

1R - 293

REPORTS

DATE:

2002 - 1999



7/22/02

RECEIVED

July 19, 2002

AUG 27 2002

Mr. Larry Johnson
Environmental Engineer
New Mexico Oil Conservation Division
1625 French Drive
Hobbs, New Mexico 88240

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Re: Sample Depths and Location Drawing, Former Texaco Exploration and Production Inc. McKinley Lease Production Facility, Unit Letter A (NE/4, NE/4), Section 30, Township 18 South, Range 38 East, Lea County, New Mexico

Dear Mr. Johnson:

Per your request, please find enclosed Table 1 that gives depths for samples collected during remediation activities at the above-referenced facility. Figure 1 show the locations for the final samples, which are presented in bold type on Table 1. Please call Mr. Robert Patterson with ChevronTexaco at (915) 687-7100 or myself at (915) 687-0901 if you have questions.

Sincerely,

Larson and Associates, Inc.

A handwritten signature in black ink, appearing to read "Mark J. Larson".

Mark J. Larson, CPG, CGWP
President

Encl.

cc: Robert Patterson

Table 1: Summary of BTEX and TPH Analyses of Soil Samples
Texaco Exploration and Production Inc., McKinley Lease

Lea County, New Mexico

Area	Sample Date	Sample Number	Depth (Ft BGS)	Location	DRO mg/kg	GRO mg/kg	TPH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylene mg/kg	Total BTX mg/kg
1	31-Jan-02	1	12	Bottom	<10	44	44	--	--	--	--	--
		2	8	West	<10	<10	<20	--	--	--	--	--
		3	8	East	334	1590	1924	--	--	--	--	--
		4	8	North	<10	30	30	--	--	--	--	--
		5	8	South	192	958	1150	--	--	--	--	--
06-Feb-02		6	8	South	<10	186	186	--	--	--	--	--
		7	8	East	124	905	1029	--	--	--	--	--
26-Feb-02		8	10	South-West End	<10	92	92	--	--	--	--	--
		9	8	South-East End	2460	6590	9050	--	--	--	--	--
		10	8	East End	<50	279	279	--	--	--	--	--
		11	6	North-East End	650	2810	3460	--	--	--	--	--
		12	10	Bottom-East End	1410	4930	6340	--	--	--	--	--
06-Mar-02		13	6	North-East End	100	684	784	--	--	--	--	--
		14	12	Bottom-East End	69	549	618	--	--	--	--	--
		15	8	East End	111	476	587	--	--	--	--	--
		16	8	South-East End	408	1560	1968	--	--	--	--	--
		17	8	Bench-East End	<10	39	39	--	--	--	--	--
06-May-02		56	8	North-East End	<10	<10	<20	--	--	--	--	--
		57	8	East End	37.8	<10	37.8	--	--	--	--	--
		58	8	South-East End	47.1	<10	47.1	--	--	--	--	--
10-May-02		59	16	Southwest-Bottom	<10	<10	<20	--	--	--	--	--
		60	15	Southeast-Bottom	<10	<10	<20	--	--	--	--	--

Notes:

1. mg/kg Milligrams kilogram
2. <; Less than t method
3. --; No data available

Table 1: Summary of BTEX and TPH Analysis of Soil Samples
Texaco Exploration and Production, Inc., McKinley Lease
Lea County, New Mexico

Area	Sample Date	Sample Number	Depth (Ft BGS)	Location	GRO mg/kg	DRO mg/kg	TPH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylene mg/kg	Total BTEX mg/kg
2	06-Feb-02	18	8	East	<10	33	33	--	--	--	--	--
		19	12	Bottom-East	<50	245	245	--	--	--	--	--
		20	8	South	<100	529	529	--	--	--	--	--
		21	8	West	<100	12700	12700	--	--	--	--	--
		22	15	West-Bottom	<100	3250	3250	--	--	--	--	--
		23	8	North	<10	25	25	--	--	--	--	--
		24	8	Northwest	<100	672	672	--	--	--	--	--
		25	8	West	<10	974	974	--	--	--	--	--
		26	15	Bottom-Southwest	286	2380	2666	--	--	--	--	--
		27	10	Southwest	1830	5760	7590	--	--	--	--	--
28	12-Feb-02	8	Northwest	<10	<10	<10	<20	--	--	--	--	--
		9	12	Bottom-East	<50	1090	1090	--	--	--	--	--
		10	15	Bottom-East	<10	85.6	85.6	--	--	--	--	--
		11	8	West	333	5300	5633	--	--	--	--	--
		12	12	West-Southwest	<10	31.6	31.6	--	--	--	--	--
		13	12	End-Southwest	<10	17.4	17.4	--	--	--	--	--
		14	18	Bottom-Southwest	24.1	133	157.1	--	--	--	--	--
		15	12	East-Southwest	113	501	614	--	--	--	--	--
		16	8	West	962	4770	5732	--	--	--	--	--
		17	20	Bottom-Southwest	28	309	337	--	--	--	--	--
06-Mar-02		18	8	East-Southwest	1610	3100	4710	--	--	--	--	--
		19	6	West-North	354	3380	3734	--	--	--	--	--
		20	8	West	<10	68.5	68.5	--	--	--	--	--
		21	8									

Notes:

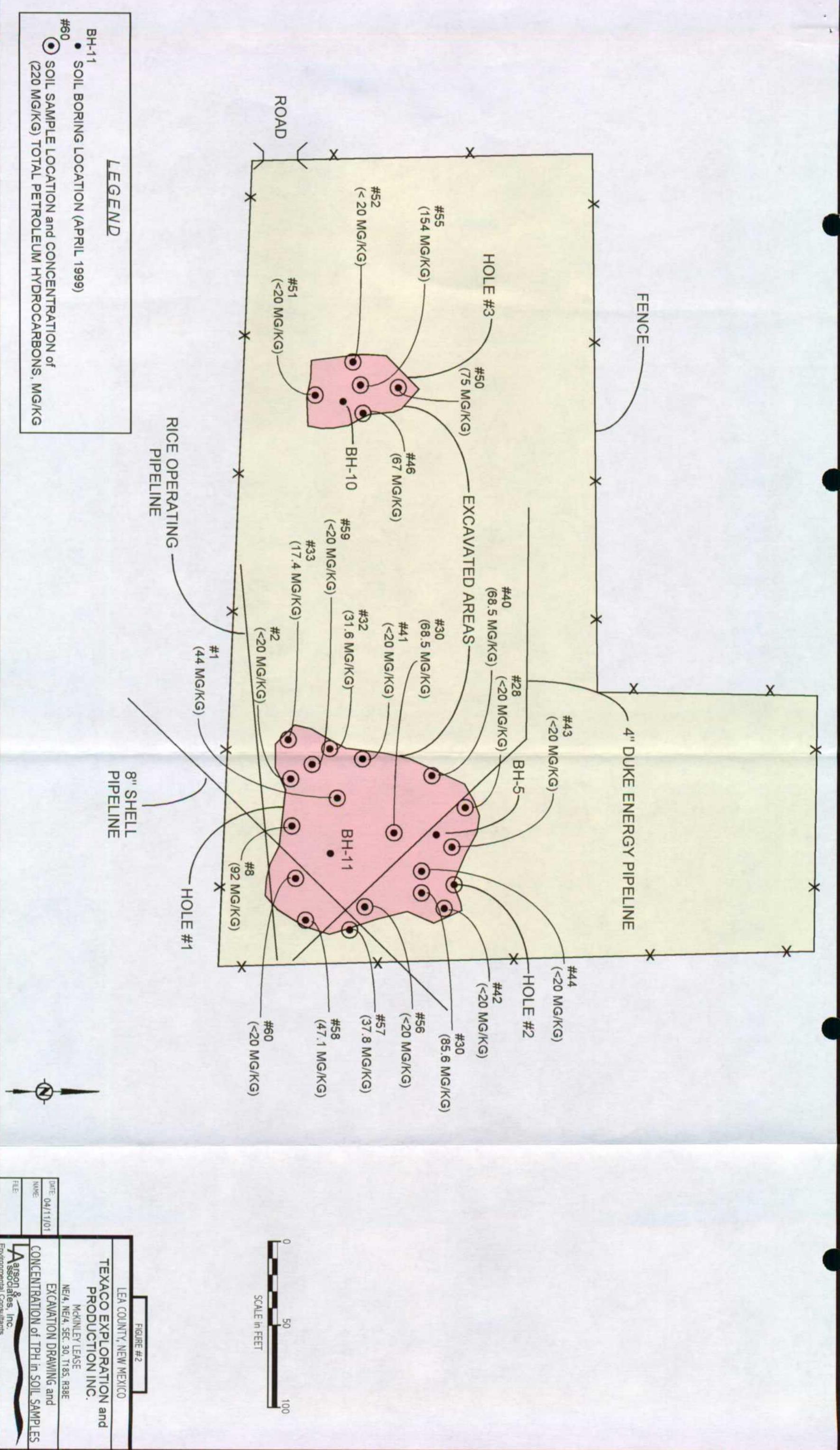
1. mg/Kg Milligrams kilogram
2. < Less than method
3. -- No data available

Table 1: Summary of BTEX and TPH Analysis of Soil Samples
 Texaco Exploration and Production Inc., McKinley Lease
 Lea County, New Mexico

Area	Sample Date	Sample Number	Depth (Ft BGS)	Location	GRO mg/kg	DRO mg/kg	TPH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylene mg/kg	Total BTEX mg/kg
(Cont.)	21-Mar-02	41	12	West-Southwest	<10	<10	<20	--	--	--	--	--
	28-Mar-02	42	8	East	<10	<10	<20	--	--	--	--	--
		43	15	Bottom-Northeast	<10	<10	<20	--	--	--	--	--
		44	10	Northwest	<10	<10	<20	--	--	--	--	--
3	06-Feb-02	45	8	North	916	4010	4926	<0.025	0.220	1.44	6.164	7.824
		46	8	East	<10	67	67	--	--	--	--	--
	06-Feb-02	47	8	South	70	524	594	--	--	--	--	--
		48	8	West	435	1960	2395	--	--	--	--	--
		49	18	Bottom	1090	2710	3800					
	12-Feb-02	50	12	North	<10	75	75	--	--	--	--	--
		51	12	South	<10	<10	<20	--	--	--	--	--
		52	12	West	<10	<10	<20	--	--	--	--	--
		53	23	Bottom	<10	126	126	--	--	--	--	--
	26-Feb-02	54	25	Bottom	<10	184	184	--	--	--	--	--
	06-Mar-02	55	27	Bottom	<10	154	154	--	--	--	--	--

Notes:

1. mg/kg Milligrams kilogram
2. < Less than tc method
3. -- No data available



LEA COUNTY, NEW MEXICO
TEXACO EXPLORATION and
PRODUCTION INC.
MCKINLEY LEASE
NE1/4, NE1/4 SEC. 30, T18S, R38E
EXCAVATION DRAWING and
NAME: DATE: 04/11/01
FILE: CONCENTRATION of TPH in SOIL SAMPLES
Larson & Associates, Inc. Environmental Consultants



January 28, 2002

VIA FACSIMILE: (505) 393-0720

Mr. Paul Sheeley
New Mexico Oil Conservation Division
1625 French Drive
Hobbs, New Mexico 88240

RECEIVED

AUG 27 2002

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Re: Proposed Soil Remediation at Former Texaco Exploration and Production Inc. McKinley Lease Production Facility, Unit Letter A, Section 30, Township 18 South, Range 38 East, Lea County, New Mexico

Dear Mr. Sheeley:

Texaco Exploration and Production Inc. (Texaco) has directed Larson and Associates, Inc. (LA) to prepare a work plan for submittal to the New Mexico Oil Conservation Commission (NMOCD) for remediation of soil at a former oilfield production facility (Site) located in Unit Letter A, Section 30, Township 18 South, Range 38 East, Lea County, New Mexico. The Site is located on property belonging to the estate of Flo Davis. On January 25, 2002, the NMOCD visited the Site, and made a verbal request for the work plan.

Background

In October 1999, Mr. Hugh L (Jim) Davis requested Texaco to perform an environmental assessment to determine if soils had been impacted by the former operations. The Site is currently leased to DPC Industries, Inc. for storing chemical used in commercial and municipal water treatment facilities. On October 19 – 21, 1999, twelve (12) borings (BH-1 through BH-12) were drilled at the Site and a background location approximately 350 northwest of the Site. The borings were drilled using a truck-mounted air rotary rig, and were advanced to approximately 30 feet below ground surface. Soil samples were collected using a split-spoon sampler, and field screened for organic contaminants using a photoionization detector (PID) in accordance with NMOCD procedures ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"). The samples exhibiting headspace readings above 100 parts per million (ppm) were analyzed for benzene, toluene, ethylbenzene and xylenes (collectively referred to as BTEX) using EPA method SW-846-8021B. The sample with the highest PID reading and bottom sample from each boring were also analyzed for total petroleum hydrocarbons (TPH) by EPA method SW-846-8015B for gasoline range organics (GRO) and diesel range organics (DRO), and chloride. Table 1 presents a summary of the laboratory analyses. Attachment A presents the laboratory report. Figure 1 presents a Site drawing, and locations of borings, pipelines, and chemical storage.

Mr. Paul Sheeley
January 28, 2002
Page 2

The investigation revealed three (3) locations (BH-5, BH-10 and BH-11) where TPH and BTEX were reported above the test method detection limits. The highest chloride value was 270 mg/kg, and was reported in the sample from boring BH-8, 5 to 6 feet BGS.

Proposed Remediation

Texaco and representatives of the estate of Flo Davis have agreed that Texaco will remediate soil at the three (3) locations (BH-5, BH-10 and BH-11) where TPH and BTEX were detected above the test method detection limits. The soils will be excavated to reduce TPH levels below 100 mg/kg, and transported to Texaco's permitted land farm located northwest of Jal, New Mexico. Confirmation samples will be collected from the excavated areas, and will be analyzed for TPH using method 8015B. The excavated areas will be filled with clean soil, and graded. The remediation activity is scheduled to begin on January 30, 2002.

Please call Mr. Robert Patterson with ChevronTexaco at (915) 687-7100 or myself at (915) 687-0901 if you have questions.

Sincerely,

Larson and Associates, Inc.



Mark J. Larson, CPG, CGWP
President

Encl.

cc: Robert Patterson

TABLES

Table 1:
Summary of BTEX, TPH and Chloride Analysis from Soil Samples
Texaco Exploration and Production, Inc.
McKinley Lease (Abandoned), Lea County, New Mexico

Soil Boring	Sample Depth (ft)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
BH-1	5-6	10/19/99	-	-	-	-	<5	<50	<55	80
	30-31	-	-	-	-	-	<5	<50	<55	31
BH-2	20-21	10/19/99	-	-	-	-	<5	<50	<55	13
	30-31	-	-	-	-	-	<5	<50	<55	11
BH-3	20-21	10/19/99	-	-	-	-	<5	82	82	23
	30-31	-	-	-	-	-	<5	<50	<55	15
BH-4	20-21	10/20/99	-	-	-	-	<5	<50	<55	13
	30-31	-	-	-	-	-	<5	<50	<55	64
BH-5	5-6	10/20/99	-	-	-	-	9.8	678	687.8	-
	10-11	<0.05	0.073	0.13	0.485	47.1	1400	1447.1	18	
	20-21	-	-	-	-	-	8.8	<50	8.8	-
BH-6	30-31	-	-	-	-	-	<5	<50	<55	12
	15-16	10/20/99	-	-	-	-	<5	<50	<55	77
	30-31	-	-	-	-	-	<5	<50	<55	33
BH-7	5-6	10/20/99	-	-	-	-	<5	<50	<55	28
	30-31	-	-	-	-	-	<5	<50	<55	1.5
BH-8	5-6	10/20/99	-	-	-	-	<5	<50	<55	270
	30-31	-	-	-	-	-	<5	<50	<55	60
BH-9	10-11	10/20/99	-	-	-	-	<5	<50	<55	21
	30-31	-	-	-	-	-	<5	<50	<55	12

Notes:

Analyses by Trace Analyses, Inc., Lubbock, Texas

1. (ft.): Feet below ground surface

2. (mg/kg): Milligrams per kilogram

3. GRO: Gasoline Range Hydrocarbons

4. DRO Diesel Range Hydrocarbons

5. TPH: Total Petroleum Hydrocarbons (GRO & DRO)

6. <: Concentration less than test method detection limits

7. -: No data available

Table 1:
(continued) Summary of BTEX, TPH and Chloride Analysis from Soil Samples
Texaco Exploration and Production, Inc.
McKinley Lease (Abandoned), Lea County, New Mexico

Soil Boring	Sample Depth (ft)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
BH-10	5-6	10/21/99	<0.05	0.133	0.315	-	13.6	387	400.6	-
	10-11	-	-	-	-	1.01	102	1730	1832	12
	15-16	-	-	-	-	-	558	1920	2478	-
	30-31	-	-	-	-	<5	<50	<55	<55	11
BH-11	0-1	10/21/99	<0.05	<0.05	<0.05	-	12.4	66	78.4	-
	5-6	-	-	-	0.214	41.7	1540	1581.7	22	
	10-11	-	-	-	-	277	<50	277	-	
	30-01	-	-	-	-	<5	<50	<55	190	
BH-12	5-6	10/21/99	-	-	-	-	<5	<55	66	
	30-31	-	-	-	-	-	-	-	57	

Notes:

Analyses by Trace Analyses, Inc., Lubbock, Texas

1. (ft): Feet below ground surface

2. (mg/kg): Milligrams per kilogram

3. GRO: Gasoline Range Hydrocarbons

4. DRO Diesel Range Hydrocarbons

5. TPH: Total Petroleum Hydrocarbons (GRO & DRO)

6. <: Concentration less than test method detection limits

7. -: No data available

Table 2: Summary to BTEX and MTBE Analyses of Groundwater Samples from Water Wells
Texaco Exploration and Production, Inc.
McKinley Lease (Abandoned), Lea County, New Mexico

Sample	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	MTBE (mg/L)
WW-1	10/20/99	<0.005	<0.005	<0.005	<0.005	<0.005
WW-2	10/20/99	<0.005	<0.005	<0.005	<0.005	<0.005

Notes: Analyses by Trace Analysis, Inc., Lubbock, Texas

1. (mg/L): Milligrams per liter

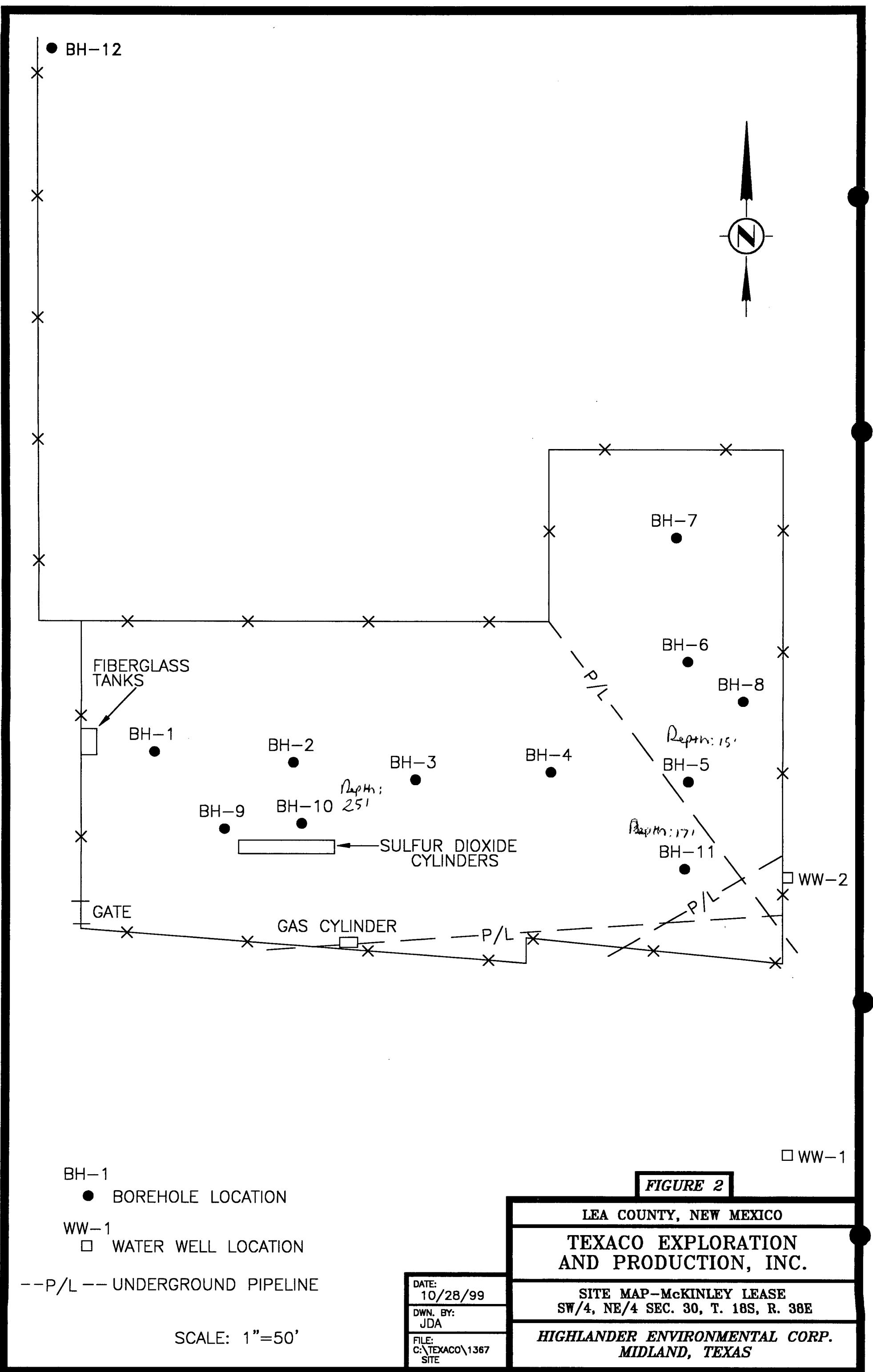
2. <: Concentration less than test method detection limit

Table 3:
Summary of General Chemistry Analyses of Groundwater Samples from Water Wells
Texaco Exploration and Production, Inc.
McKinley Lease (Abandoned), Lea County, New Mexico

Sample	Sample Date	Bromide (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate as N (mg/L)	Potassium (mg/L)	Magnesium (mg/L)	Calcium (mg/L)	Sodium (mg/L)	Hardness (mg/L)	Alkalinity (mg/L)	TDS (mg/L)	pH (S.U.)
WW-1	10/20/99	<10	190	130	8.5	5.5	19	133	105	410	240	660	6.9
WW-2	10/20/99	-	120	110	4.0	6.5	22	123	58	398	228	580	6.8

Notes: Analysis by Trace Analysis, Inc, Lubbock, Texas

1. (mg/L): Milligrams per liter
2. (S.U.): Standard Units
3. -: No data available





NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

*Donna
Complaint
file*

Gary Johnson

GOVERNOR

Jennifer A. Salisbury

CABINET SECRETARY

11/22/99

To: Roger Anderson, OCD Environmental Bureau Chief
From: Chris Williams, District 1 Supervisor *Ch*
Date: 11/22/99
Subject: Testing done on abandoned Texaco McKinley lease location-West Hobbs-James Davis property

MEMORANDUM

Roger, this is the complaint that we discussed in the environmental meeting on Friday 11/19/99. Mr. Davis had been working with Texaco on this project. Dyke Browning with Compliance Services as a favor to Mr. Davis split samples with Texaco when the borehole samples were taken. The samples were put in a cooler and transported to Mr. Browning refrigeration area. The samples were then taken to Cardinal for analysis. On borehole #5 there is a marked difference in the TPH levels between Texaco's lab and Cardinals it makes the readings somewhat suspect. We were not present when the sampling was done nor notified that it was going to take place. We also have no record of this ever being presented to us as a problem until now. We need suggestions on what course should be pursued. Thanks Chris

Table 1:
Summary of BTEX, TPH and Chloride Analysis from Soil Samples
Texaco Exploration and Production, Inc.
McKinley Lease (Abandoned), Lea County, New Mexico

Soil Boring	Sample Depth (ft)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethybenzene (mg/kg)	Xylenes (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
BH-1	5-6	10/19/99	-	-	-	-	<5	<50	<55	80
	30-31						<5	<50	<55	31
BH-2	20-21	10/19/99	-	-	-	-	<5	<50	<55	13
	30-31						<5	<50	<55	11
BH-3	20-21	10/19/99	-	-	-	-	<5	82	82	23
	30-31						<5	<50	<55	15
BH-4	20-21	10/20/99	-	-	-	-	<5	<50	<55	13
	30-31						<5	<50	<55	64
BH-5	5-6	10/20/99	<0.05	0.073	0.13	0.485	47.1	1400	1447.1	18
	20-21			-	-	-	8.8	<50	8.8	-
	30-31			-	-	-	<5	<50	<55	12
BH-6	15-16	10/20/99	-	-	-	-	<5	<50	<55	77
	30-31			-	-	-	<5	<50	<55	33
BH-7	5-6	10/20/99	-	-	-	-	<5	<50	<55	28
	30-31			-	-	-	<5	<50	<55	15
BH-8	5-6	10/20/99	-	-	-	-	<5	<50	<55	270
	30-31			-	-	-	<5	<50	<55	60
BH-9	10-11	10/20/99	-	-	-	-	<5	<50	<55	21
	30-31			-	-	-	<5	<50	<55	12

Notes: Analyses by Trace Analyses, Inc., Lubbock, Texas

1. (ft): Feet below ground surface
2. (mg/kg): Milligrams per kilogram
3. GRO: Gasoline Range Hydrocarbons
4. DRO: Diesel Range Hydrocarbons
5. TPH: Total Petroleum Hydrocarbons (GRO & DRO)
6. <: Concentration less than test method detection limits
7. -: No data available

Table 1:
 (continued) Summary of BTEX, TPH and Chloride Analysis from Soil Samples
 Texaco Exploration and Production, Inc.
 McKinley Lease (Abandoned), Lea County, New Mexico

Soil Boring	Sample Depth (ft)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
BH-10	5-6	10/21/99	-	-	-	-	13.6	387	400.6	-
	10-11	-	<0.05	0.133	0.315	1.01	102	1730	1832	12
	15-16	-	-	-	-	-	553	1920	2478	-
BH-11	30-31	-	-	-	-	-	<5	<50	<55	11
	0-1	10/21/99	-	-	-	-	12.4	417	78.4	-
	5-6	-	<0.05	<0.05	<0.05	0.214	667	1540	1581.7	22
BH-12	10-11	-	-	-	-	-	277	<50	277	-
	30-01	-	-	-	-	-	<5	<50	<55	190-
BH-12	5-6	10/21/99	-	-	-	-	<5	<5	<55	66
	30-31	-	-	-	-	-	-	-	-	57

Notes: Analyses by Trace Analyzers, Inc., Lubbock, Texas

1. (ft): Feet below ground surface
2. (mg/kg): Milligrams per kilogram
3. GRO: Gasoline Range Hydrocarbons
4. DRO: Diesel Range Hydrocarbons
5. TPH: Total Petroleum Hydrocarbons (GRO & DRO)
6. <: Concentration less than test method detection limits
7. -: No data available

**Table 2: Summary to BTEX and MTBE Analyses of Groundwater Samples from Water Wells
Texaco Exploration and Production, Inc.
McKinley Lease (Abandoned), Lea County, New Mexico**

Sample	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	MTBE (mg/L)
WW-1	10/20/99	<0.005	<0.005	<0.005	<0.005	<0.005
WW-2	10/20/99	<0.005	<0.005	<0.005	<0.005	<0.005

Notes: Analyses by Trace Analysis, Inc., Lubbock, Texas

1. (mg/L): Milligrams per liter
2. <: Concentration less than test method detection limit

Table 3:
Summary of General Chemistry Analyses of Groundwater Samples from Water Wells
Texaco Exploration and Production, Inc.
McKinley Lease (Abandoned), Lea County, New Mexico

Sample	Sample Date	Bromide (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate as N (mg/L)	Potassium (mg/L)	Magnesium (mg/L)	Calcium (mg/L)	Sodium (mg/L)	Hardness (mg/L)	Alkalinity (mg/L)	TDS (mg/L)	pH (S.U.)
WW-1	10/20/99	<10	190	130	8.5	5.5	19	133	105	410	240	660	6.9
WW-2	10/20/99	-	120	110	4.0	6.5	22	123	59	398	228	580	6.8

Notes: Analysis by Trace Analysis, Inc. Lubbock, Texas

1. (mg/L): Milligrams per liter
2. (S.U.): Standard Units
3. -: No data available



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
COMPLIANCE SERVICES
ATTN: DYKE BROWNING
P.O. BOX 2734
HOBBS, NM 88241
FAX TO: (505) 397-1471

Receiving Date: 10/20/99

Reporting Date: 10/21/99

Project Number: NOT GIVEN

Project Name: J. DAVIS PHASE II

Project Location: NOT GIVEN

Sampling Date: 10/20/99

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: BC

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/Kg)	DRO 10-C ₂₈) (mg/Kg)
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ANALYSIS DATE:	10/20/99	10/20/99
H4403-1 BH2@20'	<50	<50
H4403-2 BH3@20'	<50	<50
H4403-3 BH5@5'	<50	3382
Quality Control	1040	1050
True Value QC	1000	1000
% Recovery	104	105
Relative Percent Difference	3.3	3.3

METHOD: SW-846 8015 M

Jeffrey L. Rohr
Chemist

10/21/99
Date

H4403.XLS

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 client for 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 thirty (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.

