kg	10	0.100	99	10 - 160
4-Bromofluorobenzene (4-BFB)		1.02	mg/Kg	10	0.100	102	10 - 174

Sample: 69074 - BH-C (20-22')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		125	mg/Kg	1	150	84	50 - 150

Sample: 69074 - BH-C (20-22')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	10	0.100	102	10 - 160
4-Bromofluorobenzene (4-BFB)		0.998	mg/Kg	10	0.100	100	10 - 174

Sample: 69075 - BH-D (10-12')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		113	mg/Kg	1	150	75	50 - 150

Sample: 69075 - BH-D (10-12')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.994	mg/Kg	10	0.100	99	10 - 160
4-Bromofluorobenzene (4-BFB)		0.981	mg/Kg	10	0.100	98	10 - 174

Sample: 69076 - BH-D (15-17')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		121	mg/Kg	1	150	80	50 - 150

Sample: 69076 - BH-D (15-17')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.915	mg/Kg	10	0.100	92	10 - 160
4-Bromofluorobenzene (4-BFB)		0.907	mg/Kg	10	0.100	91	10 - 174

Sample: 69077 - BH-D (20-22')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		117	mg/Kg	1	150	78	50 - 150

Sample: 69077 - BH-D (20-22')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.957	mg/Kg	10	0.100	96	10 - 160

continued ...

sample continued . . .

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)		0.967	mg/Kg	10	0.100	97	10 - 174

Sample: 69078 - BH-E (5-7')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		113	mg/Kg	1	150	75	50 - 150

Sample: 69078 - BH-E (5-7')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.896	mg/Kg	10	0.100	90	10 - 160
4-Bromofluorobenzene (4-BFB)		0.884	mg/Kg	10	0.100	88	10 - 174

Sample: 69079 - BH-E (10-12')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		116	mg/Kg	1	150	78	50 - 150

Sample: 69079 - BH-E (10-12')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.957	mg/Kg	10	0.100	96	10 - 160
4-Bromofluorobenzene (4-BFB)		0.921	mg/Kg	10	0.100	92	10 - 174

Sample: 69080 - BH-E (15-17')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		119	mg/Kg	1	150	79	50 - 150

Sample: 69080 - BH-E (15-17')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.801	mg/Kg	10	0.100	80	10 - 160
4-Bromofluorobenzene (4-BFB)		0.777	mg/Kg	10	0.100	78	10 - 174

Sample: 69081 - BH-E (20-22')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	20022	Date Analyzed:	2005-07-27	Analyzed By:	DS
Prep Batch:	17596	Sample Preparation:	2005-07-27	Prepared By:	DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		113	mg/Kg	1	150	75	50 - 150

Sample: 69081 - BH-E (20-22')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	20042	Date Analyzed:	2005-07-27	Analyzed By:	MT
Prep Batch:	17602	Sample Preparation:	2005-07-27	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.06	mg/Kg	10	0.100	106	10 - 160
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	10	0.100	105	10 - 174

Method Blank (1) QC Batch: 20022

Parameter	Flag	MDL Result	Units	RL
DRO		<12.0	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		101	mg/Kg	1	150	67	50 - 150

Method Blank (1) QC Batch: 20041

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00333	mg/Kg	0.001
Toluene		<0.00353	mg/Kg	0.001
Ethylbenzene		<0.00339	mg/Kg	0.001
Xylene		<0.0103	mg/Kg	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.965	mg/Kg	10	0.100	96	74.5 - 114
4-Bromofluorobenzene (4-BFB)		0.810	mg/Kg	10	0.100	81	36.6 - 112

Method Blank (1) QC Batch: 20042

Parameter	Flag	MDL Result	Units	RL
GRO		2.08	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	10	0.100	100	81.8 - 109
4-Bromofluorobenzene (4-BFB)		0.830	mg/Kg	10	0.100	83	50.7 - 113

Method Blank (1) QC Batch: 20087

Parameter	Flag	MDL Result	Units	RL
GRO		2.05	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	10	0.100	100	81.8 - 109
4-Bromofluorobenzene (4-BFB)		0.789	mg/Kg	10	0.100	79	50.7 - 113

Laboratory Control Spike (LCS-1) QC Batch: 20022

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	210	206	mg/Kg	1	250	<12.0	84	2	70 - 130	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	112	109	mg/Kg	1	150	75	73	50 - 150

Laboratory Control Spike (LCS-1) QC Batch: 20041

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	1.00	1.02	mg/Kg	10	0.100	<0.0333	100	2	79.8 - 114	20
Toluene	1.00	1.02	mg/Kg	10	0.100	<0.0353	100	2	79.7 - 115	20
Ethylbenzene	0.989	1.01	mg/Kg	10	0.100	<0.0339	99	2	78.7 - 116	20
Xylene	2.93	2.98	mg/Kg	10	0.300	<0.103	98	2	78.7 - 118	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.984	0.996	mg/Kg	10	0.100	98	100	76.6 - 114
4-Bromofluorobenzene (4-BFB)	0.933	0.948	mg/Kg	10	0.100	93	95	72 - 111

Laboratory Control Spike (LCS-1) QC Batch: 20042

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	9.03	9.70	mg/Kg	10	1.00	<0.381	90	7	72 - 124	21

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.925	0.961	mg/Kg	10	0.100	92	96	80.4 - 113
4-Bromofluorobenzene (4-BFB)	0.966	0.967	mg/Kg	10	0.100	96	97	72.2 - 119

Laboratory Control Spike (LCS-1) QC Batch: 20087

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	8.79	8.88	mg/Kg	10	1.00	<0.381	88	1	72 - 124	21

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.996	0.930	mg/Kg	10	0.100	100	93	80.4 - 113
4-Bromofluorobenzene (4-BFB)	0.872	0.924	mg/Kg	10	0.100	87	92	72.2 - 119

Matrix Spike (MS-1) QC Batch: 20022 Spiked Sample: 69069

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	226	228	mg/Kg	1	250	<12.0	90	1	70 - 130	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	110	117	mg/Kg	1	150	73	78	50 - 150

Matrix Spike (MS-1) QC Batch: 20041 Spiked Sample: 69031

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.849	0.965	mg/Kg	10	0.100	<0.0333	85	13	63.5 - 98.6	20
Toluene	0.885	0.997	mg/Kg	10	0.100	<0.0353	88	12	65.8 - 102	20
Ethylbenzene	0.946	1.06	mg/Kg	10	0.100	<0.0339	95	11	66.6 - 106	20
Xylene	2.84	3.19	mg/Kg	10	0.300	<0.103	95	12	67.4 - 108	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.869	0.833	mg/Kg	10	0.1	87	83	60.1 - 104
4-Bromofluorobenzene (4-BFB)	0.862	0.819	mg/Kg	10	0.1	86	82	63.1 - 105

Matrix Spike (MS-1) QC Batch: 20042 Spiked Sample: 69064

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	9.28	9.78	mg/Kg	10	1.00	<0.381	93	5	10 - 182	19.6

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.842	0.980	mg/Kg	10	0.1	84	98	10 - 160
4-Bromofluorobenzene (4-BFB)	0.944	1.09	mg/Kg	10	0.1	94	109	10 - 174

Matrix Spike (MS-1) QC Batch: 20087 Spiked Sample: 69069

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	[3]	8.87	11.2	mg/Kg	10	1.00	<0.381	89	23	10 - 182	19.6

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.769	0.822	mg/Kg	10	0.1	77	82	10 - 160
4-Bromofluorobenzene (4-BFB)	0.984	0.976	mg/Kg	10	0.1	98	98	10 - 174

Standard (ICV-1) QC Batch: 20022

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	194	78	75 - 125	2005-07-27

Standard (CCV-1) QC Batch: 20022

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	202	81	75 - 125	2005-07-27

Standard (CCV-2) QC Batch: 20022

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	225	90	75 - 125	2005-07-27

Standard (CCV-3) QC Batch: 20022

[3]Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	213	85	75 - 125	2005-07-27

Standard (ICV-1) QC Batch: 20041

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	85 - 115	2005-07-27
Toluene		mg/Kg	0.100	0.100	100	85 - 115	2005-07-27
Ethylbenzene		mg/Kg	0.100	0.0998	100	85 - 115	2005-07-27
Xylene		mg/Kg	0.300	0.296	99	85 - 115	2005-07-27

Standard (CCV-1) QC Batch: 20041

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0980	98	85 - 115	2005-07-27
Toluene		mg/Kg	0.100	0.0970	97	85 - 115	2005-07-27
Ethylbenzene		mg/Kg	0.100	0.0944	94	85 - 115	2005-07-27
Xylene		mg/Kg	0.300	0.279	93	85 - 115	2005-07-27

Standard (ICV-1) QC Batch: 20042

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.950	95	85 - 115	2005-07-27

Standard (CCV-1) QC Batch: 20042

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.910	91	85 - 115	2005-07-27

Standard (ICV-1) QC Batch: 20087

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.885	88	85 - 115	2005-07-28

Standard (CCV-1) QC Batch: 20087

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.10	110	85 - 115	2005-07-28

5072713

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: Plains
SITE MANAGER: Cindy Crain
PROJECT NO.: OSI 01-01-04
PROJECT NAME: Anadarko Penrose #1
PAGE 1 OF 1
LAB. PO #

PARAMETERS/METHOD NUMBER

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	TPH 8015M GRO DRO	BTEX 8021B		LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
7/25/05	0915		✓		BH-A (5-7')	1	✓		69064		
"	0921		✓		BH-A (10-12')	1	✓		65		
"	0929		✓		BH-A (15-17')	1	✓		66		
"	1032		✓		BH-B (10-12')	1	✓	✓	67		
"	1036		✓		BH-B (15-17')	1	✓	✓	68		
"	1045		✓		BH-B (20-22')	1	✓		69		
"	1058		✓		BH-B (25-27')	1	✓		70		
"	0950		✓		BH-C (5-7')	1	✓		71		
"	0956		✓		BH-C (10-12')	1	✓		72		
"	1005		✓		BH-C (15-17')	1	✓		73		
"	1010		✓		BH-C (20-22')	1	✓		74		
"	1121		✓		BH-D (10-12')	1	✓		75		
"	1130		✓		BH-D (15-17')	1	✓		76		
"	1135		✓		BH-D (20-22')	1	✓		77		
"	1147		✓		BH-E (5-7')	1	✓		78		
"	1154		✓		BH-E (10-12')	1	✓		79		
"	1158		✓		BH-E (15-17')	1	✓		80		
"	1205		✓		BH-E (20-22')	1	✓		81		

SAMPLED BY: (Signature) Cindy Crain DATE: 7/25/05 TIME: 1205
RELINQUISHED BY: (Signature) Cindy Crain DATE: 7/26/05 TIME: 1300
RECEIVED BY: (Signature) Helen Shelton DATE: 7/26/05 TIME: 1300

RELINQUISHED BY: (Signature) Helen Shelton DATE: 7/26/05 TIME: 1700
RECEIVED BY: (Signature) [illegible] DATE: 7/27/05 TIME: 9:40

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #: P1394539
HAND DELIVERED UPS OTHER: [illegible]

COMMENTS:

TURNAROUND TIME NEEDED: Standard

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

RECEIVING LABORATORY: Trace Analysis
ADDRESS:
CITY: Lubbock STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED: 4°C

LA CONTACT PERSON: C. Crain

SAMPLE TYPE: Soil

MA 18 samples - HS

5072713

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: Plains

SITE MANAGER: Cindy Crain

PROJECT NO.: OSI 01-01-04

PROJECT NAME: Anadarko Penrose #1

PAGE 1 OF 1

LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER: GRO DRO (TPH 8015M)	BTEX 8021B	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
7/25/05	0915		✓		BH-A (5-7')	1	✓		69064	
"	0921		✓		BH-A (10-12')	1	✓		65	
"	0929		✓		BH-A (15-17')	1	✓		66	
"	1032		✓		BH-B (10-12')	1	✓	✓	67	
"	1036		✓		BH-B (15-17')	1	✓	✓	68	
"	1045		✓		BH-B (20-22')	1	✓		69	
"	1058		✓		BH-B (25-27')	1	✓		70	
"	0950		✓		BH-C (5-7')	1	✓		71	
"	0956		✓		BH-C (10-12')	1	✓		72	
"	1005		✓		BH-C (15-17')	1	✓		73	
"	1010		✓		BH-C (20-22')	1	✓		74	
"	1121		✓		BH-D (10-12')	1	✓		75	
"	1130		✓		BH-D (15-17')	1	✓		76	
"	1135		✓		BH-D (20-22')	1	✓		77	
"	1147		✓		BH-E (5-7')	1	✓		78	
"	1154		✓		BH-E (10-12')	1	✓		79	
"	1158		✓		BH-E (15-17')	1	✓		80	
"	1205		✓		BH-E (20-22')	1	✓		81	

SAMPLED BY: (Signature) Cindy Crain — DATE: 7/25/05 TIME: 1205

RELINQUISHED BY: (Signature) Cindy Crain — DATE: 7/26/05 TIME: 1300

RECEIVED BY: (Signature) Helen Shelton — DATE: 7/26/05 TIME: 1300

RELINQUISHED BY: (Signature) Helen Shelton — DATE: 7/26/05 TIME: 1700

RECEIVED BY: (Signature) Jamal Jaynes — DATE: 7/27/05 TIME: 9:40

SAMPLE SHIPPED BY: (Circle)

FEDEX BUS AIRBILL #: 1394539

HAND DELIVERED UPS OTHER:

COMMENTS:

TURNAROUND TIME NEEDED: Standard

RECEIVING LABORATORY: Trace Analysis

ADDRESS:

CITY: Lubbock STATE: ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

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

SAMPLE CONDITION WHEN RECEIVED: 4°C

LA CONTACT PERSON: C. Crain

SAMPLE TYPE: Soil

MA 18 samples - 14S 7/29/05

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised March 17, 1999

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: All American Pipeline, L. P.	Contact: Wayne E. Roberts E-mail: weroberts@paalp.com
Address: 1301 S county Road 1150, Midland, TX 79706-4476	Telephone No.: (432) 682-5392
Facility Name: Anadarko Langley Mattix Penrose Unit 1	Facility Type: Gathering Pipeline Pump (Field Unit)

Surface Owner: Larry Strain (505) 390-4246	Mineral Owner: Miller-Deck Estates	Lease No.: N/A

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County:
P	29	22S	37E					Lea

Directions to release site: (5 miles south of Eunice, NM) West on Loop 18 to King Road; 1.5 mile south on King Road to lease road; south on lease road for 0.40 mile to Unit. **Site is on BLM Land and requires an archaeological study before beginning remediation activity.**

NATURE OF RELEASE

Type of Release: **Crude Oil; 32°-35° API Gravity**	Volume of Release: **200 Bbls.**	Volume Recovered: **0.00 Bbls.**
Source of Release: Gathering System Pipeline Pump	Date and Hour of Occurrence: **19:00 CST 01/06/2004**	Date and Hour of Discovery: **20:45 CST 01/06/2004**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Called in to Wayne E. Roberts; Roberts notified NMOCD 01/07/2004**	
By Whom? **Lanny Wood, WTN Field Supervisor**	Date and Hour: 0900 CST 01/07/2004	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully. *

N/A

Describe Cause of Problem and Remedial Action Taken. *

Pipe nipple on pump case failed due to internal corrosion: oil was released when gauger turned on tank for field unit injection. Pump piping was replaced. **Pressure at this injection point runs 40 to 60 psig.**

Describe Area Affected and Cleanup Action Taken. *

All free oil has been removed; the area of contamination is irregular,approximately 200' X 100'. The area of contamination is the affected area with more than 1.0% by weight total petroleum hydrocarbons (TPH).

At a minimum, all soil containing over 1.0% by weight total petroleum hydrocarbons will be brought to the surface for remediation (on-site bioremediation). Soil in the affected area will be mixed with ambient or other soil to achieve a uniform mixture that meets or exceeds NMOCD rules and regulations (NMAC) for contaminated soil remediation, **pending verification that this site is not a protected New Mexico archaeological site or inventoried in the BLM New Mexico cultural program.**

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: Wayne E. Roberts	OIL CONSERVATION DIVISION	
Printed Name: Wayne E. Roberts	Approved by District Supervisor:	
Title: Director, Environmental & Regulatory Compliance	Approval Date:	Expiration Date:
Date: 01/07/2004 Phone: (432) 682-5392	Conditions of Approval:	Attached ☐

* Attach Additional Sheets If Necessary