

GW - 29

REPORTS

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OIL CONSERVATION
DIVISION

February 12, 2004

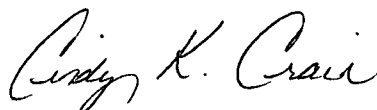
Mr. Wayne Price
Environmental Bureau
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Groundwater Investigation Report, Buckeye Compressor Station (GW-029),
Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East,
Lea County, New Mexico**

Dear Mr. Olson:

Please find enclosed a copy of the above-referenced report. The report is submitted on behalf of ChevronTexaco Exploration and Production, and presents the results of groundwater monitoring conducted by Larson and Associates, Inc. Please call Rodney Bailey at (432) 687-7251 or myself at (432) 687-0901 if you have questions.

Sincerely,
Larson and Associates, Inc.



Cindy K. Crain, CPG

cc: Mr. Rodney Bailey – ChevronTexaco
Mr. Cal Wrangham - Dynegey
Mr. Paul Sheeley – NMOCD, Hobbs District

Price, Wayne

From: Price, Wayne
Sent: Tuesday, June 01, 2004 3:07 PM
To: Mark Larson (E-mail)
Cc: Sheeley, Paul; Johnson, Larry
Subject: Buckeye Compressor GW-029

OCD is in receipt of the Groundwater Investigation Report and hereby approves of the Plan. Please submit the proposed remediation plan by August 15, 2004.

Please be advised that NMOCD approval of this plan does not relieve (ChevronTexaco or Dynegy) of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (ChevronTexaco or Dynegy) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3487
fax: 505-476-3462
E-mail: WPRICE@state.nm.us

February 12, 2004

Mr. Wayne Price
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: Groundwater Investigation Report, Buckeye Compressor Station (GW-029), Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East, Lea County, New Mexico

Dear Mr. Price:

ChevronTexaco Inc. (ChevronTexaco), as successor company to Texaco Exploration and Production Inc. (Texaco), and former operator of the Buckeye Compressor Station (Site), has retained Larson and Associates, Inc. (LA) to investigate the source and extent of dissolved benzene that was reported in a sample from a well at the Site. The benzene impact was detected during renewal of the groundwater discharge plan (GW-029). An initial investigation was performed by LA from June 4, 2002, to June 14, 2002. The results of that investigation were submitted to the New Mexico Oil Conservation Division (NMOCD) in a report dated August 15, 2002, and included a proposal to install additional monitoring wells to delineate the limits of the dissolved benzene plume. A Groundwater Investigation Report, dated November 18, 2002, detailing the installation of additional monitoring wells (MW-9 through MW-15), was submitted to the NMOCD. The November 18, 2002 report included a proposal to install additional monitoring wells. This report delivers the results of the additional investigation proposed in the November 18, 2002 report. Figure 1 presents a Site location and topographic map. Figure 2 presents site details, and proposed monitoring well locations.

Current Investigation

Six additional monitoring wells (MW-16 through MW-21) were installed at the Site from October 13, 2003 to October 16, 2003, in accordance with the proposal dated November 18, 2002. Scarborough Drilling, Inc. used an air rotary drilling rig to drill the monitoring wells. Soil samples were not collected during the monitoring well installations since no wells were installed at locations considered sources, but for up gradient and down gradient plume delineation.

The monitoring wells were constructed with a threaded 2-inch schedule 40 PVC well screen and riser. The well screen, approximately 20 feet in length, was placed above and below the groundwater level observed in monitoring wells previously installed at the Site (MW-1 through MW-15). Graded silica sand was placed around the well screen to approximately three feet above the screen. Approximately three feet of bentonite chips was placed above the sand, and hydrated with potable water. The remainder of the annulus was filled with cement and bentonite grout to about 1 foot bgs. Each well is secured with a locking above-grade cover, anchored in a concrete pad measuring approximately 3 X 3 feet. An electric submersible pump was used to develop the wells until groundwater was visibly clear of sediment. A professional land surveyor (Piper Surveying Company), registered in the State of New Mexico, surveyed the new wells for top-of-casing and ground elevation. Table 1 presents a summary of monitoring well drilling and

completion details. Figure 2 shows the monitoring well locations. Appendix A presents the monitoring well completion records.

Depth to groundwater was measured in the existing wells (MW-1 through MW-15) on August 11, 2003, and in the new wells (MW-16 through MW-21) on October 22, 2003. The depths to groundwater measurements are presented in Table 2.

Groundwater samples were collected from monitoring wells MW-1 through MW-15 from August 11, 2003 to August 13, 2003, and were analyzed for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX). Groundwater samples were collected from monitoring wells MW-16 through MW-21 on October 22 and 23, 2003, and were analyzed for BTEX, RCRA 7 total metals, anions, cations and total dissolved solids (TDS). Groundwater samples were also collected from existing monitoring wells (TW-11 and TW-13) to supplement data from the new wells for plume delineation. Samples were collected for wells TW-11 and TW-14 on November 21, 2003, and analyzed for BTEX. Table 3 provides a summary of the BTEX analyses of groundwater samples. Table 4 provides a summary of the metals analyses of groundwater samples. Table 5 provides a summary of the anions, cations and TDS analyses of groundwater samples. Appendix B presents the laboratory data and chain of custody documentation.

Investigation Results

The elevation of the groundwater surface ranged from 3861.07 feet above mean sea level (AMSL) at well MW-20 (up gradient) to 3859.71 feet AMSL at well MW-17 located east of the Site. Groundwater flow was generally from west to east at a gradient of approximately 0.001 feet per foot. Figure 3 presents a groundwater potentiometric surface map for August 11, 2003 and October 22, 2003.

The groundwater sample analyses were compared to the human health standards established by the New Mexico Water Quality Control Commission (NMWQCC). Dissolved benzene exceeded the NMWQCC human health standard of 0.01 mg/L in the following samples:

<u>Well</u>	<u>Benzene (mg/L)</u>
MW-1	0.0555
MW-2	0.947
MW-3	3.30
MW-4	2.39
MW-5	0.361
MW-6	1.63
MW-7	0.241
MW-8	0.673
MW-9	0.083
MW-10	0.060
MW-13	0.060
MW-14	1.65
MW-18	0.07
MW-19	1.99

Mr. Wayne Price
February 12, 2004
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Figure 4 presents an isopleth map for benzene. Referring to Figure 4, isopleth contours for benzene indicate two (2) apparent sources, with migration in an easterly direction, off the Site boundary. The limits of dissolved benzene in groundwater up gradient (west) and downgradient (east) were not determined during the current investigation. Dissolved toluene exceeded the NMWQCC human health standard of 0.75 mg/L in the groundwater samples obtained from MW-3 (1.13 mg/L). All other toluene, ethylbenzene and xylene levels were below the human health standards established by the NMWQCC.

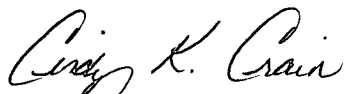
Referring to Table 4, all groundwater samples collected from the new monitoring wells (MW-16 through MW-21) showed concentrations of metals below the NMWQCC standards. Referring to Table 5, all groundwater samples collected from the new monitoring wells (MW-16 through MW-21) showed concentrations of anions and cations below any listed NMWQCC standard, except the sample from MW-17, which showed a chloride concentration of 292 mg/L and a TDS concentration of 1,090 mg/L.

Proposed Additional Investigation

ChevronTexaco proposes to install two additional monitoring wells (MW-22 and MW-23) to delineate the limits of the dissolved benzene plume east and west of the Site, at approximate locations shown on Figures 2 and 4. The wells will be installed in accordance with procedures described in the work plan dated April 12, 2002. Soil samples will be collected during drilling for headspace analysis, and possible laboratory analysis according to NMOCD guidelines. Groundwater samples will be collected from the new and existing wells (MW-1 through MW-23) for BTEX analysis. A final report will be submitted to the NMOCD that includes boring and well completion logs, laboratory reports, groundwater flow map, isopleth map for benzene, and proposed remediation plan.

Please call Mr. Rodney Bailey at (432) 687-7100 or myself at (432) 687-0901 if you have questions. We may also be contacted by e-mail at bailerg@chevrontexaco.com, or Cindy@Laenvironmental.com.

Sincerely,
Larson & Associates, Inc.



Cindy K. Crain, CPG

Encl.

Cc: Mr. Rodney G. Bailey – ChevronTexaco
Mr. Cal Wrangham – Dynegy
Mr. Paul Sheeley – NMOCD, Hobbs District

TABLES

TABLES

Table 1:

Summary of Monitoring Well Drilling and Completion Details
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Well Number	Date Drilled	Ground Elevation (Feet AMSL)	Top of Casing Elevation (Feet AMSL)	Drilled Depth (Feet BGS)	Well Depth (Feet TOC)	Well Diameter (Inches)	Screen Interval (Feet BGS)	Depth to Groundwater 10/8/02 (Feet TOC)
MW-1	6/10/2002	3988.48	3990.85	140.0	142.09	2	122.47 - 142.09	132.26
MW-2	6/11/2002	3988.71	3991.08	140.0	142.37	2	123.27 - 142.89	132.46
MW-3	6/12/2002	3989.65	3991.75	140.0	142.34	2	123.72 - 143.34	133.19
MW-4	6/13/2002	3989.25	3991.57	140.0	142.32	2	122.47 - 142.09	133.83
MW-5	6/14/2002	3989.68	3993.12	143.0	146.44	2	125.97 - 145.59	133.73
MW-6	6/12/2002	3989.38	3991.94	140.0	142.56	2	122.37 - 141.99	132.29
MW-7	6/13/2002	3990.28	3992.89	140.0	142.61	2	122.17 - 141.79	133.81
MW-8	6/12/2002	3988.83	3991.27	140.0	143.19	2	123.57 - 143.19	132.20
MW-9	8/27/2002	3986.41	3990.40	145.0	148.99	2	124.87 - 144.49	132.33
MW-10	8/28/2002	3989.74	3992.85	145.0	148.11	2	124.87 - 144.49	133.64
MW-11	8/29/2002	3988.9	3991.74	145.0	147.84	2	124.87 - 144.49	132.18
MW-12	8/29/2002	3986.61	3989.62	145.0	148.01	2	124.87 - 144.49	129.77
MW-13	8/28/2002	3987.47	3990.60	145.0	148.13	2	124.87 - 144.49	132.59
MW-14	8/30/2002	3988.3	3991.27	145.0	147.97	2	124.87 - 144.49	133.31
MW-15	8/30/2002	3989.2	3992.42	146.0	149.22	2	125.87 - 145.49	133.82
Wells installed 10/13 through 10/16/03. Depth to Groundwater Measurements Recorded 10/22/03								
MW-16	10/13/2003	3986.60	3989.17	145.0	145.00	2	124.49 - 144.49	129.41
MW-17	10/14/2003	3987.62	3989.92	145.0	145.00	2	124.49 - 144.49	130.21
MW-18	10/14/2003	3987.84	3989.96	145.0	145.00	2	124.49 - 144.49	130.12
MW-19	10/15/2003	3989.02	3991.32	145.0	145.00	2	124.49 - 144.49	130.48
MW-21	10/15/2003	3990.42	3992.62	145.0	145.00	2	124.49 - 144.49	131.55
MW-22	10/16/2003	3991.29	3993.71	145.0	145.00	2	124.49 - 144.49	132.78

Notes:

Wells MW-1 through MW-21 installed by Scarborough Drilling, Inc., Lamesa, Texas

1. BGS: Depth in feet below ground surface

2. AMSL: Elevation in feet above mean sea level

3. TOC: Depth in feet below top-of-casing

Table 2:

Summary of Monitoring Well Gauging Data
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

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Well Number	Date Drilled	Ground Elevation (Feet AMSL)	Top of Casing Elevation (feet AMSL)	Drilled Depth (feet bgs)	Well Depth (feet TOC)	Well Diameter (inches)	Screen Interval (feet bgs)	Depth to Groundwater (feet TOC)
MW-1	6/19/2002	3988.48	3990.85	140	142.09	2	122.47-142.09	132.49
	7/29/2002							132.55
	10/8/2002							132.26
	8/11/2003							130.33
MW-2	6/19/2002	3988.71	3991.08	140.0	142.37	2	123.27-142.89	132.87
	7/29/2002							132.92
	10/8/2002							132.46
	8/11/2003							130.71
MW-3	6/19/2002	3989.65	3991.75	140.0	142.34	2	123.72-143.34	133.52
	7/29/2002							133.58
	10/8/2002							133.19
	8/11/2003							131.36
MW-4	6/19/2002	3989.25	3991.57	140.0	142.32	2	122.47-142.09	134.35
	7/29/2002							134.25
	10/8/2002							133.83
	8/11/2003							131.78
MW-5	6/19/2002	3989.68	3993.12	143.0	146.44	2	125.97-145.59	134.05
	7/29/2002							134.06
	10/8/2002							133.73
	8/11/2003							131.91
MW-6	6/19/2002	3989.38	3991.94	140.0	142.56	2	122.37-141.99	133.58
	7/29/2002							133.61
	10/8/2002							132.29
	8/11/2003							131.59

Table 2:

Summary of Monitoring Well Gauging Data

Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

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Well Number	Date Drilled	Ground Elevation (Feet AMSL)	Top of Casing Elevation (feet AMSL)	Drilled Depth (feet bgs)	Well Depth (feet TOC)	Well Diameter (inches)	Screen Interval (feet bgs)	Depth to Groundwater (feet TOC)
MW-7	6/19/2002	3990.28	3992.89	140.0	142.61	2	122.17-141.79	133.94
	7/29/2002							134.03
	10/8/2002							133.81
	8/11/2003							132.26
MW-8	6/19/2002	3988.83	3991.27	140.0	143.19	2	123.57-143.19	132.81
	7/29/2002							132.93
	10/8/2002							132.20
	8/11/2003							130.78
MW-9	10/8/2002	3986.41	3990.40	145.0	148.99	2	124.87 - 144.49	132.33
	8/11/2003							130.27
MW-10	10/8/2002	3989.74	3992.85	145.0	148.11	2	124.87 - 144.49	133.64
	8/11/2003							132.12
MW-11	10/8/2002	3988.90	3991.74	145.0	147.84	2	124.87 - 144.49	132.18
	8/11/2003							130.68
MW-12	10/8/2002	3986.61	3989.62	145.0	148.01	2	124.87 - 144.49	129.77
	8/11/2003							128.77
MW-13	10/8/2002	3987.47	3990.60	145.0	148.13	2	124.87 - 144.49	132.59
	8/11/2003							130.37
MW-14	10/8/2002	3988.30	3991.27	145.0	147.97	2	124.87 - 144.49	133.31
	8/11/2003							131.17
MW-15	10/8/2002	3989.20	3992.42	146.0	149.22	2	125.87 - 145.49	133.82
	8/11/2003							132.07
MW-16	10/22/2003	3986.60	3989.17	145.0	145.00	2	124.49 - 144.49	129.41
MW-17	10/22/2003	3987.62	3989.92	145.0	145.00	2	124.49 - 144.49	130.21

Table 2:

Summary of Monitoring Well Gauging Data

Texaco Exploration and Production, Inc., Buckeye Compressor Station
Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
Lea County, New Mexico

Page 3 of 3

Well Number	Date Drilled	Ground Elevation (Feet AMSL)	Top of Casing Elevation (feet AMSL)	Drilled Depth (feet bgs)	Well Depth (feet TOC)	Well Diameter (inches)	Screen Interval (feet bgs)	Depth to Groundwater (feet TOC)
MW-18	10/22/2003	3987.84	3989.96	145.0	145.00	2	124.49 - 144.49	130.12
MW-19	10/22/2003	3989.02	3991.32	145.0	145.00	2	124.49 - 144.49	130.48
MW-20	10/22/2003	3990.42	3992.62	145.0	145.00	2	124.49 - 144.49	131.55
MW-21	10/22/2003	3991.29	3993.71	145.0	145.00	2	124.49 - 144.49	132.78
WW-1	6/19/2002	3989.37	3990.00	unknown	unknown	4	unknown	131.49
	7/29/2002							131.54
TW-9	7/29/2002	3985.48	3988.60	unknown	unknown	2	unknown	131.27
TW-10	7/29/2002	3985.57	3987.77	unknown	unknown	2	unknown	130.60
TW-11	7/29/2002	3986.51	3989.12	unknown	195.00	2	unknown	132.02
TW-13	7/29/2002	3986.57	3988.70	unknown	183.00	2	unknown	131.70
TW-14	7/29/2002	3984.63	3986.67	unknown	195.00	2	unknown	129.98
TW-15	7/29/2002	3981.74	3984.07	unknown	unknown	2	unknown	125.74
TW-17	7/29/2002	3983.23	3985.22	unknown	unknown	2	unknown	127.16
TW-19	7/29/2002	3982.34	3983.73	unknown	unknown	2	unknown	128.45
TW-20	7/29/2002	3986.38	3988.39	unknown	unknown	2	unknown	131.61
TW-23	7/29/2002	3982.20	3984.62	unknown	unknown	2	unknown	129.49
RW-2	7/29/2002	3986.19	3986.99	unknown	unknown	4	unknown	129.89

Notes:

Wells MW-1 through MW-21 installed by Scarborough Drilling, Inc., Lamesa, Texas

1. BGS:

Depth in feet below ground surface

2. AMSL:

Elevation in feet above mean sea level

3. TOC:

Depth in feet below top-of-casing

Table 3: Summary of BTEX Analysis of Groundwater Samples
Texaco Exploration and Production, Inc., Buckeye Compressor Station
Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
Lea County, New Mexico

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	p/m Xylene (mg/L)	o-Xylene (mg/L)	Total BTEX (mg/L)
		0.01	0.75	0.75	0.62		
MW-1	6/19/2002	1.74	0.024	<0.010	<0.010	<0.010	<1.794
	10/9/2002	3.56	<0.010	<0.010	<0.010	<0.010	<3.600
	8/12/2003	0.555	0.003	0.003	0.006	<0.001	<0.568
MW-2	6/19/2002	1.15	<0.005	0.009	0.008	<0.005	<1.177
	10/9/2002	1.73	<0.010	0.017	0.023	<0.010	<1.790
	8/12/2003	0.947	<0.005	0.007	0.007	<0.005	<0.971
MW-3	6/20/2002	1.05	0.739	0.345	0.300	0.116	2.550
	10/9/2002	4.8	1.240	0.088	0.125	0.053	6.306
	8/11/2003	3.3	1.130	0.240	0.203	0.069	4.942
MW-4	6/20/2002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	10/9/2002	0.705	<0.005	0.005	0.011	<0.005	<0.731
	8/13/2003	2.39	<0.005	0.012	0.006	<0.005	<2.418
MW-5	6/20/2002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
	10/9/2002	0.489	<0.001	<0.001	<0.001	<0.001	<0.493
	8/13/2003	0.361	0.002	0.001	0.002	<0.001	<0.367
MW-6	6/20/2002	0.444	<0.001	<0.001	<0.001	<0.001	<0.001
	10/9/2002	5.45	<0.010	<0.010	0.032	<0.010	<5.512
	8/12/2003	1.63	<0.005	<0.005	0.010	<0.005	<1.655
MW-7	6/20/2002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	10/9/2002	0.086	<0.001	<0.001	0.001	<0.001	<0.090
	8/12/2003	0.241	<0.001	<0.001	0.002	<0.001	<0.246
MW-8	6/20/2002	1.23	<0.005	0.046	0.021	<0.005	<1.307
	10/9/2002	0.579	<0.005	0.031	0.018	<0.005	<0.638
	8/12/2003	0.673	0.001	0.010	0.013	<0.001	<0.698
MW-9	10/9/2002	0.004	0.001	<0.001	0.023	<0.001	<0.030
	8/12/2003	0.083	0.002	<0.001	0.007	<0.001	<0.094
MW-10	10/8/2002	0.029	<0.001	<0.001	<0.001	<0.001	<0.033
	8/12/2003	0.060	<0.001	<0.001	<0.001	<0.001	<0.064
MW-11	10/8/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
	8/13/2003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
MW-12	10/8/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
	8/13/2003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
MW-13	10/8/2002	0.065	<0.001	<0.001	<0.001	<0.001	<0.069
	8/13/2003	0.060	0.002	<0.001	<0.001	<0.001	<0.065
MW-14	10/9/2002	3.63	0.014	0.098	0.169	0.018	3.929
	8/13/2003	1.65	0.014	0.165	0.242	0.018	2.089
MW-15	10/9/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
	8/13/2003	0.001	<0.001	<0.001	<0.001	<0.001	<0.005
MW-16	10/23/2003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
MW-17	10/23/2003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
MW-18	10/23/2003	0.07	<0.001	<0.001	<0.001	<0.001	0.070
MW-19	10/22/2003	1.99	0.334	0.089	0.079	0.036	2.528
MW-20	10/23/2003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
MW-21	10/23/2003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
Duplicate	6/20/2002	1.9	<0.005	0.075	0.033	<0.005	<2.018
Duplicate	8/13/2003	0.644	0.001	0.002	0.005	<0.001	<0.653
Duplicate	10/22/2003	2.02	0.345	0.093	0.088	0.040	2.586
TW-11	7/29/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
	11/21/2003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
TW-13	7/29/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
	11/21/2003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
TW-14	7/29/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005

Notes: All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas
1. mg/L: Concentration in milligrams per liter
2. <: Concentration below test method detection limit
3. ---: No data available
4. Duplicate sample 6/20/02 collected from MW-8
5. Duplicate sample 8/13/03 collected from MW-1
6. Duplicate sample 10/22/03 collected from MW-19

Table 4:

Summary of RCRA 7 Total Metals Analysis of Groundwater Samples
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Well Number	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury, Dissolved (mg/L)
NMWQCC Standard		0.1	1	0.01	0.050	0.05	0.05	0.05	0.002
MW-1	6/19/2002	<0.008	0.131	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-2	6/19/2002	<0.008	0.254	<0.001	<0.002	<0.011	<0.004	0.002	<0.002
MW-3	6/20/2002	0.009	0.194	<0.001	<0.002	<0.011	0.006	<0.002	<0.002
MW-4	6/20/2002	<0.008	0.219	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-5	6/20/2002	<0.008	0.209	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-6	6/20/2002	<0.008	0.182	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-7	6/20/2002	<0.008	0.140	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-8	6/20/2002	<0.008	0.650	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-16	10/23/2003	<0.008	0.139	<0.001	<0.002	0.019	<0.004	<0.002	<0.0005
MW-17	10/23/2003	<0.008	0.258	<0.001	<0.002	<0.011	<0.004	<0.002	<0.0005
MW-18	10/23/2003	<0.008	0.154	<0.001	<0.002	<0.011	<0.004	<0.002	<0.0005
MW-19	10/22/2003	<0.008	0.109	<0.001	<0.002	<0.011	<0.004	<0.002	<0.0005
MW-20	10/23/2003	<0.008	0.152	<0.001	<0.002	<0.011	<0.004	<0.002	<0.0005
MW-21	10/23/2003	<0.008	0.103	<0.001	0.009	<0.011	<0.004	<0.002	<0.0005
Duplicate	10/22/2003	<0.008	0.173	<0.001	<0.002	<0.011	<0.004	<0.002	<0.0005

Notes:

All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas

1. mg/L:

Concentration in milligrams per liter

2. <: Concentration below test method detection limit

3. ---: No data available

4. Duplicate sample 10/22/03 collected from MW-19

5. NMWQCC New Mexico Water Control Commission Standard

Table 5:

Summary of Anions, Cations and TDS Analysis of Groundwater Samples
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

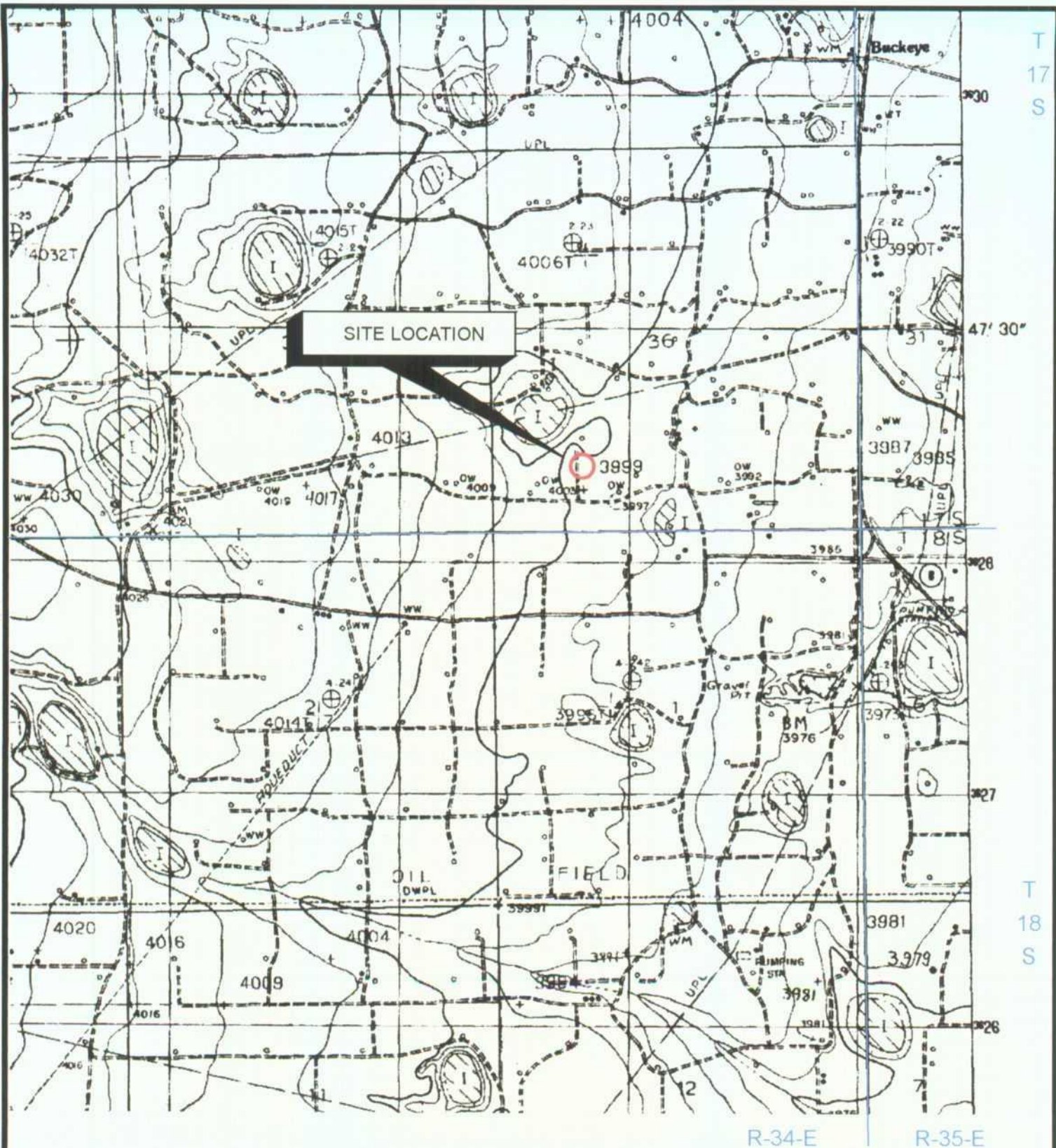
Well Number	Sample Date	Bicarbonate Alkalinity (mg/L)	Carbonate Alkalinity (mg/L)	Chloride (mg/L)	Hydroxide Alkalinity (mg/L)	Sulfate, 375.4 (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)
NMWQCC Standard		250				600	1000				
MW-1	6/19/2002	262	<0.10	97.5	<0.10	46.6	87.6	17.40	6.20	41.0	458
MW-2	6/19/2002	220	<0.10	88.6	<0.10	26.6	79.7	14.30	3.72	24.0	509
MW-3	6/20/2002	177	<0.10	56.1	<0.10	54.7	45.4	8.90	3.57	41.0	335
MW-4	6/20/2002	216	<0.10	142.0	<0.10	62.5	83.6	16.80	5.05	61.0	588
MW-5	6/20/2002	160	<0.10	160.0	<0.10	57.6	71.6	12.40	4.91	68.0	521
MW-6	6/20/2002	180	<0.10	28.4	<0.10	41.0	41.3	7.70	3.19	36.0	329
MW-7	6/20/2002	182	<0.10	31.9	<0.10	43.4	37.2	7.30	3.63	51.0	337
MW-8	6/20/2002	230	<0.10	31.9	<0.10	26.2	57.8	11.90	2.85	21.0	359
MW-16	10/23/2003	166	<0.10	60.3	<0.10	42.7	81.8	14.80	4.54	56.8	381
MW-17	10/23/2003	198	<0.10	292.0	<0.10	30.2	165.0	28.70	7.72	77.5	1,090
MW-18	10/23/2003	216	<0.10	81.5	<0.10	116.0	92.1	20.50	6.63	82.0	637
MW-19	10/22/2003	178	<0.10	62.0	<0.10	55.5	56.2	8.14	5.93	150.0	554
MW-20	10/23/2003	168	<0.10	42.5	<0.10	40.5	64.8	8.77	5.82	85.8	441
MW-21	10/23/2003	199	<0.10	40.8	<0.10	40.2	57.0	8.62	5.34	95.2	455
RW-1	8/20/2002	120	<0.10	230.0	<0.10	73.4	31.1	10.50	43.00	87.6	698
RW-2	8/20/2002	168	40	301.0	<0.10	101.0	7.9	12.60	266.00	191.0	893

Notes:

1. mg/L;
 2. < ;
 3. --- ;
 4. NMWQCC
- All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas
 Concentration in milligrams per liter
 Concentration below test method detection limit
 No data available
 New Mexico Water Quality Control Commission

FIGURES

FIGURES



TAKEN FROM U.S.G.S
BUCKEYE, NEW MEXICO 1985
7.5' QUADRANGLE



SCALE: 1"=2000'

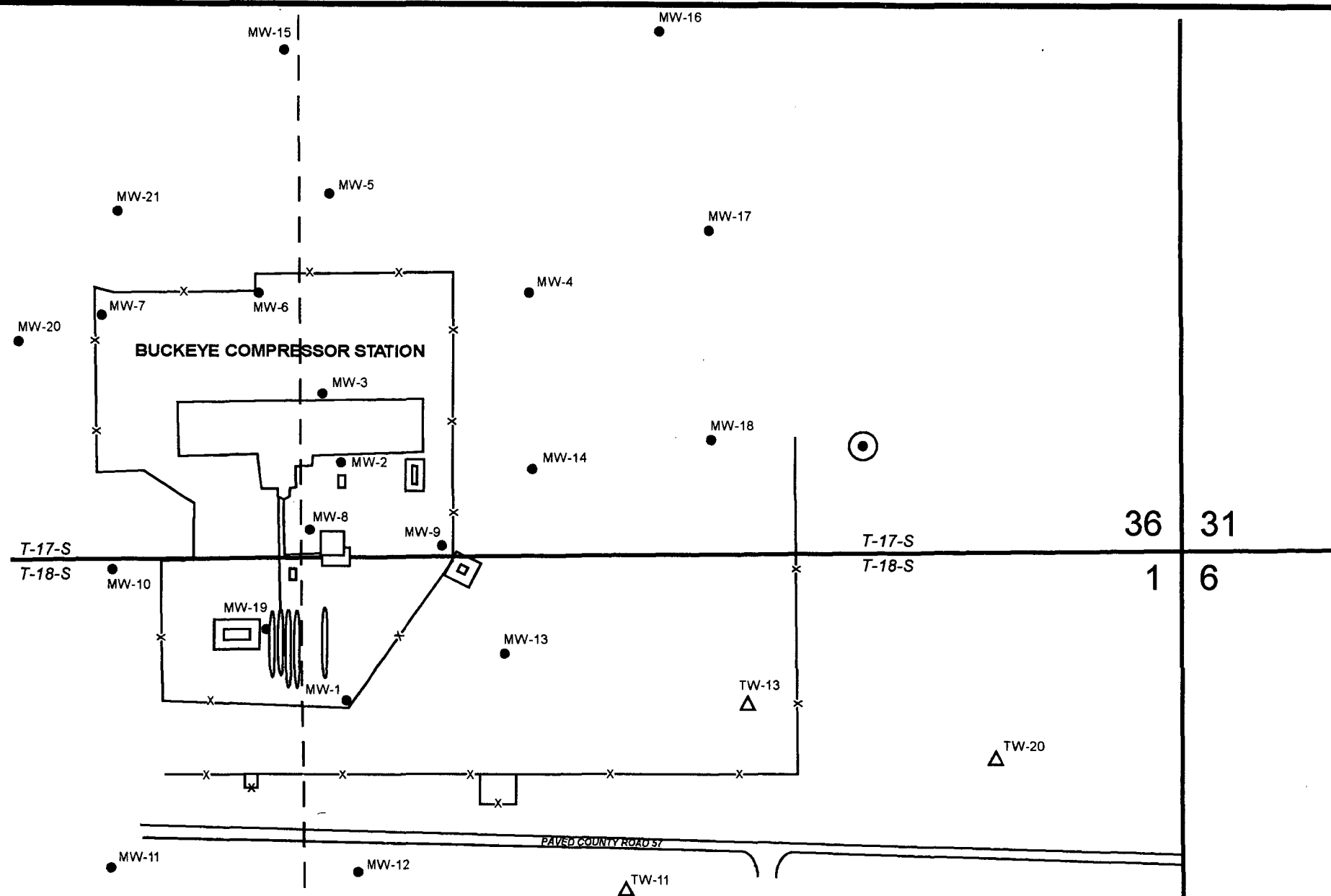
DATE: 07/18/02
NAME:
FILE: 2-0102

FIGURE #1

LEA COUNTY, NEW MEXICO
TEXACO EXPLORATION and
PRODUCTION INC.
BUCKEYE COMPRESSOR STATION

TOPOGRAPHIC MAP

Larson &
Associates, Inc.
Environmental Consultants



WELL DATA

WELL NUMBER	GROUND ELEV. FEET AMSL	TOP-OF CASING FEET AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42
MW-16	3986.60	3989.17
MW-17	3987.62	3989.92
MW-18	3987.84	3989.96
MW-19	3989.02	3991.32
MW-20	3990.42	3992.62
MW-21	3991.29	3993.71

LEGEND

- MW-12: ● MONITORING WELL
- ⊙ PROPOSED MONITORING WELL LOCATION

FIGURE #2

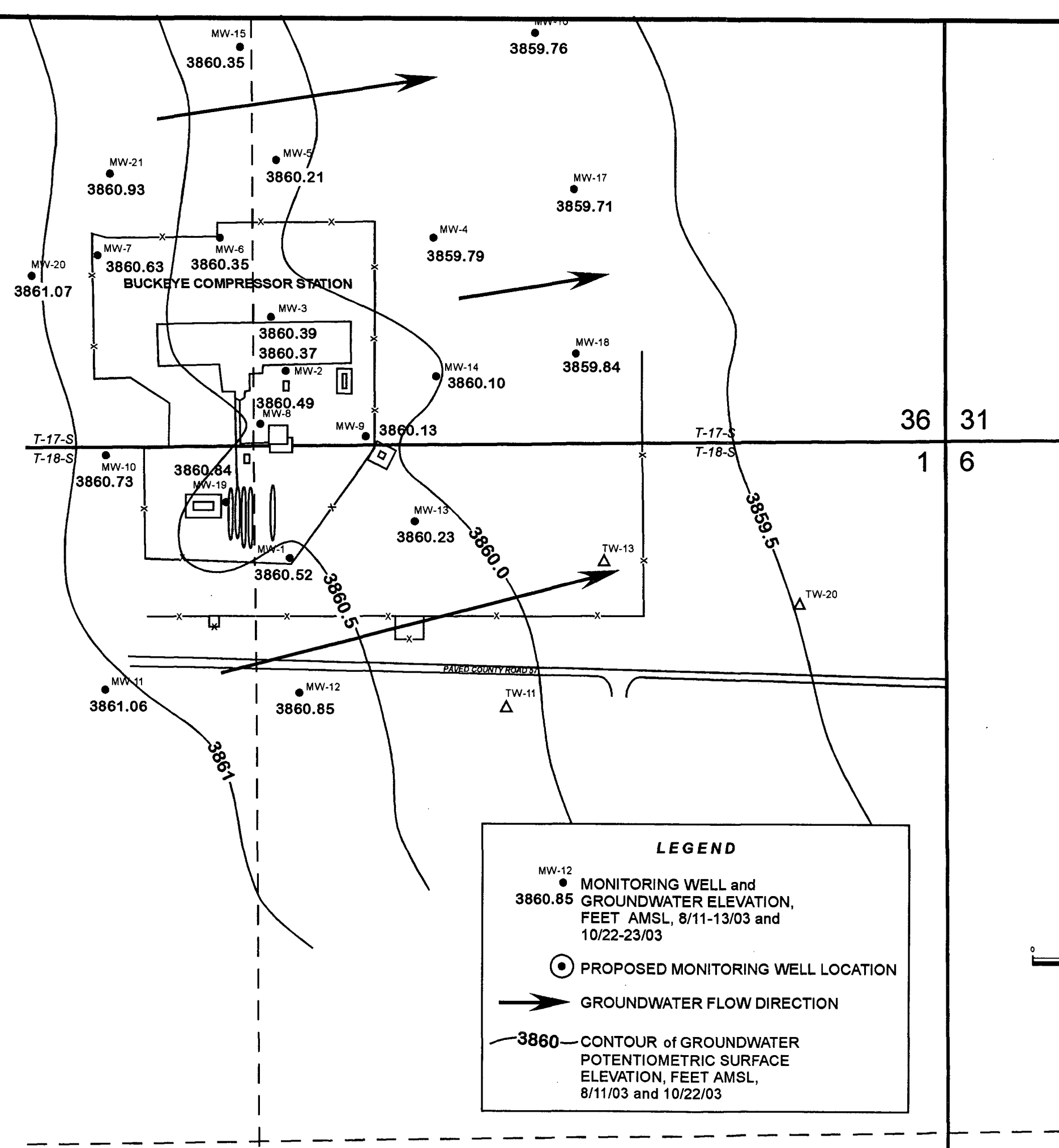
LEA COUNTY, NEW MEXICO

TEXACO EXPLORATION and
PRODUCTION INC.
BUCKEYE COMPRESSOR STATION

SITE DRAWING

DATE:
11/18/03
NAME:
CC
FILE:
2-0102

Larson &
Associates, Inc.
Environmental Consultants



LEGEND

- MW-12
 3860.85

 MONITORING WELL and
 GROUNDWATER ELEVATION,
 FEET AMSL, 8/11-13/03 and
 10/22-23/03
- PROPOSED MONITORING WELL LOCATION
- GROUNDWATER FLOW DIRECTION
- 3860—

 CONTOUR of GROUNDWATER
 POTENTIOMETRIC SURFACE
 ELEVATION, FEET AMSL,
 8/11/03 and 10/22/03

WELL DATA

WELL NUMBER	GROUND ELEV. FEET AMSL	TOP-OF CASING FEET AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42
MW-16	3986.60	3989.17
MW-17	3987.62	3989.92
MW-18	3987.84	3989.96
MW-19	3989.02	3991.32
MW-20	3990.42	3992.62
MW-21	3991.29	3993.71

FIGURE #3

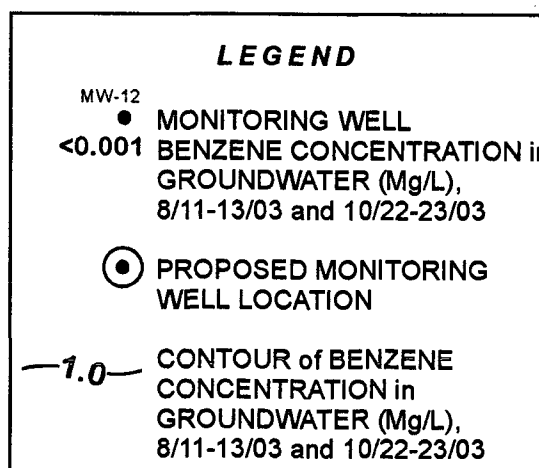
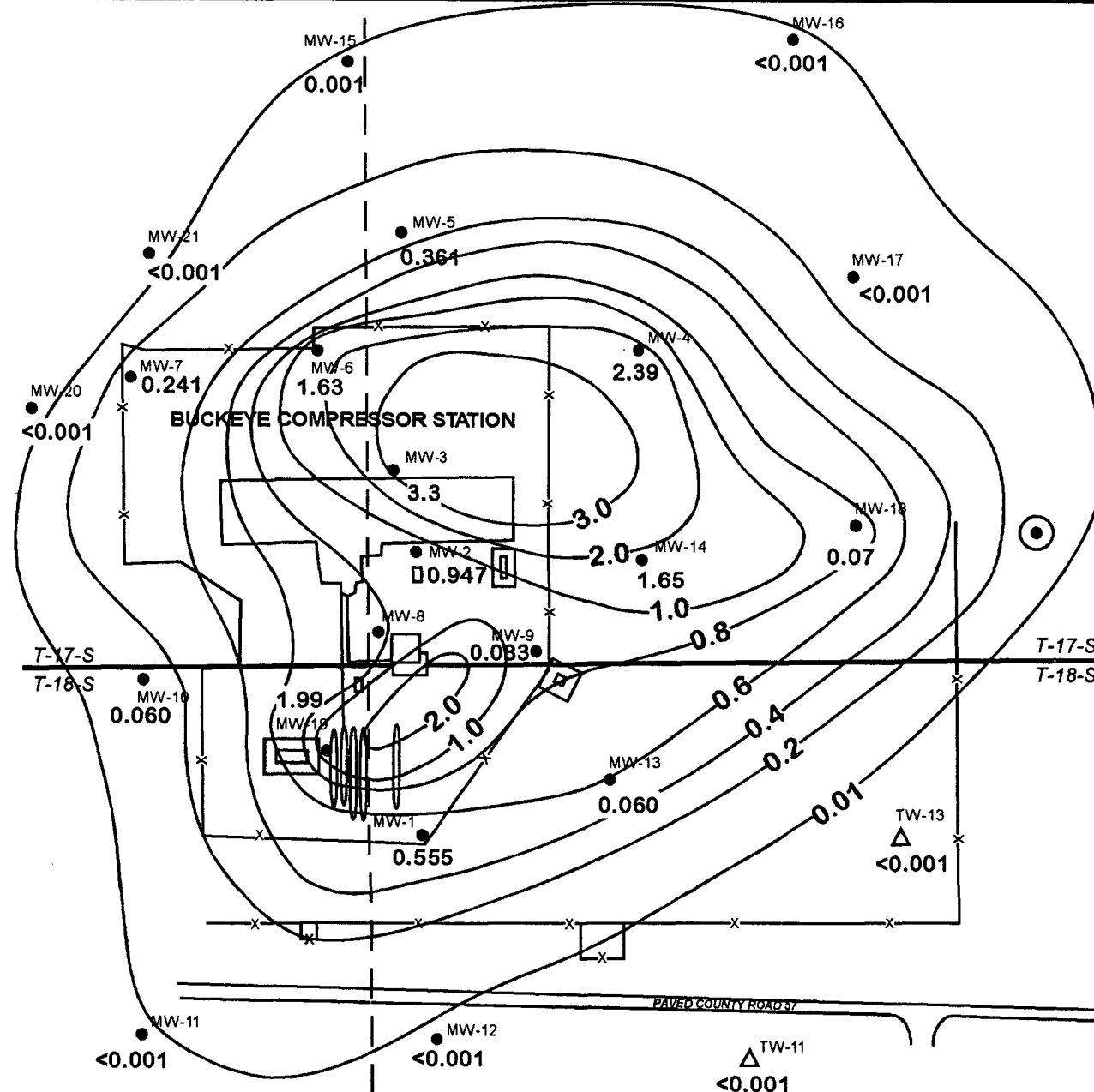
LEA COUNTY, NEW MEXICO

**TEXACO EXPLORATION and
PRODUCTION INC.**
BUCKEYE COMPRESSOR STATION

GROUNDWATER POTENTIOMETRIC
SURFACE MAP
8/11/03 and 10/22/03

DATE: 11/18/03
NAME: CC
FILE: 2-0102

Larson & Associates, Inc.
Environmental Consultants



WELL DATA

WELL NUMBER	GROUND ELEV. FEET AMSL	TOP-OF CASING FEET AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42
MW-16	3986.60	3989.17
MW-17	3987.62	3989.92
MW-18	3987.84	3989.96
MW-19	3989.02	3991.32
MW-20	3990.42	3992.62
MW-21	3991.29	3993.71

FIGURE #4

LEA COUNTY, NEW MEXICO

**TEXACO EXPLORATION and
PRODUCTION INC.**

BUCKEYE COMPRESSOR STATION

BENZENE ISOPLETH MAP
8/11 through 8/13/03 and 10/22 and 10/23/03

DATE: 11/18/03
NAME: CC
FILE: 2-0102

**Larson &
Associates, Inc.**
Environmental Consultants

APPENDIX A

APPENDIX A

MONITORING WELL LOGS

Client: Texaco Exploration and Production Inc.

Project: Buckeye Plant

Project No.: 2-0102

Location: SW/SE, Sec.36, T17S, R34E, Lea Co., NM

Log: MW-16

Geologist: C. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Description	Symbol	Elevation	Number	Type	Recovery			
0	Ground Surface		3989				2 4 6 8		
0	Caliche 7.5YR 7/3, pink quartz sand and quartzite, very fine grained, very poorly sorted, indurated								0-124.49' bgs 2" Sch.40 PVC Riser
10									
20									
30			3960						
30	Silty Sand 7.5YR 7/4, pink quartz sand, very fine grained, poorly sorted, loose.								
40									
50									
60			3926						0-120' bgs Cement-bentonite grout
70	Sand 7.5YR 5/6, strong brown quartz sand, very fine grained, well sorted, loose								
80									
90									
100									
110									
120									120-122' bgs Bentonite Chips 124.49-144.49' bgs 2" Sch.40 PVC Screen, 0.02" slots 129.41' bgs Water level (10/22/03)
130									
140			3844						122- 145' bgs Graded Silica Sand 2" Sch 40 PVC Cap
150	TD: 145'								

Drilled By: Scarborough Drilling

Drill Method: Water Rotary

Drill Date: 10/13/03

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

Well Size: 2"

TOC Elevation: 3989.17

Checked By: CC

Client: Texaco Exploration and Production Inc.

Project: Buckeye Plant

Project No.: 2-0102

Location: SW/SE, Sec.36, T17S, R34E, Lea Co.,NM

Log: MW-17

Geologist: Cindy Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Description	Symbol	Elevation	Number	Type	Recovery			
0	Ground Surface		3990						
0-10	Caliche 7.5YR 7/3, pink quartz sand and quartzite, very fine grained, very poorly sorted, indurated								0-124.49' bgs 2" Sch. 40 PVC Riser
10-40			3951						
40-50	Silty Sand 7.5YR 7/4, pink quartz sand, very fine grained, poorly sorted, loose								
50-60			3932						
60-145	Sand 7.5YR 5/6, strong brown quartz sand, very fine grained, well sorted, loose								0-120' bgs Cement-bentonite grout
120-122									120-122' bgs Bentonite Chips
124.49-144.49									124.49-144.49' bgs 2" Sch. 40 PVC Screen, 0.02" slots
130.21									130.21' bgs Water level 10/22/03
122-145									122-145' bgs Graded Silica Sand
145	TD: 145'		3845						2" Sch. 40 PVC Cap

Drilled By: Scarborough Drilling

Drill Method: Water Rotary

Drill Date: 10/14/03

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

Well Size: 2"

TOC Elevation: 3989.92

Checked By: CC

Client: Texaco Exploration and Production Inc.

Project: Buckeye Plant

Project No.: 2-0102

Location: SW/SE, Sec.36, T17S, R34E, Lea Co., NM

Log: MW-18

Geologist: C. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Description	Symbol	Elevation	Number	Type	Recovery	2 4 6 8		
0	Ground Surface		3990						
10	Caliche 7.5YR 7/3, pink quartz sand and quartzite, very fine grained, very poorly sorted, indurated								0-124.49' bgs 2" Sch.40 PVC Riser
20									
30	Silty Sand 7.5YR 7/4, pink quartz sand, very fine grained, poorly sorted, loose		3962						
40									
50									
60	Sand 7.5YR 5/6, strong brown quartz sand, very fine grained, well sorted, loose		3933						0-120' bgs Cement- Bentonite grout
70									
80									
90									
100									
110									
120									120-122' bgs Bentonite pellets
130									124.49-144.49' bgs 2" Sch.40 PVC Screen, 0.02" slots
140									130.12' bgs Water level (10/22/03)
150	TD: 145'		3845						122-145' bgs Graded silica sand
									2" Sch.40 PVC Cap

Drilled By: Scarborough Drilling

Drill Method: Water Rotary

Drill Date: 10/14/03

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

Well Size: 2"

TOC Elevation: 3989.96

Checked By: CC

Client: Texaco Exploration and Production Inc.

Project: Buckeye Plant

Project No.: 2-0102

Location: SW/SE, Sec.36, T17S, R34E, Lea Co., NM

Log: MW-19

Geologist: C. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Description	Symbol	Elevation	Number	Type	Recovery			
0	Ground Surface		3991						
10	Caliche 7.5YR 7/3, pink quartz sand and quartzite, very fine grained, very poorly sorted, indurated						3.30 3.10 4.10		0-124.49' bgs 2" Sch.40 PVC Riser
20			3967				16.60		
30	Sand 7.5YR 5/6, strong brown quartz sand, very fine grained, well sorted, loose						8.10 13.90 16.60		
40							12.40		
50	Sandy Gravel 7.5YR 5/6, strong brown quartz sand, very fine grained, very poorly sorted, loose		3942						0-120' bgs Cement- Bentonite grout
60									
70									
80									
90									
100									
110									
120			3866						120-122' bgs Bentonite pellets
130	Sand 7.5YR 5/6, strong brown quartz sand, very fine grained, poor to well sorted, loose								124.49-144.49' bgs 2" Sch.40 PVC Screen, 0.02" slots
140			3846						130.48' bgs Water level (10/22/03)
150	TD:145'								122-145' bgs Graded silica sand
									2" Sch.40 PVC Cap

Drilled By: Scarborough Drilling

Drill Method: Water Rotary

Drill Date: 10/15/03

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

Well Size: 2"

TOC Elevation: 3991.32

Checked By: CC

Client: Texaco Exploration and Production Inc.

Project: Buckeye Plant

Project No.: 2-0102

Location: SW/SE, Sec.36, T17S, R34E, Lea Co., NM

Log: MW-20

Geologist: C. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Description	Symbol	Elevation	Number	Type	Recovery			
0	Ground Surface		3993				5 10 15		
10	Caliche 7.5YR 7/3, pink quartz sand and quartzite, very fine grained, very poorly sorted, indurated								0-124.49' bgs 2" Sch.40 PVC Riser
20			3970						
30	Silty Sand 7.5YR 7/4, pink quartz sand, very fine grained, poorly sorted, loose.								
40									
50			3937						
60	Sand 7.5YR 5/6, strong brown quartz sand, very fine grained, well sorted, loose								0-120' bgs Cement-bentonite grout
70									
80									
90									
100									
110									
120									120-122' bgs Bentonite Chips
130									124.49-144.49' bgs 2" Sch.40 PVC Screen, 0.02" slots
140			3848						131.55' bgs Water level (10/22/03)
150	TD: 145'								122-145' bgs Graded Silica Sand
									2" Sch.40 PVC Cap

Drilled By: Scarborough Drilling

Drill Method: Water Rotary

Drill Date: 10/15/03

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

Well Size: 2"

TOC Elevation: 3992.62

Checked By: CC

Client: Texaco Exploration and Production Inc.

Project: Buckeye Plant

Project No.: 2-0102

Location: SW/SE, Sec.36, T17S, R34E, Lea Co., NM

Log: MW-21

Geologist: C. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Description	Symbol	Elevation	Number	Type	Recovery			
							5 10 15		
0	Ground Surface		3994						
10	Sand 7.5YR 5/6, strong brown quartz sand, very fine grained, poorly sorted								0-124.49' bgs 2" Sch.40 PVC Riser
20	Sandstone 7.5YR 5/6, strong brown to dark reddish brown quartz sandstone, very fine grained, very poorly sorted, hard		3966						
30	Gravelly Sand 7.5YR 5/6, strong brown quartz sand, very fine grained, very poorly sorted								0-120' bgs Cement-bentonite grout
40									
50									
60									
70									
80									
90									
100			3892						
110	Sand 7.5YR 5/6, strong brown quartz sand, very fine grained, well sorted, loose								120-122' bgs Bentonite Chips
120									124.49-144.49' bgs 2" Sch.40 PVC Screen, 0.02" slots
130									132.78' bgs Water level (10/22/03)
140			3849						122-145' bgs Graded Silica Sand
150	TD: 145'								2" Sch.40 PVC Cap

Drilled By: Scarborough Drilling

Drill Method: Water Rotary

Drill Date: 10/16/03

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

Well Size: 2"

TOC Elevation: 3993.71

Checked By: CC

APPENDIX B

APPENDIX B

**LABORATORY DATA AND CHAIN OF CUSTODY
DOCUMENTATION**

ANALYTICAL REPORT

Prepared for:

RAY JONES
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Buckeye GP

PO#:

Order#: G0307216

Report Date: 08/18/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0307216-01	MW-3	WATER	8/11/03 14:40	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-02	MW-6	WATER	8/12/03 10:43	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-03	MW-7	WATER	8/12/03 11:35	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-04	MW-1	WATER	8/12/03 14:28	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-05	MW-9	WATER	8/12/03 12:43	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-06	MW-2	WATER	8/12/03 13:47	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-07	MW-8	WATER	8/12/03 14:18	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-08	MW-10	WATER	8/12/03 15:30	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0307216-09	MW-11	WATER	8/13/03 8:23	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-10	MW-12	WATER	8/13/03 9:15	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-11	MW-13	WATER	8/13/03 10:04	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-12	MW-14	WATER	8/13/03 10:42	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-13	MW-4	WATER	8/13/03 11:28	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-14	MW-5	WATER	8/13/03 12:10	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-15	MW-15	WATER	8/13/03 12:57	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		
0307216-16	Duplicate	WATER	8/13/03	8/13/03 16:57	40 mL voa	ice
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 3.5 C		

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0307216-17	Trip Blank	WATER		8/13/03 16:57	Bottle	n/a
<u>Lab Testing:</u> 8021B/5030 BTEX		Rejected: No	Temp:	n/a		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

RAY JONES
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

Lab ID: 0307216-01
Sample ID: MW-3

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0006528-02		8/15/03 19:05	1	10	CK	8021B

Parameter	Result mg/L	RL
Benzene	3.30	0.010
Toluene	1.13	0.010
Ethylbenzene	0.240	0.010
p/m-Xylene	0.203	0.010
o-Xylene	0.069	0.010

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	192%	80	120
Bromofluorobenzene	99%	80	120

Lab ID: 0307216-02
Sample ID: MW-6

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0006528-02		8/15/03 19:27	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	1.63	0.005
Toluene	<0.005	0.005
Ethylbenzene	<0.005	0.005
p/m-Xylene	0.010	0.005
o-Xylene	<0.005	0.005

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	109%	80	120
Bromofluorobenzene	91%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

RAY JONES
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

Lab ID: 0307216-03
Sample ID: MW-7

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0006528-02		8/15/03 16:06	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.241	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	0.002	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	132%	80	120
Bromofluorobenzene	94%	80	120

Lab ID: 0307216-04
Sample ID: MW-1

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0006528-02		8/15/03 16:28	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.555	0.001
Toluene	0.003	0.001
Ethylbenzene	0.003	0.001
p/m-Xylene	0.006	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	143%	80	120
Bromofluorobenzene	95%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

RAY JONES
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

Lab ID: 0307216-05
Sample ID: MW-9

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0006528-02		8/18/03 16:50	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.083	0.001
Toluene	0.002	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	0.007	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	116%	80	120
Bromofluorobenzene	96%	80	120

Lab ID: 0307216-06
Sample ID: MW-2

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0006528-02		8/15/03 19:49	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.947	0.005
Toluene	<0.005	0.005
Ethylbenzene	0.007	0.005
p/m-Xylene	0.007	0.005
o-Xylene	<0.005	0.005

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	112%	80	120
Bromofluorobenzene	100%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

RAY JONES
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

Lab ID: 0307216-07
Sample ID: MW-8

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0006528-02		8/15/03 20:11	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.673	0.001
Toluene	0.001	0.001
Ethylbenzene	0.010	0.001
p/m-Xylene	0.013	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	124%	80	120
Bromofluorobenzene	90%	80	120

Lab ID: 0307216-08
Sample ID: MW-10

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0006528-02		8/15/03 20:34	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.060	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	119%	80	120
Bromofluorobenzene	93%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

RAY JONES
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

Lab ID: 0307216-09
Sample ID: MW-11

8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0006528-02		8/15/03 20:55	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	100%	80	120
Bromofluorobenzene	94%	80	120

Lab ID: 0307216-10
Sample ID: MW-12

8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0006528-02		8/15/03 21:17	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	101%	80	120
Bromofluorobenzene	94%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

RAY JONES
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

Lab ID: 0307216-11
Sample ID: MW-13

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0006528-02		8/15/03 21:39	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.060	0.001
Toluene	0.002	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	111%	80	120
Bromofluorobenzene	96%	80	120

Lab ID: 0307216-12
Sample ID: MW-14

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0006528-02		8/18/03 10:24	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	1.65	0.005
Toluene	0.014	0.005
Ethylbenzene	0.165	0.005
p/m-Xylene	0.242	0.005
o-Xylene	0.018	0.005

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	121%	80	120
Bromofluorobenzene	100%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

RAY JONES
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

Lab ID: 0307216-13
Sample ID: MW-4

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0006528-02		8/18/03 10:47	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	2.39	0.005
Toluene	<0.005	0.005
Ethylbenzene	0.012	0.005
p/m-Xylene	0.006	0.005
o-Xylene	<0.005	0.005

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	117%	80	120
Bromofluorobenzene	99%	80	120

Lab ID: 0307216-14
Sample ID: MW-5

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0006528-02		8/15/03 22:46	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.361	0.001
Toluene	0.002	0.001
Ethylbenzene	0.001	0.001
p/m-Xylene	0.002	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	136%	80	120
Bromofluorobenzene	94%	80	120

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

RAY JONES
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

Lab ID: 0307216-15
Sample ID: MW-15

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0006528-02		8/15/03 23:08	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	100%	80	120
Bromofluorobenzene	98%	80	120

Lab ID: 0307216-16
Sample ID: Duplicate

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0006528-02		8/15/03 23:30	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.644	0.001
Toluene	0.001	0.001
Ethylbenzene	0.002	0.001
p/m-Xylene	0.005	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	154%	80	120
Bromofluorobenzene	97%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

RAY JONES
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307216
Project: 2-0102
Project Name: Buckeye GP
Location: None Given

Lab ID: 0307216-17
Sample ID: Trip Blank

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0006528-02		8/18/03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	103%	80	120
Bromofluorobenzene	95%	80	120

Approval:

Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

8-18-03

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0307216

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0006528-02			<0.001		
Toluene-mg/L		0006528-02			<0.001		
Ethylbenzene-mg/L		0006528-02			<0.001		
p/m-Xylene-mg/L		0006528-02			<0.001		
o-Xylene-mg/L		0006528-02			<0.001		
MS							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0307216-17	0	0.1	0.086	86.6%	
Toluene-mg/L		0307216-17	0	0.1	0.087	87.6%	
Ethylbenzene-mg/L		0307216-17	0	0.1	0.087	87.6%	
p/m-Xylene-mg/L		0307216-17	0	0.2	0.173	86.5%	
o-Xylene-mg/L		0307216-17	0	0.1	0.083	83.3%	
MSD							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0307216-17	0	0.1	0.092	92.0%	6.7%
Toluene-mg/L		0307216-17	0	0.1	0.087	87.0%	0.0%
Ethylbenzene-mg/L		0307216-17	0	0.1	0.088	88.0%	1.1%
p/m-Xylene-mg/L		0307216-17	0	0.2	0.163	81.5%	6.0%
o-Xylene-mg/L		0307216-17	0	0.1	0.086	86.0%	3.6%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0006528-05		0.1	0.099	99.0%	
Toluene-mg/L		0006528-05		0.1	0.099	99.0%	
Ethylbenzene-mg/L		0006528-05		0.1	0.099	99.0%	
p/m-Xylene-mg/L		0006528-05		0.2	0.201	100.5%	
o-Xylene-mg/L		0006528-05		0.1	0.097	97.0%	

CASE NARRATIVE

ENVIRONMENTAL LAB OF TEXAS

Prepared for:

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307216

Project: Buckeye GP

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
MW-3	0307216-01	WATER	08/11/2003	08/13/2003
MW-6	0307216-02	WATER	08/12/2003	08/13/2003
MW-7	0307216-03	WATER	08/12/2003	08/13/2003
MW-1	0307216-04	WATER	08/12/2003	08/13/2003
MW-9	0307216-05	WATER	08/12/2003	08/13/2003
MW-2	0307216-06	WATER	08/12/2003	08/13/2003
MW-8	0307216-07	WATER	08/12/2003	08/13/2003
MW-10	0307216-08	WATER	08/12/2003	08/13/2003
MW-11	0307216-09	WATER	08/13/2003	08/13/2003
MW-12	0307216-10	WATER	08/13/2003	08/13/2003
MW-13	0307216-11	WATER	08/13/2003	08/13/2003
MW-14	0307216-12	WATER	08/13/2003	08/13/2003
MW-4	0307216-13	WATER	08/13/2003	08/13/2003
MW-5	0307216-14	WATER	08/13/2003	08/13/2003
MW-15	0307216-15	WATER	08/13/2003	08/13/2003
Duplicate	0307216-16	WATER	08/13/2003	08/13/2003
Trip Blank	0307216-17	WATER		08/13/2003

Surrogate recoveries on the 8021B BTEX are outside control limits due to matrix interference.
(0307216-01,03,04,07,12,14,16)

The enclosed results of analyses are representative of the samples as received by the laboratory. Environmental Lab of Texas makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By:

Ralan d K J
Environmental Lab of Texas I, Ltd.

Date: 8-18-03

CLIENT NAME:	SITE MANAGER:
--------------	---------------

Ches. IX	PROJECT NO.:	2-0102	PROJECT NAME:	Buckeye GP	CONTAINERS

PAGE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	LAB: PO #	NUMBER OF
------	------	-------	------	-------	-----------------------	-----------	-----------

8/1/03	1440	✓	mw-3	2
4/2/03	1043	✓	mw-6	2
4/2/03	1105	✓	mw-5	2

[illegible]

6/12/92	✓	mw-1	
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12	1243	✓	17.5	✓
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1347	✓	mw-2	2
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2	8-MW	✓	2/18
2	8-MW	✓	2/18

11/2	✓	mw-10	2
1530			

113	0833	✓	6/13-11	76
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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[illegible][illegible]

	8/13	104人	✓	11月	7	10
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4/3/28	✓	mw-5	80
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4/13/2010	✓	mw-2	61
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2/13/257	/	HW-10	2
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2	2/11/13	✓	✓
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✓	TIP BANK	2
---	----------	---

[illegible]

SAMPLED BY: (Signature)	DATE: 2/1/83	RELINQUISHED BY:
-------------------------	--------------	------------------

TIME: 1257

RECEIVED BY: (Signature) DATE: 8/3/23

TIME: 1657

33

COMMENTS:

RECEIVING LABORATORY: _____ RECEIVED _____

ADDRESS: _____ STATE: _____ ZIP: _____

CITY: _____ STATE: _____ ZIP: _____ DATE: _____
CONTACT: _____ PHONE: _____

CONTACT: _____

SAMPLE CONDITION WHEN RECEIVED: _____

SAMPLE CONDITION WHEN RECEIVED:

1

1. $\frac{1}{x^3} = x^{-3}$

1000

ANALYTICAL REPORT

Prepared for:

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Chev. TX/ Buckeye G.P.

PO#:

Order#: G0307780

Report Date: 10/29/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.

P.O. BOX 50685

MIDLAND, TX 79710

915-687-0456

Order#: G0307780

Project: 2-0102

Project Name: Chev. TX/ Buckeye G.P.

Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0307780-01	MW-16	WATER	10/24/03 10:15	10/24/03 13:30	L HDPE	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: -1 C		
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0307780-02	MW-17	WATER	10/24/03 10:02	10/24/03 13:30	L HDPE	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: -1 C		
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0307780-03	MW-18	WATER	10/24/03 9:55	10/24/03 13:30	L HDPE	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: -1 C		
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0307780-04	MW-19	WATER	10/24/03 9:32	10/24/03 13:30	L HDPE	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: -1 C		
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0307780-05	MW-20	WATER	10/24/03 9:45	10/24/03 13:30	L HDPE	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: -1 C		
	Anions					
	Cations					
	Total Dissolved Solids (TDS)					
0307780-06	MW-21	WATER	10/24/03 9:15	10/24/03 13:30	L HDPE	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: -1 C		
	Anions					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.

P.O. BOX 50685

MIDLAND, TX 79710

915-687-0456

Order#: G0307780

Project: 2-0102

Project Name: Chev. TX/ Buckeye G.P.

Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
	Cations					
	Total Dissolved Solids (TDS)					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307780
Project: 2-0102
Project Name: Chev. TX/ Buckeye G.P.
Location: None Given

Lab ID: 0307780-01
Sample ID: MW-16

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	166	mg/L	1	2.00	310.1	10/25/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
Chloride	60.3	mg/L	1	5.00	9253	10/27/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
SULFATE, 375.4	42.7	mg/L	1	0.5	375.4	10/27/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	81.8	mg/L	10	0.10	6010B	10/29/03	SM
Magnesium	14.8	mg/L	10	0.010	6010B	10/29/03	SM
Potassium	4.54	mg/L	1	0.050	6010B	10/29/03	SM
Sodium	56.8	mg/L	10	0.10	6010B	10/29/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	381	mg/L	1	5.0	160.1	10/24/03	SB

Lab ID: 0307780-02
Sample ID: MW-17

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	198	mg/L	1	2.00	310.1	10/25/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
Chloride	292	mg/L	1	5.00	9253	10/27/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
SULFATE, 375.4	30.2	mg/L	1	0.5	375.4	10/27/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	165	mg/L	100	1.0	6010B	10/29/03	SM
Magnesium	28.7	mg/L	10	0.010	6010B	10/29/03	SM
Potassium	7.72	mg/L	1	0.050	6010B	10/29/03	SM
Sodium	77.5	mg/L	10	0.10	6010B	10/29/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	1090	mg/L	1	5.0	160.1	10/24/03	SB

RL = Reporting Limit N/A = Not Applicable

Page 1 of 4

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307780
Project: 2-0102
Project Name: Chev. TX/ Buckeye G.P.
Location: None Given

Lab ID: 0307780-03
Sample ID: MW-18

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	216	mg/L	1	2.00	310.1	10/25/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
Chloride	81.5	mg/L	1	5.00	9253	10/27/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
SULFATE, 375.4	116	mg/L	1	0.5	375.4	10/27/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	92.1	mg/L	10	0.10	6010B	10/29/03	SM
Magnesium	20.5	mg/L	10	0.010	6010B	10/29/03	SM
Potassium	6.63	mg/L	1	0.050	6010B	10/29/03	SM
Sodium	82.0	mg/L	10	0.10	6010B	10/29/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	637	mg/L	1	5.0	160.1	10/24/03	SB

Lab ID: 0307780-04
Sample ID: MW-19

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	178	mg/L	1	2.00	310.1	10/25/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
Chloride	62.0	mg/L	1	5.00	9253	10/27/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
SULFATE, 375.4	55.5	mg/L	1	0.5	375.4	10/27/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	56.2	mg/L	10	0.10	6010B	10/29/03	SM
Magnesium	8.14	mg/L	1	0.001	6010B	10/29/03	SM
Potassium	5.93	mg/L	1	0.050	6010B	10/29/03	SM
Sodium	150	mg/L	100	1.0	6010B	10/29/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	554	mg/L	1	5.0	160.1	10/24/03	SB

RL = Reporting Limit N/A = Not Applicable

Page 2 of 4

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307780
Project: 2-0102
Project Name: Chev. TX/ Buckeye G.P.
Location: None Given

Lab ID: 0307780-05
Sample ID: MW-20

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	168	mg/L	1	2.00	310.1	10/25/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
Chloride	42.5	mg/L	1	5.00	9253	10/27/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
SULFATE, 375.4	40.5	mg/L	1	0.5	375.4	10/27/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	64.8	mg/L	10	0.10	6010B	10/29/03	SM
Magnesium	8.77	mg/L	1	0.001	6010B	10/29/03	SM
Potassium	5.82	mg/L	1	0.050	6010B	10/29/03	SM
Sodium	85.8	mg/L	10	0.10	6010B	10/29/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	441	mg/L	1	5.0	160.1	10/24/03	SB

Lab ID: 0307780-06
Sample ID: MW-21

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	199	mg/L	1	2.00	310.1	10/25/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
Chloride	40.8	mg/L	1	5.00	9253	10/27/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	10/25/03	SB
SULFATE, 375.4	40.2	mg/L	1	0.5	375.4	10/27/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	57.0	mg/L	10	0.10	6010B	10/29/03	SM
Magnesium	8.62	mg/L	1	0.001	6010B	10/29/03	SM
Potassium	5.34	mg/L	1	0.050	6010B	10/29/03	SM
Sodium	95.2	mg/L	10	0.10	6010B	10/29/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	455	mg/L	1	5.0	160.1	10/24/03	SB

RL = Reporting Limit N/A = Not Applicable

Page 3 of 4

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307780
Project: 2-0102
Project Name: Chev. TX/ Buckeye G.P.
Location: None Given

Approval:

Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0307780

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0007240-01			<2.00	
Carbonate Alkalinity-mg/L		0007241-01			<0.10	
Chloride-mg/L		0007252-01			<5.00	
Hydroxide Alkalinity-mg/L		0007242-01			<0.10	
SULFATE, 375.4-mg/L		0007254-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0307780-01	166		165	0.6%
Carbonate Alkalinity-mg/L		0307780-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0307780-01	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0307780-01	42.7		46.9	9.4%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0307780-01	60.3	100	160	99.7%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0307780-01	60.3	100	154	93.7% 3.8%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0007240-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0007241-04		0.05	0.0496	99.2%
Chloride-mg/L		0007252-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0007242-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0007254-04		50	47.4	94.8%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0307780

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0007273-02			<0.010		
Magnesium-mg/L		0007273-02			<0.001		
Potassium-mg/L		0007273-02			<0.050		
Sodium-mg/L		0007273-02			<0.010		
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0307780-01	81.8		80.1		2.1%
Magnesium-mg/L		0307780-01	14.8		14.4		2.7%
Potassium-mg/L		0307780-01	4.54		4.54		0.0%
Sodium-mg/L		0307780-01	56.8		56.0		1.4%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0007273-05		2	2.19	109.5%	
Magnesium-mg/L		0007273-05		2	2.19	109.5%	
Potassium-mg/L		0007273-05		2	2.10	105.0%	
Sodium-mg/L		0007273-05		2	1.78	89.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307780

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0007253-01			<5.00		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0307780-01	381		386		1.3%

CHAIN—OF—CUSTODY RECORD

LA arson & ssociates, Inc. Fax: 915-687-0456
Environmental Consultants 915-687-0901

507 N. Marientfeld, Ste. 202 • Midland, TX 79701

LAB. I.D. NUMBER (LAB USE ONLY)
REMARKS
(I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)

0307780-01
-02
-03
-04
-05
-06

PARAMETERS/METHOD NUMBER

NUMBER OF CONTAINERS

SITE MANAGER:

PROJECT NAME:

LAB. PO #

SAMPLE IDENTIFICATION

OTHER

WATER

TIME

DATE

10/24 1015 ✓
10/24 1002 ✓
10/24 0955 ✓
10/24 0932 ✓
10/24 0945 ✓
10/24 0915 ✓
MW-16
MW-17
MW-18
MW-19
MW-20
MW-21

DATE: 10/24/03

TIME: 0905

DATE: 10/24/03

TIME: 1323

RECEIVED BY: (Signature)

DATE: TIME:

SAMPLE SHIPPED BY: (Circle)

FEDEX HAND DELIVERED BUS UPS AIRBILL # OTHER:

TURNAROUND TIME NEEDED

Standard

RECEIVED BY: (Signature)

DATE: 10-24-03

TIME: 1330

RECEIVING LABORATORY: E201

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT: PHONE:

SAMPLE CONDITION WHEN RECEIVED:

LA CONTACT PERSON:

-102

Andy C. Rains

SAMPLE TYPE:

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

ANALYTICAL REPORT

Prepared for:

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Chev Tx/Buckeye Gas Plant
PO#: 2-0102
Order#: G0307774
Report Date: 10/29/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0307774
Project:
Project Name: Chev Tx/Buckeye Gas Plant
Location:

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0307774-01	MW-19	WATER	10/22/03 13:50	10/23/03 15:50	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 1 C		
	8021B/5030 BTEX					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					
0307774-02	MW-18	WATER	10/23/03 8:50	10/23/03 15:50	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 1 C		
	8021B/5030 BTEX					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					
0307774-03	MW-17	WATER	10/23/03 9:30	10/23/03 15:50	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 1 C		
	8021B/5030 BTEX					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					
0307774-04	MW-16	WATER	10/23/03 9:59	10/23/03 15:50	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 1 C		
	8021B/5030 BTEX					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					
0307774-05	MW-21	WATER	10/23/03 10:45	10/23/03 15:50	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 1 C		
	8021B/5030 BTEX					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					
0307774-06	MW-20	WATER	10/23/03 11:30	10/23/03 15:50	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 1 C		
	8021B/5030 BTEX					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0307774
Project:
Project Name: Chev Tx/Buckeye Gas Plant
Location:

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
	METALS RCRA 7 Dissolved Mercury, Dissolved					
0307774-07	DUP	WATER		10/23/03 15:50	See COC	See COC
	<u>Lab Testing:</u> 8021B/5030 BTEX METALS RCRA 7 Dissolved Mercury, Dissolved	Rejected: No		Temp: 1 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307774
Project:
Project Name: Chev Tx/Buckeye Gas Plant
Location:

Lab ID: 0307774-01
Sample ID: MW-19

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0007255-02		10/27/03	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	1.99	0.005
Toluene	0.334	0.005
Ethylbenzene	0.089	0.005
p/m-Xylene	0.079	0.005
o-Xylene	0.036	0.005

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	127%	80	120
Bromofluorobenzene	101%	80	120

Lab ID: 0307774-02
Sample ID: MW-18

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0007255-02		10/27/03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.070	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	99%	80	120
Bromofluorobenzene	100%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307774
Project:
Project Name: Chev Tx/Buckeye Gas Plant
Location:

Lab ID: 0307774-03
Sample ID: MW-17

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0007255-02		10/27/03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	95%	80	120
Bromofluorobenzene	100%	80	120

Lab ID: 0307774-04
Sample ID: MW-16

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0007255-02		10/27/03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	103%	80	120
Bromofluorobenzene	110%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307774
Project:
Project Name: Chev Tx/Buckeye Gas Plant
Location:

Lab ID: 0307774-05
Sample ID: MW-21

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0007255-02		10/27/03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	100%	80	120
Bromofluorobenzene	109%	80	120

Lab ID: 0307774-06
Sample ID: MW-20

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0007255-02		10/27/03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	94%	80	120
Bromofluorobenzene	102%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307774
Project:
Project Name: Chev Tx/Buckeye Gas Plant
Location:

Lab ID: 0307774-07
Sample ID: DUP

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0007255-02		10/27/03	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	2.02	0.005
Toluene	0.345	0.005
Ethylbenzene	0.093	0.005
p/m-Xylene	0.088	0.005
o-Xylene	0.040	0.005

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	126%	80	120
Bromofluorobenzene	110%	80	120

Approval:

Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307774
Project:
Project Name: Chev Tx/Buckeye Gas Plant
Location:

Lab ID: 0307774-01
Sample ID: MW-19

METALS RCRA 7 Dissolved

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	<0.008	mg/L	1	0.008	6010B	10/27/03	SM
Barium	0.109	mg/L	1	0.001	6010B	10/27/03	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	10/27/03	SM
Chromium	<0.002	mg/L	1	0.002	6010B	10/27/03	SM
Lead	<0.011	mg/L	1	0.011	6010B	10/27/03	SM
Selenium	<0.004	mg/L	1	0.004	6010B	10/27/03	SM
Silver	<0.002	mg/L	1	0.002	6010B	10/27/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Dissolved	< 0.00050	mg/L	1	0.00050	7470	10/28/03	SM

Lab ID: 0307774-02
Sample ID: MW-18

METALS RCRA 7 Dissolved

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	<0.008	mg/L	1	0.008	6010B	10/27/03	SM
Barium	0.154	mg/L	1	0.001	6010B	10/27/03	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	10/27/03	SM
Chromium	<0.002	mg/L	1	0.002	6010B	10/27/03	SM
Lead	<0.011	mg/L	1	0.011	6010B	10/27/03	SM
Selenium	<0.004	mg/L	1	0.004	6010B	10/27/03	SM
Silver	<0.002	mg/L	1	0.002	6010B	10/27/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Dissolved	< 0.00050	mg/L	1	0.00050	7470	10/28/03	SM

Lab ID: 0307774-03
Sample ID: MW-17

METALS RCRA 7 Dissolved

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	<0.008	mg/L	1	0.008	6010B	10/27/03	SM
Barium	0.258	mg/L	1	0.001	6010B	10/27/03	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	10/27/03	SM
Chromium	<0.002	mg/L	1	0.002	6010B	10/27/03	SM
Lead	<0.011	mg/L	1	0.011	6010B	10/27/03	SM
Selenium	<0.004	mg/L	1	0.004	6010B	10/27/03	SM

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307774
Project:
Project Name: Chev Tx/Buckeye Gas Plant
Location:

Lab ID: 0307774-03

Sample ID: MW-17

METALS RCRA 7 Dissolved

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Silver	<0.002	mg/L	1	0.002	6010B	10/27/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Dissolved	< 0.00050	mg/L	1	0.00050	7470	10/28/03	SM

Lab ID: 0307774-04

Sample ID: MW-16

METALS RCRA 7 Dissolved

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	<0.008	mg/L	1	0.008	6010B	10/27/03	SM
Barium	0.139	mg/L	1	0.001	6010B	10/27/03	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	10/27/03	SM
Chromium	<0.002	mg/L	1	0.002	6010B	10/27/03	SM
Lead	0.019	mg/L	1	0.011	6010B	10/27/03	SM
Selenium	<0.004	mg/L	1	0.004	6010B	10/27/03	SM
Silver	<0.002	mg/L	1	0.002	6010B	10/27/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Dissolved	< 0.00050	mg/L	1	0.00050	7470	10/28/03	SM

Lab ID: 0307774-05

Sample ID: MW-21

METALS RCRA 7 Dissolved

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	<0.008	mg/L	1	0.008	6010B	10/27/03	SM
Barium	0.103	mg/L	1	0.001	6010B	10/27/03	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	10/27/03	SM
Chromium	0.009	mg/L	1	0.002	6010B	10/27/03	SM
Lead	<0.011	mg/L	1	0.011	6010B	10/27/03	SM
Selenium	<0.004	mg/L	1	0.004	6010B	10/27/03	SM
Silver	<0.002	mg/L	1	0.002	6010B	10/27/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Dissolved	< 0.00050	mg/L	1	0.00050	7470	10/28/03	SM

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307774
Project:
Project Name: Chev Tx/Buckeye Gas Plant
Location:

Lab ID: 0307774-06
Sample ID: MW-20

METALS RCRA 7 Dissolved

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	<0.008	mg/L	1	0.008	6010B	10/27/03	SM
Barium	0.152	mg/L	1	0.001	6010B	10/27/03	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	10/27/03	SM
Chromium	<0.002	mg/L	1	0.002	6010B	10/27/03	SM
Lead	<0.011	mg/L	1	0.011	6010B	10/27/03	SM
Selenium	<0.004	mg/L	1	0.004	6010B	10/27/03	SM
Silver	<0.002	mg/L	1	0.002	6010B	10/27/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Dissolved	< 0.00050	mg/L	1	0.00050	7470	10/28/03	SM

Lab ID: 0307774-07
Sample ID: DUP

METALS RCRA 7 Dissolved

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	<0.008	mg/L	1	0.008	6010B	10/27/03	SM
Barium	0.173	mg/L	1	0.001	6010B	10/27/03	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	10/27/03	SM
Chromium	<0.002	mg/L	1	0.002	6010B	10/27/03	SM
Lead	<0.011	mg/L	1	0.011	6010B	10/27/03	SM
Selenium	<0.004	mg/L	1	0.004	6010B	10/27/03	SM
Silver	<0.002	mg/L	1	0.002	6010B	10/27/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Dissolved	< 0.00050	mg/L	1	0.00050	7470	10/28/03	SM

Approval:

Cele D. Keene 10/29/03
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0307774

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0007255-02			<0.001		
Toluene-mg/L		0007255-02			<0.001		
Ethylbenzene-mg/L		0007255-02			<0.001		
p/m-Xylene-mg/L		0007255-02			<0.001		
o-Xylene-mg/L		0007255-02			<0.001		
CONTROL							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0007255-03		0.1	0.082	82.%	
Toluene-mg/L		0007255-03		0.1	0.086	86.%	
Ethylbenzene-mg/L		0007255-03		0.1	0.085	85.%	
p/m-Xylene-mg/L		0007255-03		0.2	0.172	86.%	
o-Xylene-mg/L		0007255-03		0.1	0.082	82.%	
CONTROL DUP							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0007255-04		0.1	0.088	88.%	7.1%
Toluene-mg/L		0007255-04		0.1	0.089	89.%	3.4%
Ethylbenzene-mg/L		0007255-04		0.1	0.087	87.%	2.3%
p/m-Xylene-mg/L		0007255-04		0.2	0.176	88.%	2.3%
o-Xylene-mg/L		0007255-04		0.1	0.086	86.%	4.8%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0007255-05		0.1	0.092	92.%	
Toluene-mg/L		0007255-05		0.1	0.091	91.%	
Ethylbenzene-mg/L		0007255-05		0.1	0.088	88.%	
p/m-Xylene-mg/L		0007255-05		0.2	0.177	88.5%	
o-Xylene-mg/L		0007255-05		0.1	0.088	88.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

METALS RCRA 7 Dissolved

Order#: G0307774

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Arsenic-mg/L		0007259-02			<0.008	
Barium-mg/L		0007259-02			<0.001	
Cadmium-mg/L		0007259-02			<0.001	
Chromium-mg/L		0007259-02			<0.002	
Lead-mg/L		0007259-02			<0.011	
Selenium-mg/L		0007259-02			<0.004	
Silver-mg/L		0007259-02			<0.002	
CONTROL						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Arsenic-mg/L		0007259-03		0.8	0.849	106.1%
Barium-mg/L		0007259-03		0.2	0.216	108.%
Cadmium-mg/L		0007259-03		0.2	0.213	106.5%
Chromium-mg/L		0007259-03		0.2	0.204	102.%
Lead-mg/L		0007259-03		1.1	1.22	110.9%
Selenium-mg/L		0007259-03		0.4	0.440	110.%
Silver-mg/L		0007259-03		0.1	0.101	101.%
CONTROL DUP						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Arsenic-mg/L		0007259-04		0.8	0.863	107.9%
Barium-mg/L		0007259-04		0.2	0.217	108.5%
Cadmium-mg/L		0007259-04		0.2	0.211	105.5%
Chromium-mg/L		0007259-04		0.2	0.204	102.%
Lead-mg/L		0007259-04		1.1	1.21	110.%
Selenium-mg/L		0007259-04		0.4	0.434	108.5%
Silver-mg/L		0007259-04		0.1	0.102	102.%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Arsenic-mg/L		0007259-05		1	1.05	105.%
Barium-mg/L		0007259-05		1	1.10	110.%
Cadmium-mg/L		0007259-05		1	1.05	105.%
Chromium-mg/L		0007259-05		1	1.05	105.%
Lead-mg/L		0007259-05		1	1.08	108.%
Selenium-mg/L		0007259-05		1	1.09	109.%
Silver-mg/L		0007259-05		0.5	0.513	102.6%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307774

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Dissolved-mg/L		0007263-01			< 0.00050		
CONTROL							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Dissolved-mg/L		0007263-02		0.001	0.001	100.0%	
CONTROL DUP							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Dissolved-mg/L		0007263-03		0.001	0.001	100.0%	0.0%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Dissolved-mg/L		0007263-04		0.001	0.001	100.0%	

CASE NARRATIVE

ENVIRONMENTAL LAB OF TEXAS

Prepared for:

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307774

Project: Chev Tx/Buckeye Gas Plant

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
MW-19	0307774-01	WATER	10/22/2003	10/23/2003
MW-18	0307774-02	WATER	10/23/2003	10/23/2003
MW-17	0307774-03	WATER	10/23/2003	10/23/2003
MW-16	0307774-04	WATER	10/23/2003	10/23/2003
MW-21	0307774-05	WATER	10/23/2003	10/23/2003
MW-20	0307774-06	WATER	10/23/2003	10/23/2003
DUP	0307774-07	WATER		10/23/2003

Surrogate recoveries on the 8021B BTEX are outside control limits due to matrix interference.
(0307774-01,07)

The enclosed results of analyses are representative of the samples as received by the laboratory. Environmental Lab of Texas makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By: _____

Cheryl D. Keene
Environmental Lab of Texas I, Ltd.

Date: _____

10/29/03

ANALYTICAL REPORT

Prepared for:

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Chevron Texaco

PO#:

Order#: G0308025

Report Date: 12/01/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0308025
Project: 1-0102
Project Name: Chevron Texaco
Location: BUCKEYE GP

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0308025-01	TW-11	WATER	11/21/03	11/21/03 17:41	4 OZ GLASS	ICE, HCl
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 4 C		
0308025-02	TW-13	WATER	11/21/03	11/21/03 17:41	4 OZ GLASS	ICE, HCl
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 4 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0308025
Project: 1-0102
Project Name: Chevron Texaco
Location: BUCKEYE GP

Lab ID: 0308025-01
Sample ID: TW-11

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0007595-02		11/26/03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	82%	80	120
Bromofluorobenzene	80%	80	120

Lab ID: 0308025-02
Sample ID: TW-13

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0007595-02		11/26/03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	91%	80	120
Bromofluorobenzene	80%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 2

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

CINDY CRAIN
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0308025
Project: 1-0102
Project Name: Chevron Texaco
Location: BUCKEYE GP

Approval: *Raland K. Tuttle*

12-04-03

Date

Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0308025

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0007595-02			<0.001		
Toluene-mg/L		0007595-02			<0.001		
Ethylbenzene-mg/L		0007595-02			<0.001		
p/m-Xylene-mg/L		0007595-02			<0.001		
o-Xylene-mg/L		0007595-02			<0.001		
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0308025-02	0	0.1	0.095	95.0%	
Toluene-mg/L		0308025-02	0	0.1	0.091	91.0%	
Ethylbenzene-mg/L		0308025-02	0	0.1	0.090	90.0%	
p/m-Xylene-mg/L		0308025-02	0	0.2	0.179	89.5%	
o-Xylene-mg/L		0308025-02	0	0.1	0.087	87.0%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0308025-02	0	0.1	0.087	87.0%	8.8%
Toluene-mg/L		0308025-02	0	0.1	0.083	83.0%	9.2%
Ethylbenzene-mg/L		0308025-02	0	0.1	0.081	81.0%	10.5%
p/m-Xylene-mg/L		0308025-02	0	0.2	0.162	81.0%	10.0%
o-Xylene-mg/L		0308025-02	0	0.1	0.080	80.0%	8.4%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0007595-05		0.1	0.092	92.0%	
Toluene-mg/L		0007595-05		0.1	0.088	88.0%	
Ethylbenzene-mg/L		0007595-05		0.1	0.087	87.0%	
p/m-Xylene-mg/L		0007595-05		0.2	0.174	87.0%	
o-Xylene-mg/L		0007595-05		0.1	0.084	84.0%	

CHAIN—OF—CUSTODY RECORD

LA arson & Associates, Inc. Fax: 915-687-0456
Environmental Consultants 915-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

LAB. I.D. NUMBER (LAB USE ONLY) REMARKS
(I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)

030805-01
02

PARAMETERS/METHOD NUMBER

1 BTEX (86218)

NUMBER OF CONTAINERS

02

SITE MANAGER: *Curly Green*

PROJECT NAME: *Buckhorn CR*

LAB. PO #

SAMPLE IDENTIFICATION

12-11
12-13

OTHER

SOIL

WATER

TIME

DATE

11/21/03 1350
11/21/03 1403

DATE: TIME:

RECEIVED BY: (Signature)

SAMPLE SHIPPED BY: (Circle)

FEDEX

BUS

AIRBILL #:

HAND DELIVERED UPS OTHER:

WHITE - RECEIVING LAB

YELLOW - RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)

PINK - PROJECT MANAGER

GOLD - QA/QC COORDINATOR

SAMPLE TYPE:

DATE: TIME:

RELINQUISHED BY: (Signature)

DATE: TIME:

RECEIVED BY: (Signature)

DATE: TIME:

TURNAROUND TIME NEEDED

DATE: *12/1/03* TIME: *1410*

DATE: *12/1/03* TIME: *1741*

COMMENTS:

RECEIVED BY: (Signature)

Pal-SK

DATE: *11-21-03* TIME: *1741*

RECEIVING LABORATORY: *ECOT*

ADDRESS: *12600 W I-20 E*

CITY: STATE: ZIP: PHONE:

CONTACT: PHONE:

SAMPLE CONDITION WHEN RECEIVED:

LA CONTACT PERSON:

Tracy Lee

LARSON & ASSOCIATES, INC.

P.O. Box 50685 ♦ Midland, Texas 79710-0685

Ph. (432) 687-0901

Price, Wayne

From: Cindy Crain [cindy@laenvironmental.com]
Sent: Thursday, November 21, 2002 3:45 PM
To: Price, Wayne
Cc: Rodney Bailey
Subject: Re: Texaco Buckeye Compressor Station Report and proposal

Wayne,

Thank you for your quick response!

Cindy Crain

— Original Message —

From: Price, Wayne
To: 'Cindy Crain' ; Price, Wayne
Sent: Thursday, November 21, 2002 4:30 PM
Subject: RE: Texaco Buckeye Compressor Station Report and proposal

APPROVED!

-----Original Message-----

From: Cindy Crain [mailto:cindy@laenvironmental.com]
Sent: Thursday, November 21, 2002 3:16 PM
To: wprice@state.nm.us
Subject: Texaco Buckeye Compressor Station Report and proposal

Wayne,

I was informed that you received the Groundwater Investigation Report and proposal for additional investigation at the Texaco E&P Buckeye Compressor Station, that I faxed to you earlier today.

This e-mail is to request that approval be granted for the work proposed within that report.

If you have questions or need additional information, please give me a call.

Thank you,
Cindy Crain
Larson & Associates, Inc.
507 N. Marienfeld, Suite 202
Midland, TX 79701
Phone (915) 687-0901
Fax (915) 687-0456
Mobile (915) 556-8665

11/27/2002

November 18, 2002

Mr. Wayne Price
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: Groundwater Investigation Report, Buckeye Compressor Station (GW-029), Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East, Lea County, New Mexico

Dear Mr. Price:

Texaco Exploration and Production Inc. (Texaco), former operator of the Buckeye Compressor Station (Site), has retained Larson and Associates, Inc. (LA) to investigate the source and extent of dissolved benzene that was reported in a sample from a well at the Site. The benzene impact was detected during renewal of the groundwater discharge plan (GW-029). An initial investigation was performed by LA from June 4, 2002, to June 14, 2002. The results of that investigation were submitted to the New Mexico Oil Conservation Division (NMOCD) in a report dated August 15, 2002, and included a proposal to install additional monitoring wells to delineate the limits of the dissolved benzene plume. This report delivers the results of the additional investigation proposed in the August 15, 2002 report, and approved by the NMOCD. Figure 1 presents a Site location and topographic map. Figure 2 presents site details.

Current Investigation

Seven additional monitoring wells (MW-9 through MW-15) were installed at the Site from August 27, 2002, to August 30, 2002, in accordance with the proposal dated August 15, 2002. Scarborough Drilling, Inc. used an air rotary drilling rig to drill the monitoring wells. Because of the large thickness of sand encountered from approximately 50 feet below ground surface (bgs) to total depths of approximately 145 bgs, water was introduced to the drilling process at a depth of approximately 60 bgs at each well location. Soil samples were collected with a split spoon sampler at ground surface, and approximately every five (5) feet bgs to approximately 21 feet bgs, and approximately every ten (10) feet thereafter, until water had to be used to effectively drill the remaining depth from approximately 60 to 145 feet bgs. The split spoon sampler was thoroughly washed between sample events, and the drilling rig and associated equipment (i.e., bit, rods, etc.) were washed between locations using a high-pressure hot water washer. Drill cuttings were placed on the ground adjacent to the monitoring wells. The soil samples were placed in clean glass sample jars, labeled and chilled in an ice chest pending possible laboratory analysis. A portion of each sample was also placed in a clean glass sample jar for headspace analysis. The headspace jars were filled approximately $\frac{3}{4}$ 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 (through the aluminum foil), and the concentration of organic vapors was displayed by the instrument in parts per million (ppm). The maximum PID measurement of samples from all monitoring wells was 3.7 ppm, encountered in MW-9 at a depth of 41 feet bgs; therefore, no soil samples were

submitted to the laboratory for analysis. Appendix A includes the well logs from each monitoring well, with PID readings graphically displayed on each log.

The monitoring wells were constructed with a threaded 2-inch schedule 40 PVC well screen and riser. The well screen, approximately 20 feet in length, was placed above and below the groundwater level observed in monitoring wells previously installed at the Site (MW-1 through MW-8). Graded silica sand was placed around the well screen to approximately three feet above the screen. Approximately three feet of bentonite chips was placed above the sand, and hydrated with potable water. The remainder of the annulus was filled with cement and bentonite grout to about 1 foot bgs. Each well is secured with a locking above-grade cover, anchored in a concrete pad measuring approximately 3 X 3 feet. An electric submersible pump was used to develop the wells until groundwater was visibly clear of sediment. A professional land surveyor (Piper Surveying Company), registered in the State of New Mexico, surveyed the new wells for top-of-casing and ground elevation. Table 6 presents a summary of monitoring well drilling and completion details. Depth to groundwater was measured in the new wells (MW-9 through MW-15) and the existing monitoring wells (MW-1 through MW-8) on October 8, 2002. The depths to groundwater measurements are presented in Tables 6 and 7. Appendix A presents the monitoring well completion records.

Groundwater samples were collected from monitoring wells MW-1 through MW-15 on October 8 and 9, 2002, and were analyzed for BTEX. Table 3 presents a summary of the BTEX analyses of groundwater samples. Appendix B presents the laboratory reports.

Investigation Results

The elevation of the groundwater surface ranged from 3859.85 feet above mean sea level (AMSL) at well MW-12 (up gradient) to 3857.74 feet AMSL at well MW-4 located east of the Site. Groundwater flow was generally from west to east at a gradient of approximately 0.002 feet per foot, with a northwest to southeast component and a southwest to northeast component. Figure 3 presents a groundwater potentiometric surface map for October 8, 2002.

The groundwater sample analyses were compared to the human health standards established by the New Mexico Water Quality Control Commission (NMWQCC). Dissolved benzene exceeded the NMWQCC human health standard of 0.01 mg/L in the following samples:

<u>Well</u>	<u>Benzene (mg/L)</u>
MW-1	3.56
MW-2	1.73
MW-3	4.80
MW-4	0.705
MW-5	0.489
MW-6	5.45
MW-7	0.086
MW-8	0.579
MW-10	0.029
MW-13	0.065
MW-14	3.63

Mr. Wayne Price
November 18, 2002
Page 3

Figure 4 presents an isopleth map for benzene that shows migration of two separate plumes off the Site boundary. Dissolved benzene concentrations in TW-11, 13 and 14, from a July 29, 2002 sampling event were included on Figure 4 to exhibit the limits of the dissolved benzene plumes. The limits of dissolved benzene in groundwater up gradient (northwest) and downgradient (northeast and east) were not determined during the current investigation. Dissolved toluene exceeded the NMWQCC human health standard of 0.75 mg/L in the groundwater samples obtained from MW-3. All other toluene, ethylbenzene and xylene levels were below the human health standards established by the NMWQCC.

Groundwater samples were collected from recovery wells (RW-1 and RW-2) located southeast of the Site, on August 20, 2002, and analyzed for anions, cations and total dissolved solids (TDS). Table 5 presents a summary of anions, cations and TDS analysis of groundwater samples. Figure 4 shows the location of RW-1 and RW-2.

Proposed Additional Investigation

ChevronTexaco proposes to install additional monitoring wells to delineate the limits of the dissolved benzene plume northwest, west, southwest, northeast and east of the Site. Approximately six (6) wells (MW-16 through MW-21) will be installed at approximate locations shown on Figure 4. The wells will be installed in accordance with procedures described in the work plan dated April 12, 2002. Soil samples will be collected during drilling for headspace analysis, and possible laboratory analysis according to NMOCD guidelines. Groundwater samples will be collected from the new and existing wells (MW-1 through MW-21) for BTEX analysis. A final report will be submitted to the NMOCD that includes boring and well completion logs, laboratory reports, groundwater flow map, isopleth map for benzene, and proposed remediation plan.

Please call Mr. Rodney Bailey at (915) 687-7100 or myself at (915) 687-0901 if you have questions.

Sincerely,
Larson & Associates, Inc.

Cindy K. Crain

Cindy K. Crain
Geologist

Encl.

Cc: Mr. Rodney G. Bailey – ChevronTexaco
Mr. Cal Wrangham – Dynegy
Mr. Paul Sheeley – NMOCD, Hobbs District

TABLES

TABLES

Table 1:

Summary of BTEX, TPH and Chloride Analysis of Soil Samples
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Borehole Number	Sample Date	Sample Depth (feet BGS)	PID (ppm)	Benzene mg/kg	Total BTEX mg/kg	DRO >C12-C35 mg/kg	GRO C6-C12 mg/kg	TPH (C6-C35) mg/kg	Chloride mg/kg
BH-1	6/4/2002	5-6	19.9	<0.025	<0.125	<10.0	<10.0	<20.0	<10.0
BH-1	6/4/2002	30-31	14.4	<0.025	<0.125	<10.0	<10.0	<20.0	<10.0
BH-2	6/4/2002	5-6	947.6	<0.025	<0.125	<10.0	<10.0	<20.0	47.3
BH-2	6/4/2002	30-31	36.8	<0.025	<0.125	29.2	<10.0	<39.2	22.2
BH-3	6/5/2002	5-6	123	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-3	6/5/2002	30-31	36.8	---	---	60.6	34.7	95.3	35.4
BH-4	6/5/2002	10-11	218.6	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-4	6/5/2002	30-31	52.4	---	---	17.2	<10.0	<27.2	17.7
BH-5	6/5/2002	20-21	22.4	---	---	<10.0	<10.0	<20.0	17.7
BH-5	6/5/2002	30-31	16.8	---	---	<10.0	<10.0	<20.0	17.7
BH-6	6/5/2002	0-7"	41.5	---	---	27.0	<10.0	<37.0	17.7
BH-6	6/5/2002	30-31	11.4	---	---	<10.0	<10.0	<20.0	17.7
BH-7	6/5/2002	5-6	172.2	<0.025	<0.125	78.6	<10.0	<88.6	53.2
BH-7	6/5/2002	30-31	32.5	---	---	20.9	<10.0	<30.9	50.6
BH-8	6/6/2002	5-6	1620	<0.025	<0.125	15.1	<10.0	<25.1	97.5
BH-8	6/6/2002	30-31	58.5	<0.025	<0.125	<10.0	<10.0	<20.0	26.6
BH-9	6/6/2002	5-6	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	97.5
BH-9	6/6/2002	30-31	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	26.6
BH-10	6/6/2002	0-2	1431	<0.025	<0.125	1,750.0	357.0	2,107.0	33.2
BH-10	6/6/2002	20-21	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	33.2
BH-10	6/6/2002	30-31	>1999	<0.025	<0.125	30.1	<10.0	<40.1	29.5
BH-11	6/7/2002	5-6	183.6	<0.025	<0.125	<10.0	<10.0	<20.0	44.3
BH-11	6/7/2002	30-31	55.8	<0.025	<0.125	<10.0	<10.0	<20.0	44.3

Borehole Number	Sample Date	Sample Depth (feet BGS)	PID (ppm)	Benzene mg/kg	Total BTEX mg/kg	DRO >C12-C35 mg/kg	GRO C6-C12 mg/kg	TPH (C6-C35) mg/kg	Chloride mg/kg
BH-12	6/7/2002	5-6	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-12	6/7/2002	15-16	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-12	6/7/2002	30-31	143.8	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-13	6/7/2002	0-2	26.8	---	---	5,810.0	91.6	5,901.6	222.0
BH-13	6/7/2002	30-31	11.2	---	---	14.4	<10.0	<24.4	17.7
BH-14	6/7/2002	0-6"	322.7	<0.025	<0.125	13.4	<10.0	<23.4	17.7
BH-14	6/7/2002	15-16	64.8	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-14	6/7/2002	30-31	30.8	---	---	<10.0	<10.0	<20.0	17.7
BH-15	6/7/2002	0-6"	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-15	6/7/2002	15-16	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-15	6/7/2002	30-31	121.4	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-16	6/6/2002	0-1	341.9	<0.025	<0.125	<10.0	<10.0	<20.0	19.7
BH-16	6/6/2002	30-31	7.8	---	---	<10.0	<10.0	<20.0	19.7
BH-17	6/7/2002	0-1	>1999	0.063	<0.401	627.0	16.7	643.7	19.7
BH-17	6/7/2002	15-16	>1999	<0.025	<0.143	375.0	24.2	399.2	8.9
BH-17	6/7/2002	30-31	140.6	<0.025	<0.125	318.0	27.8	345.8	17.7
MW-1	6/10/2002	5-6	1359	<0.025	<0.125	19.9	<10.0	<29.9	17.7
MW-1	6/11/2002	80-82	551.9	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
MW-2	6/11/2002	30-31	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	12.7
MW-2	6/11/2002	80-81	1451	<0.025	<0.126	<10.0	<10.0	<20.0	17.7
MW-3	6/12/2002	5-6	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	53.2
MW-3	6/12/2002	60-61	>1999	---	---	40.9	48.3	89.2	17.7
MW-4	6/13/2002	20-21	107.7	<0.025	<0.125	<10.0	<10.0	<20.0	3690.0
MW-4	6/13/2002	60-61	22	---	---	<10.0	<10.0	<20.0	4960.0
MW-5	6/14/2002	5-6	1751	<0.025	<0.125	<10.0	<10.0	<20.0	35.4
MW-5	6/14/2002	60-61	13.7	---	---	<10.0	<10.0	<20.0	<10.0

Borehole Number	Sample Date	Sample Depth (feet BGS)	PID (ppm)	Benzene mg/kg	Total BTEX mg/kg	DRO >C12-C35 mg/kg	GRO C6-C12 mg/kg	TPH (C6-C35) mg/kg	Chloride mg/kg
MW-6	6/12/2002	5-6	24.3	---	---	<10.0	<10.0	<20.0	160.0
MW-6	6/12/2002	60-61	7.6	---	---	<10.0	<10.0	<20.0	17.7
MW-7	6/13/2002	10-11	256.3	<0.025	<0.125	<10.0	<10.0	<20.0	<10.0
MW-7	6/13/2002	60-61	21.7	---	---	<10.0	<10.0	<20.0	17.7
MW-8	6/12/2002	5-6	24.8	---	---	<10.0	<10.0	<10.0	53.2
MW-8	6/12/2002	60-61	32.4	---	---	<10.0	<10.0	<10.0	17.7

Notes:

1. BGS:
2. mg/kg:
3. ppm:
4. <:
5. ---:

All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas

Depth in feet below ground surface

Concentration in milligrams per kilogram

Concentration in parts per million

Concentration below test method detection limit

No data available

Table 2:

Summary of RCRA 7 Total Metals Analysis of Soil Samples
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Borehole Number	Sample Date	Sample Depth (feet BGS)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Mercury (mg/kg)
BH-1	6/4/2002	5-6	3.8	302.0	0.144	1.56	<0.550	<0.20	<0.10	<0.100
BH-1	6/4/2002	30-31	2.5	111.0	0.177	4.07	<0.550	<0.20	<0.10	<0.080
BH-2	6/4/2002	30-31	3.63	30.2	0.226	5.00	<0.550	<0.20	<0.10	<0.080
BH-3	6/5/2002	30-31	1.95	31.4	0.322	5.91	<0.550	<0.20	<0.10	<0.080
BH-4	6/5/2002	30-31	3.79	64.5	0.135	4.61	<0.550	<0.20	<0.10	<0.080
BH-5	6/5/2002	20-21	5.88	88.4	0.151	3.22	<0.550	<0.20	<0.10	<0.080
BH-6	6/5/2002	0-7"	5.71	126.0	1.560	179.00	2.9	<0.20	<0.10	<0.10
BH-7	6/5/2002	5-6	3.51	168.0	0.360	5.50	0.7	<0.200	0.785	<0.100
BH-8	6/6/2002	5-6	2.78	81.4	0.448	5.48	<0.550	<0.200	0.496	<0.040
BH-9	6/6/2002	5-6	1.55	65.1	0.340	4.34	<0.550	<0.200	0.155	<0.040
BH-10	6/6/2002	0-2	3.4	124.0	0.844	16.70	3.8	3.7	<0.100	<0.100
BH-11	6/7/2002	5-6	1.51	78.3	0.394	4.12	<0.550	0.9	<0.100	<0.040
BH-12	6/7/2002	5-6	4.15	1918.0	0.118	1.58	<0.550	<0.200	<0.100	<0.100
BH-13	6/7/2002	0-2	16.1	254.0	0.435	4.63	2.9	<0.200	<0.100	<0.100
BH-14	6/7/2002	0-6"	11.1	269.0	0.690	8.57	7.2	<0.200	<0.100	<0.100
BH-15	6/7/2002	0-6"	5.14	288.0	0.421	2.50	1.1	<0.200	<0.100	<0.100
BH-16	6/6/2002	0-1	3.41	93.3	1.050	14.00	3.0	<0.200	<0.100	<0.100
BH-17	6/7/2002	0-1	22.3	341.000	0.280	2.94	5.9	<0.200	<0.100	<0.100

Notes:

1. BGS:
2. mg/kg:
3. <: Concentration below test method detection limit
4. ---: No data available

All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas

Depth in feet below ground surface

Concentration in milligrams per kilogram

Concentration below test method detection limit

No data available

Table 3: Summary of BTEX Analysis of Groundwater Samples
Texaco Exploration and Production, Inc., Buckeye Compressor Station
Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
Lea County, New Mexico

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	p/m Xylene (mg/L)	o-Xylene (mg/L)	Total BTEX (mg/L)
MW-1	6/19/2002	1.74	0.024	<0.010	<0.010	<0.010	<1.794
MW-2	6/19/2002	1.15	<0.005	0.009	0.008	<0.005	<1.177
MW-3	6/20/2002	1.05	0.739	0.345	0.300	0.116	2.6
MW-4	6/20/2002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-5	6/20/2002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
MW-6	6/20/2002	0.444	<0.001	<0.001	<0.001	<0.001	<0.001
MW-7	6/20/2002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-8	6/20/2002	1.23	<0.005	0.046	0.021	<0.005	<1.307
Duplicate	6/20/2002	1.9	<0.005	0.075	0.033	<0.005	<2.018
TW-11	7/29/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
TW-13	7/29/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
TW-14	7/29/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005

Notes: All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas

1. mg/L: Concentration in milligrams per liter

2. <: Concentration below test method detection limit

3. ---: No data available

4 Duplicate sample collected from MW-8

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	p/m Xylene (mg/L)	o-Xylene (mg/L)	Total BTEX (mg/L)
Standard (WQCC)		0.01	0.75	0.75	0.62		
MW-1	10/9/2002	3.56	<0.010	<0.010	<0.010	<0.010	<3.600
MW-2	10/9/2002	1.73	<0.010	0.017	0.023	<0.010	<1.790
MW-3	10/9/2002	4.80	1.24	0.088	0.125	0.053	6.306
MW-4	10/9/2002	0.705	<0.005	0.005	0.011	<0.005	<0.731
MW-5	10/9/2002	0.489	<0.001	<0.001	<0.001	<0.001	<0.493
MW-6	10/9/2002	5.45	<0.010	<0.010	0.032	<0.010	<5.512
MW-7	10/9/2002	0.086	<0.001	<0.001	0.001	<0.001	<0.090
MW-8	10/9/2002	0.579	<0.005	0.031	0.018	<0.005	<0.638
MW-9	10/9/2002	0.004	0.001	<0.001	0.023	<0.001	<0.030
MW-10	10/8/2002	0.029	<0.001	<0.001	<0.001	<0.001	<0.033
MW-11	10/8/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
MW-12	10/8/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
MW-13	10/8/2002	0.065	<0.001	<0.001	<0.001	<0.001	<0.069
MW-14	10/9/2002	3.63	0.014	0.098	0.169	0.018	3.929
MW-15	10/9/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005

Notes: All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas

1. mg/L: Concentration in milligrams per liter

2. <: Concentration below test method detection limit

Table 4:

Summary of RCRA 7 Total Metals Analysis of Groundwater Samples
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Well Number	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury, Dissolved (mg/L)
MW-1	6/19/2002	<0.008	0.131	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-2	6/19/2002	<0.008	0.254	<0.001	<0.002	<0.011	<0.004	0.002	<0.002
MW-3	6/20/2002	0.009	0.194	<0.001	<0.002	<0.011	0.006	<0.002	<0.002
MW-4	6/20/2002	<0.008	0.219	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-5	6/20/2002	<0.008	0.209	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-6	6/20/2002	<0.008	0.182	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-7	6/20/2002	<0.008	0.140	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-8	6/20/2002	<0.008	0.650	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002

Notes:

1. mg/L;
 2. <;
 3. ---;
- All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas
 Concentration in milligrams per liter
 Concentration below test method detection limit
 No data available

Table 5:

Summary of Anions, Cations and TDS Analysis of Groundwater Samples
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Well Number	Sample Date	Bicarbonate Alkalinity (mg/L)	Carbonate Alkalinity (mg/L)	Chloride (mg/L)	Hydroxide Alkalinity (mg/L)	Sulfate, 375.4 (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)
Standard (WQCC)		250				600	1000				
MW-1	6/19/2002	262	<0.10	97.5	<0.10	46.6	87.6	17.4	6.20	41.0	458
MW-2	6/19/2002	220	<0.10	88.6	<0.10	26.6	79.7	14.3	3.72	24.0	509
MW-3	6/20/2002	177	<0.10	56.1	<0.10	54.7	45.4	8.9	3.57	41.0	335
MW-4	6/20/2002	216	<0.10	142.0	<0.10	62.5	83.6	16.8	5.05	61.0	588
MW-5	6/20/2002	160	<0.10	160.0	<0.10	57.6	71.6	12.4	4.91	68.0	521
MW-6	6/20/2002	180	<0.10	28.4	<0.10	41.0	41.3	7.7	3.19	36.0	329
MW-7	6/20/2002	182	<0.10	31.9	<0.10	43.4	37.2	7.3	3.63	51.0	337
MW-8	6/20/2002	230	<0.10	31.9	<0.10	26.2	57.8	11.9	2.85	21.0	359
RW-1	8/20/2002	120	<0.10	230.0	<0.10	73.4	31.1	10.5	43.00	87.6	698
RW-2	8/20/2002	168	40	301.0	<0.10	101.0	7.9	12.6	266.00	191.0	893

Notes:

1. mg/L:
2. <: Concentration below test method detection limit
3. ---: No data available

All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas

Table 6:

Summary of Monitoring Well Drilling and Completion Details
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Well Number	Date Drilled	Ground Elevation (Feet AMSL)	Top of Casing Elevation (Feet AMSL)	Drilled Depth (Feet BGS)	Well Depth (Feet TOC)	Well Diameter (Inches)	Screen Interval (Feet BGS)	Depth to Groundwater 10/8/02 (Feet TOC)
MW-1	6/10/2002	3988.48	3990.85	140.0	142.09	2	122.47-142.09	132.26
MW-2	6/11/2002	3988.71	3991.08	140.0	142.37	2	123.27-142.89	132.46
MW-3	6/12/2002	3989.65	3991.75	140.0	142.34	2	123.72-143.34	133.19
MW-4	6/13/2002	3989.25	3991.57	140.0	142.32	2	122.47-142.09	133.83
MW-5	6/14/2002	3989.68	3993.12	143.0	146.44	2	125.97-145.59	133.73
MW-6	6/12/2002	3989.38	3991.94	140.0	142.56	2	122.37-141.99	132.29
MW-7	6/13/2002	3990.28	3992.89	140.0	142.61	2	122.17-141.79	133.81
MW-8	6/12/2002	3988.83	3991.27	140.0	143.19	2	123.57-143.19	132.20
MW-9	8/27/2002	3986.41	3990.40	145.0	148.99	2	124.87 - 144.49	132.33
MW-10	8/28/2002	3989.74	3992.85	145.0	148.11	2	124.87 - 144.49	133.64
MW-11	8/29/2002	3988.9	3991.74	145.0	147.84	2	124.87 - 144.49	132.18
MW-12	8/29/2002	3986.61	3989.62	145.0	148.01	2	124.87 - 144.49	129.77
MW-13	8/28/2002	3987.47	3990.60	145.0	148.13	2	124.87 - 144.49	132.59
MW-14	8/30/2002	3988.3	3991.27	145.0	147.97	2	124.87 - 144.49	133.31
MW-15	8/30/2002	3989.2	3992.42	146.0	149.22	2	125.87 - 145.49	133.82

Notes:

Wells MW-1 through MW-15 installed by Scarborough Drilling, Inc., Lamesa, Texas

1. BGS: Depth in feet below ground surface
2. AMSL: Elevation in feet above mean sea level
3. TOC: Depth in feet below top-of-casing

Table 7:

Summary of Monitoring Well Gauging Data
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Well Number	Date Gauged	Ground Elevation (Feet AMSL)	Top of Casing Elevation (Feet AMSL)	Drilled Depth (Feet BGS)	Well Depth (Feet TOC)	Well Diameter (Inches)	Screen Interval (Feet BGS)	Depth to Groundwater (Feet TOC)
MW-1	6/19/2002	3988.48	3990.85	140.0	142.09	2	122.47-142.09	132.49
	7/29/2002							132.55
	10/8/2002							132.26
MW-2	6/19/2002	3988.71	3991.08	140.0	142.37	2	123.27-142.89	132.87
	7/29/2002							132.92
	10/8/2002							132.46
MW-3	6/19/2002	3989.65	3991.75	140.0	142.34	2	123.72-143.34	133.52
	7/29/2002							133.58
	10/8/2002							133.19
MW-4	6/19/2002	3989.25	3991.57	140.0	142.32	2	122.47-142.09	134.35
	7/29/2002							134.25
	10/8/2002							133.83
MW-5	6/19/2002	3989.68	3993.12	143.0	146.44	2	125.97-145.59	134.05
	7/29/2002							134.06
	10/8/2002							133.73
MW-6	6/19/2002	3989.38	3991.94	140.0	142.56	2	122.37-141.99	133.58
	7/29/2002							133.61
	10/8/2002							132.29
MW-7	6/19/2002	3990.28	3992.89	140.0	142.61	2	122.17-141.79	133.94
	7/29/2002							134.03
	10/8/2002							133.81
MW-8	6/19/2002	3988.83	3991.27	140.0	143.19	2	123.57-143.19	132.81
	7/29/2002							132.93
	10/8/2002							132.20

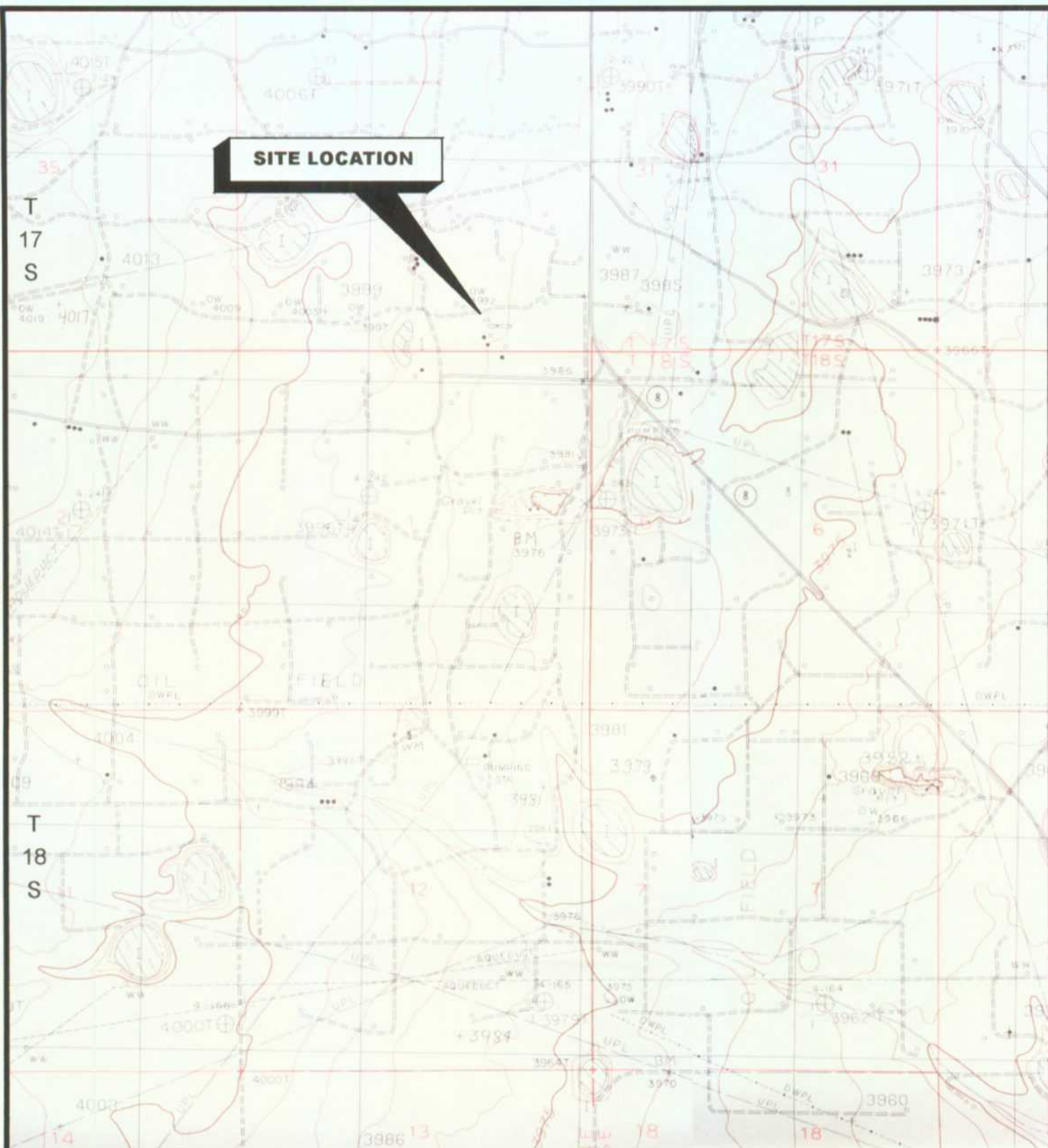
Well Number	Date Gauged	Ground Elevation (Feet AMSL)	Top of Casing Elevation (Feet AMSL)	Drilled Depth (Feet BGS)	Well Depth (Feet TOC)	Well Diameter (Inches)	Screen Interval (Feet BGS)	Depth to Groundwater (Feet TOC)
MW-9	10/8/2002	3986.41	3990.40	145.0	148.99	2	124.87 - 144.49	132.33
MW-10	10/8/2002	3989.74	3992.85	145.0	148.11	2	124.87 - 144.49	133.64
MW-11	10/8/2002	3988.90	3991.74	145.0	147.84	2	124.87 - 144.49	132.18
MW-12	10/8/2002	3986.61	3989.62	145.0	148.01	2	124.87 - 144.49	129.77
MW-13	10/8/2002	3987.47	3990.60	145.0	148.13	2	124.87 - 144.49	132.59
MW-14	10/8/2002	3988.30	3991.27	145.0	147.97	2	124.87 - 144.49	133.31
MW-15	10/8/2002	3989.20	3992.42	146.0	149.22	2	125.87 - 145.49	133.82
WW-1	6/19/2002	3989.37	3990.00	unknown	unknown	4	unknown	131.49
	7/29/2002							131.54
TW-9	7/29/2002	3985.48	3988.60	unknown	unknown	2	unknown	131.27
TW-10	7/29/2002	3985.57	3987.77	unknown	unknown	2	unknown	130.60
TW-11	7/29/2002	3986.51	3989.12	unknown	195.00	2	unknown	132.02
TW-13	7/29/2002	3986.57	3988.70	unknown	183.00	2	unknown	131.70
TW-14	7/29/2002	3984.63	3986.67	unknown	195.00	2	unknown	129.98
TW-15	7/29/2002	3981.74	3984.07	unknown	unknown	2	unknown	125.74
TW-17	7/29/2002	3983.23	3985.22	unknown	unknown	2	unknown	127.16
TW-19	7/29/2002	3982.34	3983.73	unknown	unknown	2	unknown	128.45
TW-20	7/29/2002	3986.38	3988.39	unknown	unknown	2	unknown	131.61
TW-23	7/29/2002	3982.20	3984.62	unknown	unknown	2	unknown	129.49
RW-2	7/29/2002	3986.19	3986.99	unknown	unknown	4	unknown	129.89

Notes: Wells MW-1 through MW-15 installed by Scarborough Drilling, Inc., Lamesa, Texas

1. BGS: Depth in feet below ground surface
2. AMSL: Elevation in feet above mean sea level
3. TOC: Depth in feet below top-of-casing

FIGURES

FIGURES



SITE LOCATION

R-34-E

R-35-E

FIGURE #1

LEA COUNTY, NEW MEXICO

**TEXACO EXPLORATION and
PRODUCTION INC.**

BUCKEYE COMPRESSOR STATION

TOPOGRAPHIC MAP

DATE 04/06/02

NAME

P.L.E.

**Larson &
Associates, Inc.**
Environmental Consultants

TAKEN FROM U.S.G.S

BUCKEYE & LOVING SW, NEW MEXICO 1985

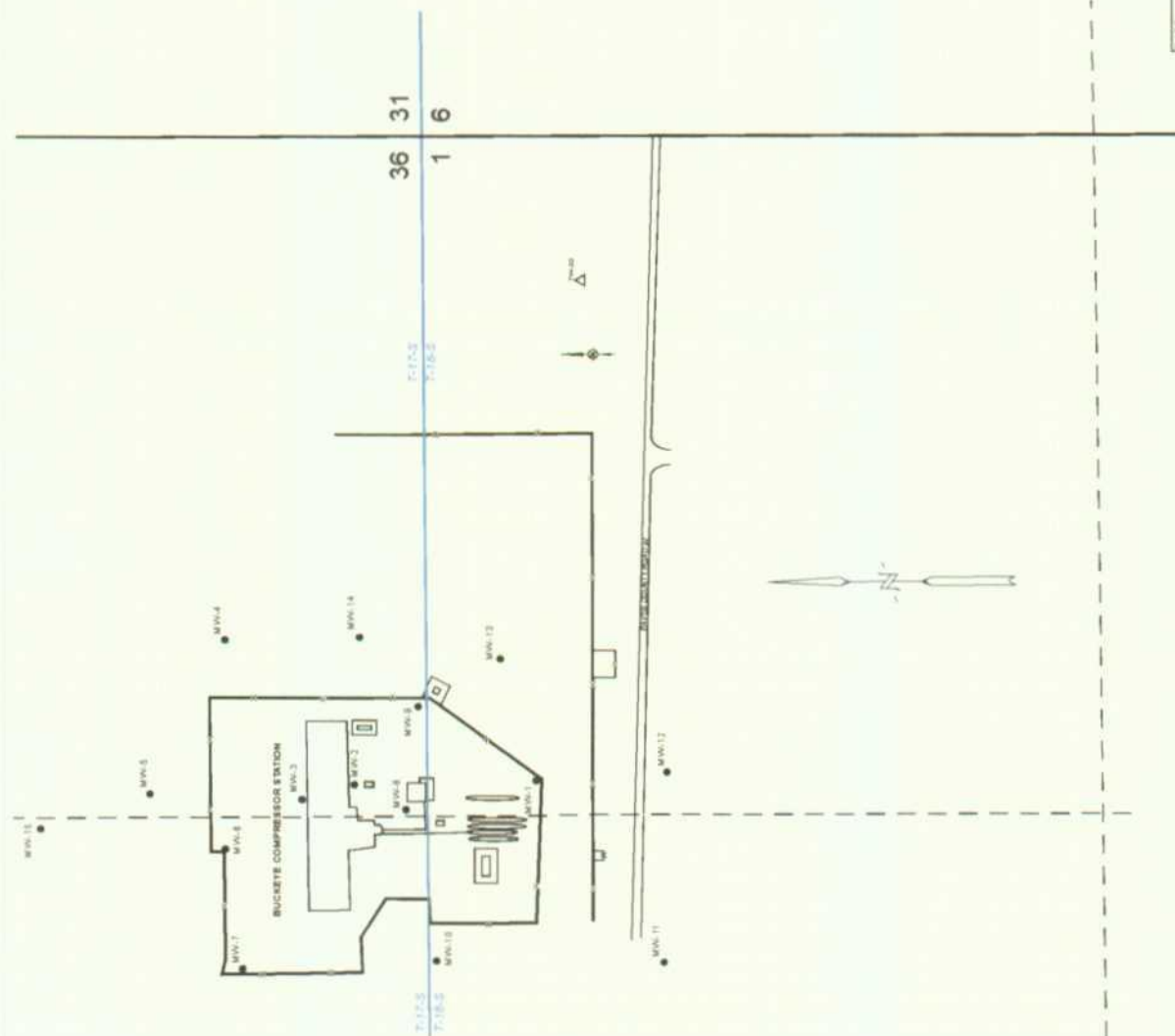
7.5' QUADRANGLES

SCALE: 1"=2000'



WELL DATA

WELL NUMBER	GROUND ELEV. FEET AMSL	TOP-OF CASING FEET AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42



LEGEND
 MW-15
 • MONITORING WELL

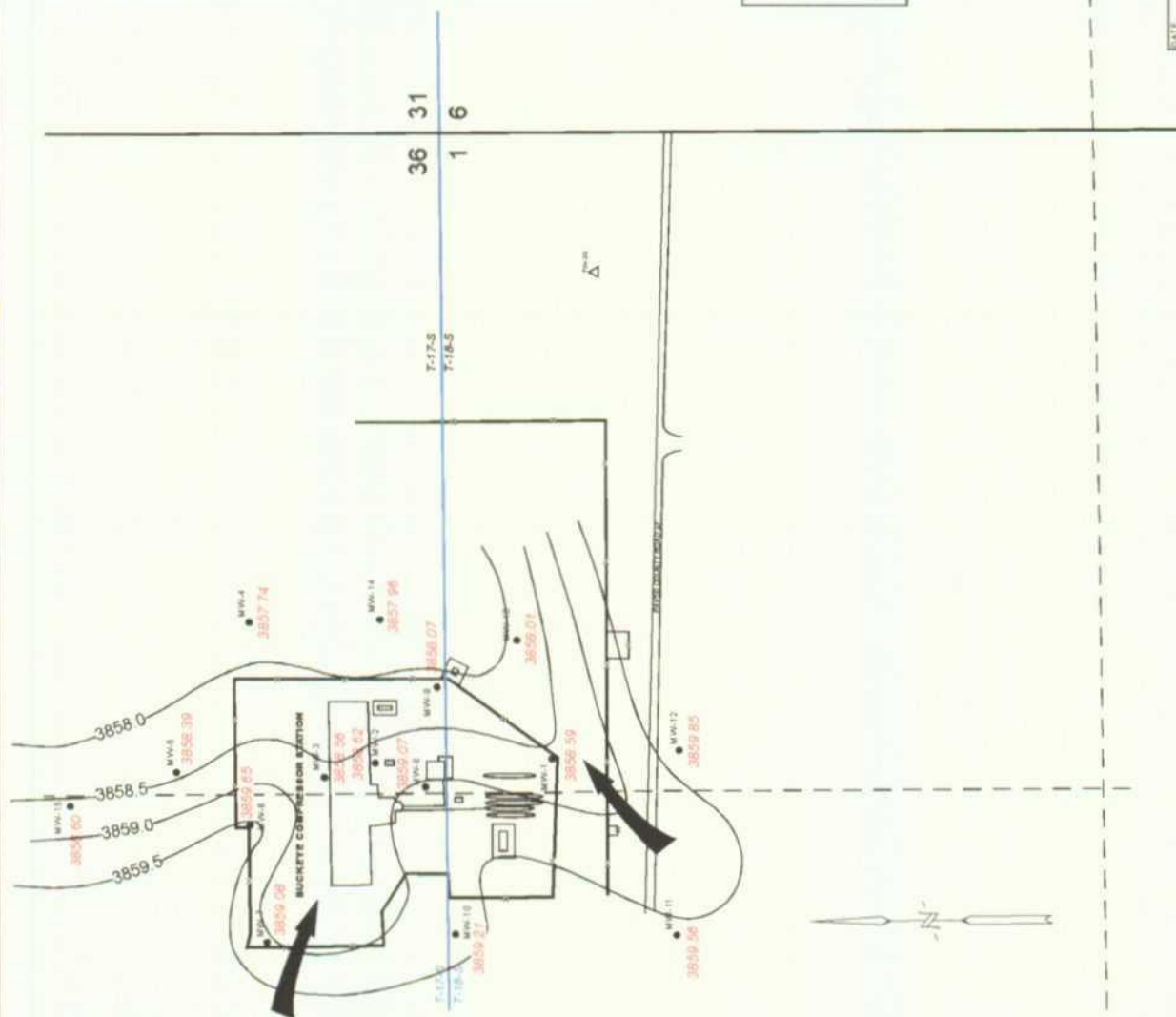
FIGURE #2

LEA COUNTY, NEW MEXICO
TEXACO EXPLORATION and PRODUCTION INC.
 BUCKEYE COMPRESSOR STATION
SITE DETAILS
 MONITORING WELL LOCATIONS
LA Larson & Associates, Inc.
 Environmental Consultants

DATE 02/26/02
 NAME CC
 FILE 2-0102

WELL NUMBER	GROUND ELEV., TOP-OF CASING FEET AMSL	FEET AMSL
1	100.0	100.0
2	100.0	100.0
3	100.0	100.0
4	100.0	100.0
5	100.0	100.0
6	100.0	100.0
7	100.0	100.0
8	100.0	100.0
9	100.0	100.0
10	100.0	100.0
11	100.0	100.0
12	100.0	100.0
13	100.0	100.0
14	100.0	100.0
15	100.0	100.0
16	100.0	100.0
17	100.0	100.0
18	100.0	100.0
19	100.0	100.0
20	100.0	100.0
21	100.0	100.0
22	100.0	100.0
23	100.0	100.0
24	100.0	100.0
25	100.0	100.0
26	100.0	100.0
27	100.0	100.0
28	100.0	100.0
29	100.0	100.0
30	100.0	100.0
31	100.0	100.0
32	100.0	100.0
33	100.0	100.0
34	100.0	100.0
35	100.0	100.0
36	100.0	100.0
37	100.0	100.0
38	100.0	100.0
39	100.0	100.0
40	100.0	100.0
41	100.0	100.0
42	100.0	100.0
43	100.0	100.0
44	100.0	100.0
45	100.0	100.0
46	100.0	100.0
47	100.0	100.0
48	100.0	100.0
49	100.0	100.0
50	100.0	100.0
51	100.0	100.0
52	100.0	100.0
53	100.0	100.0
54	100.0	100.0
55	100.0	100.0
56	100.0	100.0
57	100.0	100.0
58	100.0	100.0
59	100.0	100.0
60	100.0	100.0
61	100.0	100.0
62	100.0	100.0
63	100.0	100.0
64	100.0	100.0
65	100.0	100.0
66	100.0	100.0
67	100.0	100.0
68	100.0	100.0
69	100.0	100.0
70	100.0	100.0
71	100.0	100.0
72	100.0	100.0
73	100.0	100.0
74	100.0	100.0
75	100.0	100.0
76	100.0	100.0
77	100.0	100.0
78	100.0	100.0
79	100.0	100.0
80	100.0	100.0
81	100.0	100.0
82	100.0	100.0
83	100.0	100.0
84	100.0	100.0
85	100.0	100.0
86	100.0	100.0
87	100.0	100.0
88	100.0	100.0
89	100.0	100.0
90	100.0	100.0
91	100.0	100.0
92	100.0	100.0
93	100.0	100.0
94	100.0	100.0
95	100.0	100.0
96	100.0	100.0
97	100.0	100.0
98	100.0	100.0
99	100.0	100.0
100	100.0	100.0

MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3988.65	3991.75
MW-4	3988.25	3991.57
MW-5	3988.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42



LEGEND

- MW-12
 • MONITORING WELL
 GROUNDWATER FLOW DIRECTION
 GROUNDWATER ELEVATION
 FEET AMSL, 10/08/02
 859.85

FIGURE #3

SALA COUNTY NEW MEXICO

TEXACO EXPLORATION and
LEA COUNTY, NEW MEXICO

LEMOO ENTERTAINMENT
PRODUCTION INC.

PRODUCTION INC.
BUCKEYE COMPRESSOR STATION
REAR SW SEC 34 T17S R34E

5E/4 S/2, SEC. 36, T17S, R34E &
NE/4 N/2, SEC. 1, T18S, R34E

GROUNDWATER POTENTIOMETRIC

10/08/02

Arson & Associates, Inc.

Associates, Inc.
Environmental Consultants

DATE _____

NAME _____
TOTAL _____

CC

2-0102

WELL DATA

WELL NUMBER	GROUND ELEV. FEET AMSL	TOP-OF CASING FEET AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
MW-9	3986.41	3990.40
MW-10	3989.74	3992.85
MW-11	3988.90	3991.74
MW-12	3986.61	3989.62
MW-13	3987.47	3990.60
MW-14	3988.30	3991.27
MW-15	3989.20	3992.42

LEGEND

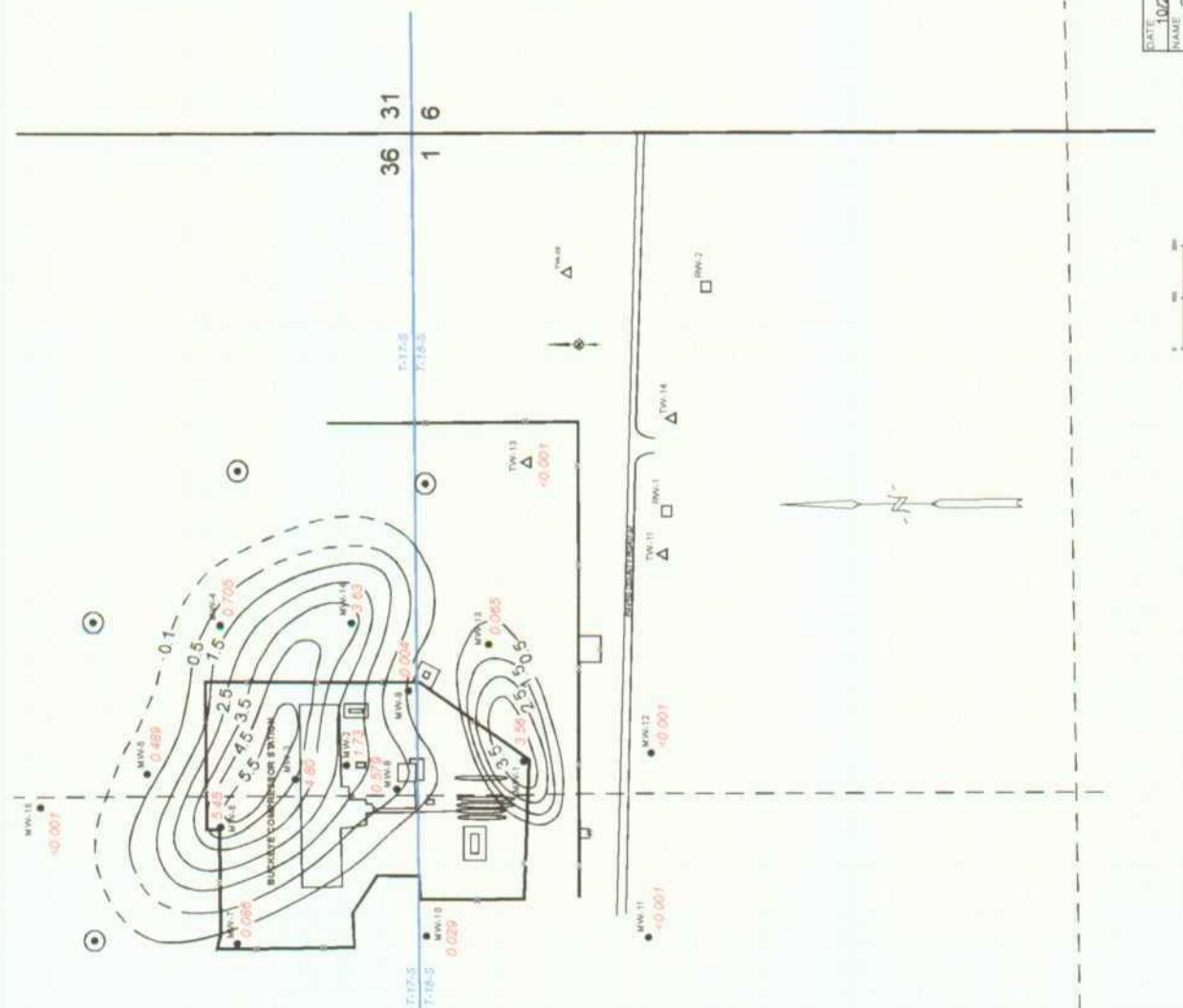
- MW-12 ● MONITORING WELL
BENZENE CONCENTRATION
in GROUNDWATER (MG/L)
1008/2002 & 1009/2002
- TW-12 ▲ EXISTING MONITORING WELL
BENZENE CONCENTRATION in
GROUNDWATER (MG/L) 07/29/02
- PROPOSED MONITORING WELL
LOCATION
- RW-2 □ RECOVERY WELL

FIGURE #4

LEA COUNTY, NEW MEXICO
**TEXACO EXPLORATION and
 PRODUCTION INC.**
 BUCKEYE COMPRESSOR STATION
 SE1/4 S2, SEC. 1, T17S, R34E &
 NE1/4 N2, SEC. 1, T18S, R34E
 BENZENE ISOPLETH MAP
 10/08/02 & 10/09/02

LA **arson & associates, inc.**
 Environmental Consultants

DATE 10/26/02
 NAME CC
 FILE 2-0102



APPENDIX A

APPENDIX A

Client: Texaco

Project: Buckeye Plant

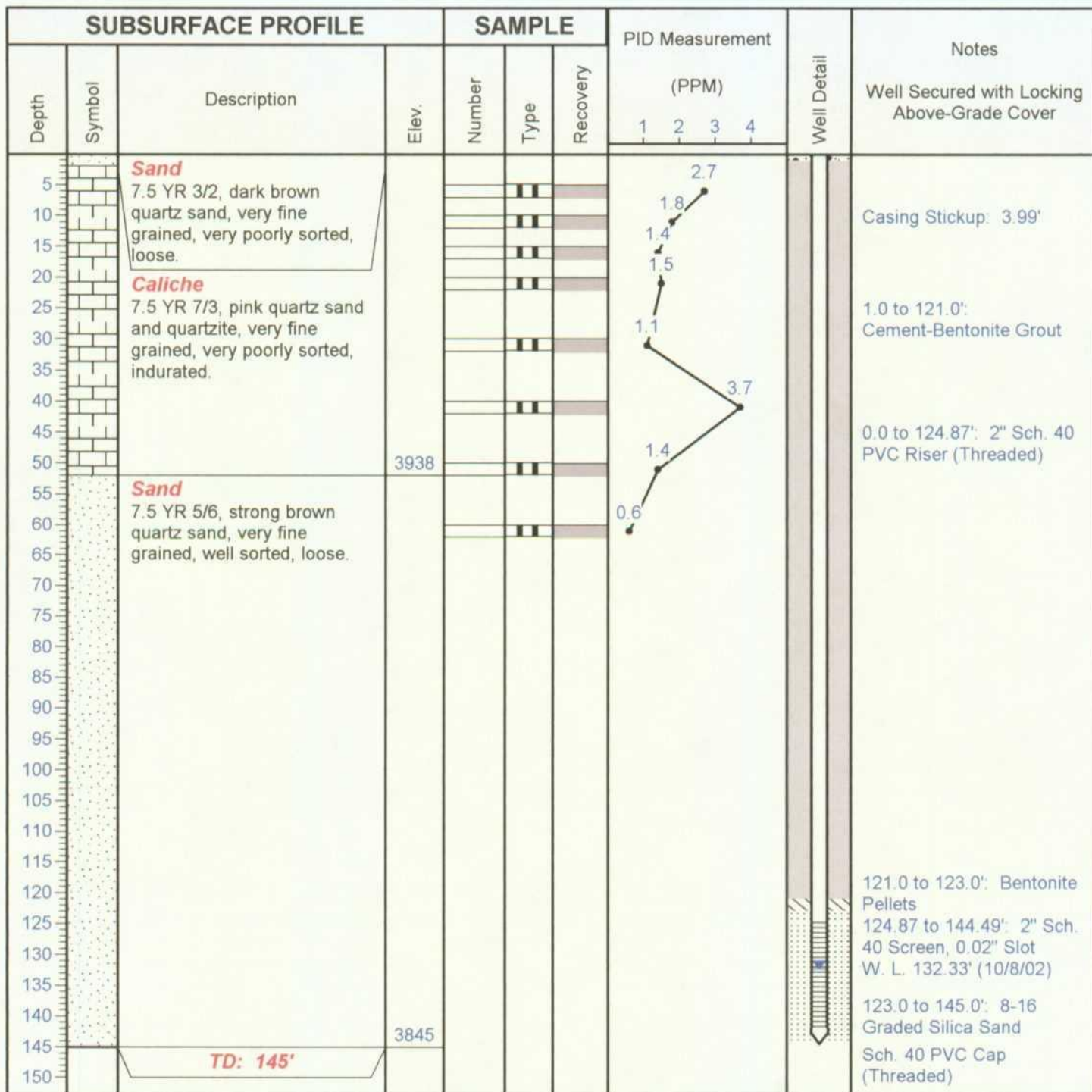
Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-9

Geologist: Cindy K. Crain

Page: 1 of 1



Drilling Method: Rotary (water at 60')

Date Drilled: 8/27/02

Well Size: 2"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3990.40

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Texaco

Project: Buckeye Plant

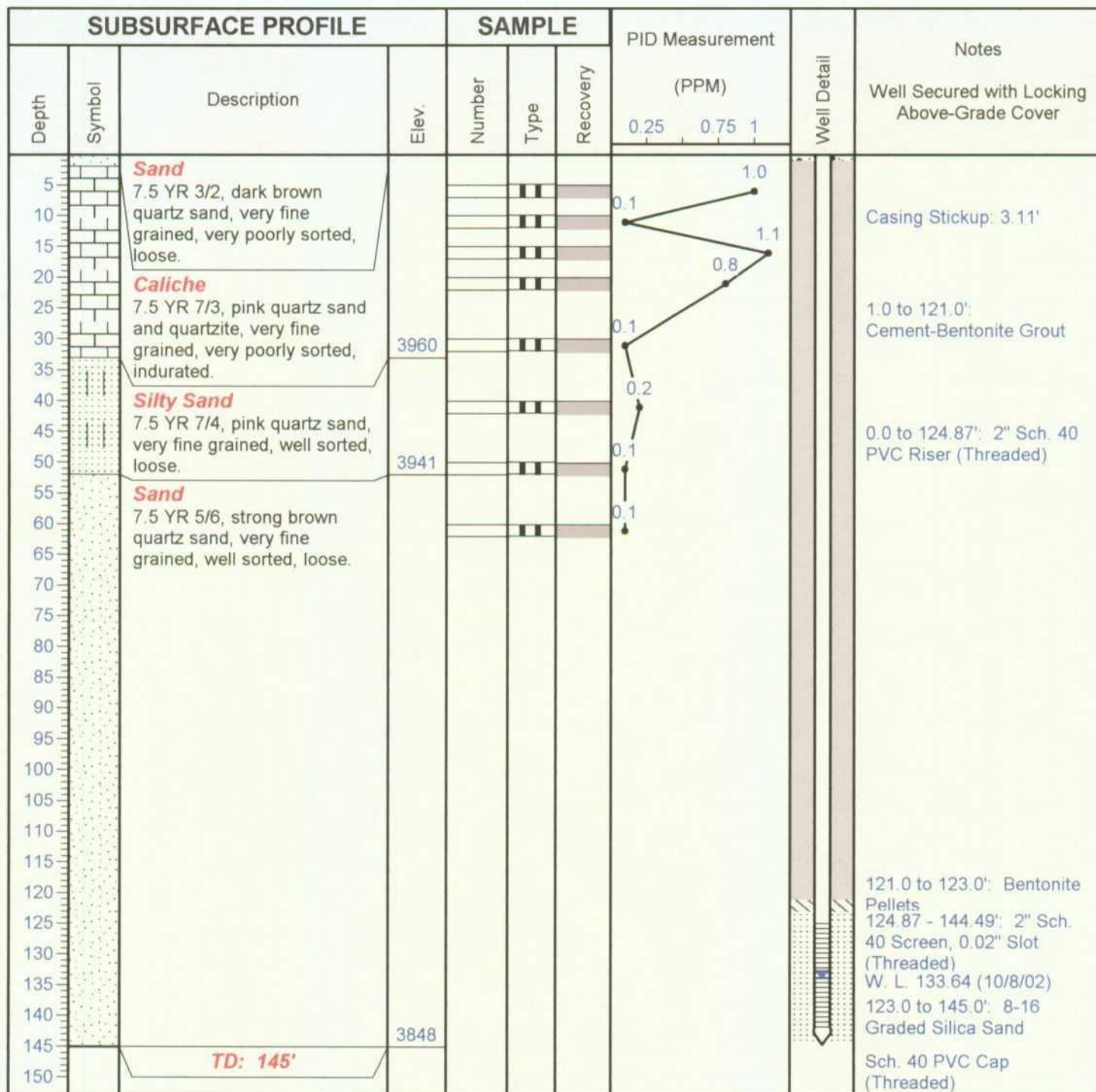
Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-10

Geologist: Cindy K. Crain

Page: 1 of 1



Drilling Method: Rotary (water at 60')

Date Drilled: 8/28/02

Well Size: 2"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3992.85

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-11

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Caliche					0.2		
10		7.5 YR 7/3, pink quartz sand and quartzite, very fine grained, very poorly sorted, very indurated.					0.2		Casing Stickup: 2.84'
15							0.1		
20							0.3		
25									
30							0.1		1.0 to 121.0': Cement-Bentonite Grout
35			3957						
40		Silty Sand					0.1		
45		7.5 YR 7/4, pink quartz sand, very fine grained, well sorted, loose.							
50							0.2		0.0 to 124.87': 2" Sch. 40 PVC Riser (Threaded)
55			3934						
60		Sand					0.1		
65		7.5 YR 5/6, strong brown quartz sand, very fine grained, well sorted, loose.							
70									
75									
80									
85									
90									
95									
100									
105									
110									
115									
120									121.0 to 123.0': Bentonite Pellets
125									124.87 to 144.49': 2" Sch. 40 Screen, 0.02" Slot (Threaded)
130									W. L. 132.18' (10/8/02)
135									
140									123.0 to 145.0': 8-16 Graded Silica Sand
145			3847						Sch. 40 PVC Cap (Threaded)
150		TD: 145'							

Drilling Method: Rotary (water at 60')

Date Drilled: 8/29/02

Well Size: 2"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3991.74

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-12

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Caliche 7.5 YR 7/3, pink quartz sand and quartzite, very fine grained, very poorly sorted, very indurated.					0.4		
10							0.2		Casing Stickup: 3.01'
15							0.0		
20							0.0		
25			3961				0.1		1.0 to 121.0': Cement-Bentonite Grout
30		Silty Sand 7.5 YR 7/4, pink quartz sand, very fine grained, well sorted, loose.					0.0		
35							0.0		
40							0.0		
45							0.0		0.0 to 124.87': 2" Sch. 40 PVC Riser (Threaded)
50							0.0		
55			3933				0.0		
60		Sand 7.5 YR 5/6, strong brown quartz sand, very fine grained, well sorted, loose.					0.0		
65									
70									
75									
80									
85									
90									
95									
100									
105									
110									
115									
120									121.0 to 123.0': Bentonite Pellets
125									
130									W. L. 129.77' (10/8/02)
135									124.87 to 144.49': 2" Sch. 40 Screen, 0.02" Slot (Threaded)
140									123.0 to 145.0': 8-16 Graded Silica Sand Sch. 40 PVC Cap (Threaded)
145			3845						
150		TD: 145'							

Drilling Method: Rotary (water at 60")

Date Drilled: 8/29/02

Well Size: 2"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3989.62

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-13

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Caliche 7.5 YR 7/3, pink quartz sand and quartzite, very fine grained, very poorly sorted, very indurated.					0.3		
10							0.1		Casing Stickup: 3.13'
15							0.1		
20							0.0		
25									
30							0.2		1.0 to 121.0': Cement-Bentonite Grout
35									
40							0.0		
45									
50			3937				0.0		0.0 to 124.87': 2" Sch. 40 PVC Riser (Threaded)
55									
60		Sand 7.5 YR 5/6, strong brown quartz sand, very fine grained, well sorted, loose.					0.0		
65									
70									
75									
80									
85									
90									
95									
100									
105									
110									
115									
120									121.0 to 123.0': Bentonite Pellets
125									124.87 to 144.49': 2" Sch. 40 Screen, 0.02" Slot (Threaded)
130									W. L. 132.59' (10/8/02)
135									
140									123.0 to 145.0': 8-16 Graded Silica Sand
145			3846						Sch. 40 PVC Cap (Threaded)
150		TD: 145'							

Drilling Method: Rotary (water at 60")

Date Drilled: 8/28/02

Well Size: 2"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3990.60

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-14

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Caliche					0.1		
10		7.5 YR 7/3, pink quartz sand and quartzite, very fine grained, very poorly sorted, very indurated.					0.1		Casing Stickup: 2.97'
15							0.0		
20							0.2		
25							0.1		1.0 to 121.0': Cement-Bentonite Grout
30							0.1		
35			3954				0.1		
40		Silty Sand					0.1		
45		7.5 YR 7/4, pink quartz sand, very fine grained, well sorted, loose.					0.3		0.0 to 124.87': 2" Sch. 40 PVC Riser (Threaded)
50							0.4		
55			3935						
60		Sand							
65		7 YR 5/6, strong brown quartz sand, very fine grained, well sorted, loose.							
70									
75									
80									
85									
90									
95									
100									
105									
110									
115									
120									121.0 to 123.0': Bentonite Pellets
125									124.87 to 144.49': 2" Sch. 40 Screen, 0.02" Slot (Threaded)
130									W. L. 133.31' (10/8/02)
135									
140									123.0 to 145.0': 8-16 Graded Silica Sand
145			3846						Sch. 40 PVC Cap (Threaded)
150		TD: 145'							

Drilling Method: Rotary (water at 60")

Date Drilled: 8/30/02

Well Size: 2"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3991.27

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-15

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Caliche 7.5 YR 7/3, pink quartz sand and quartzite, very fine grained, very poorly sorted, very indurated.					0.4		
10							0.1		Casing Stickup: 3.22'
15							0.3		
20							0.2		
25									
30			3958				0.1		1.0 to 122.0': Cement-Bentonite Grout
35		Silty Sand 7.5 YR 7/4, pink quartz sand, very fine grained, well sorted, loose.					0.3		
40									
45							0.1		0.0 to 125.87': 2" Sch. 40 PVC Riser (Threaded)
50									
55			3934				0.1		
60		Sand 7.5 YR 5/6, strong brown quartz sand, very fine grained, well sorted, loose.							
65									
70									
75									
80									
85									
90									
95									
100									
105									
110									
115									
120									122.0 to 124.0': Bentonite Pellets
125									125.87 to 145.49': 2" Sch. 40 Screen, 0.02" Slot (Threaded)
130									W. L. 133.82' (10/8/02)
135									124.0 to 146.0': 8-16 Graded Silica Sand
140									
145			3846						Sch. 40 PVC Cap (Threaded)
150		TD: 146'							

Drilling Method: Rotary (water at 60")

Date Drilled: 8/30/02

Well Size: 2"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3992.42

Checked by: CKC

Drilled by: Scarborough Drilling

APPENDIX B

APPENDIX B

ANALYTICAL REPORT

Prepared for:

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Texaco/ Buckeye Plant

PO#:

Order#: G0204280

Report Date: 08/25/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0204280
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0204280-01	RW-1	WATER	8/20/02 10:15	8/21/02 8:27	Bottle	Ice
<u>Lab Testing:</u>		Rejected: No	Temp: 4.0 C			
Anions						
Cations						
Total Dissolved Solids (TDS)						
0204280-02	RW-2	WATER	8/20/02 10:20	8/21/02 8:27	Bottle	Ice
<u>Lab Testing:</u>		Rejected: No	Temp: 4.0 C			
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204280
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0204280-01

Sample ID: RW-1

Anions

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Bicarbonate Alkalinity	120	mg/L	1	2.00	310.1	8/21/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	8/21/02	SB
Chloride	230	mg/L	1	5.00	9253	8/23/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	2	310.1	8/21/02	SB
SULFATE, 375.4	73.4	mg/L	1	0.5	375.4	8/21/02	SB

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Calcium	31.1	mg/L	10	0.10	6010B	8/22/02	SM
Magnesium	10.5	mg/L	1	0.001	6010B	8/22/02	SM
Potassium	43	mg/L	10	0.50	6010B	8/22/02	SM
Sodium	87.6	mg/L	10	0.10	6010B	8/22/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Total Dissolved Solids (TDS)	698	mg/L	1	5.0	160.1	8/23/02	SB

Lab ID: 0204280-02

Sample ID: RW-2

Anions

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Bicarbonate Alkalinity	168	mg/L	1	2.00	310.1	8/21/02	SB
Carbonate Alkalinity	40.0	mg/L	1	0.10	310.1	8/21/02	SB
Chloride	301	mg/L	1	5.00	9253	8/23/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	2	310.1	8/21/02	SB
SULFATE, 375.4	101	mg/L	1	0.5	375.4	8/21/02	SB

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Calcium	7.91	mg/L	1	0.010	6010B	8/22/02	SM
Magnesium	12.6	mg/L	1	0.001	6010B	8/22/02	SM
Potassium	266	mg/L	100	5.0	6010B	8/22/02	SM
Sodium	191	mg/L	100	1.0	6010B	8/22/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Total Dissolved Solids (TDS)	893	mg/L	1	5.0	160.1	8/23/02	SB

RL = Reporting Limit N/A = Not Applicable

Page 1 of 2

ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204280
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Approval: Raland K Tuttle 8-27-02

Raland K. Tuttle, Lab Director, QA Officer Date

Celey D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0204280

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0002928-01			<2.00	
Carbonate Alkalinity-mg/L		0002929-01			<0.10	
Chloride-mg/L		0002961-01			<5.00	
Hydroxide Alkalinity-mg/L		0002930-01			<0.10	
SULFATE, 375.4-mg/L		0002932-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0204280-01	120		120	0.0%
Carbonate Alkalinity-mg/L		0204280-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0204280-01	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0204251-01	256		255	0.4%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Chloride-mg/L		0204280-01	230	500	727	99.4%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Chloride-mg/L		0204280-01	230	500	718	97.6%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0002928-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0002929-04		0.05	.0496	99.2%
Chloride-mg/L		0002961-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0002930-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0002932-04		50	49.5	99.9%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0204280

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0002943-02			<0.01		
Magnesium-mg/L		0002943-02			<0.001		
Potassium-mg/L		0002943-02			<0.05		
Sodium-mg/L		0002943-02			<0.01		
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0204220-04	100		99.5		0.5%
Magnesium-mg/L		0204220-04	13.7		13.5		1.5%
Potassium-mg/L		0204220-04	5.48		5.4		1.5%
Sodium-mg/L		0204220-04	78.8		78.7		0.1%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0002943-05		2	2.02	101.%	
Magnesium-mg/L		0002943-05		2	1.91	95.5%	
Potassium-mg/L		0002943-05		2	1.94	97.%	
Sodium-mg/L		0002943-05		2	2	100.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204280

BLANK						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0002963-01			<5.00		
DUPLICATE						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0204305-01	49100		50400		2.6%

[illegible]

ANALYTICAL REPORT

Prepared for:

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Texaco Buckeye Plant

PO#:

Order#: G0204736

Report Date: 10/14/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0204736
Project: 2-0102
Project Name: Texaco Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0204736-01	MW-14	WATER	10/9/02 9:09	10/9/02 16:47	40 mL VOA	Ice, HCl
	<u>Lab Testing:</u>	Rejected: No		Temp: 22 C		
	8021B/5030 BTEX					
0204736-02	MW-4	WATER	10/9/02 9:45	10/9/02 16:47	40 mL VOA	Ice, HCl
	<u>Lab Testing:</u>	Rejected: No		Temp: 22 C		
	8021B/5030 BTEX					
0204736-03	MW-15 (Duplicate)	WATER	10/9/02 10:00	10/9/02 16:47	40 mL VOA	Ice, HCl
	<u>Lab Testing:</u>	Rejected: No		Temp: 22 C		
	8021B/5030 BTEX					
0204736-04	MW-5	WATER	10/9/02 10:20	10/9/02 16:47	40 mL VOA	Ice, HCl
	<u>Lab Testing:</u>	Rejected: No		Temp: 22 C		
	8021B/5030 BTEX					
0204736-05	MW-1	WATER	10/9/02 10:45	10/9/02 16:47	40 mL VOA	Ice, HCl
	<u>Lab Testing:</u>	Rejected: No		Temp: 22 C		
	8021B/5030 BTEX					
0204736-06	MW-9	WATER	10/9/02 16:05	10/9/02 16:47	40 mL VOA	Ice, HCl
	<u>Lab Testing:</u>	Rejected: No		Temp: 22 C		
	8021B/5030 BTEX					
0204736-07	MW-2	WATER	10/9/02 11:20	10/9/02 16:47	40 mL VOA	Ice, HCl
	<u>Lab Testing:</u>	Rejected: No		Temp: 22 C		
	8021B/5030 BTEX					
0204736-08	MW-8	WATER	10/9/02 11:38	10/9/02 16:47	40 mL VOA	Ice, HCl
	<u>Lab Testing:</u>	Rejected: No		Temp: 22 C		
	8021B/5030 BTEX					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0204736
Project: 2-0102
Project Name: Texaco Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0204736-09	MW-3	WATER	10/9/02 12:00	10/9/02 16:47	40 mL VOA	Ice, HCl
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 22 C		
0204736-10	MW-6	WATER	10/9/02 12:32	10/9/02 16:47	40 mL VOA	Ice, HCl
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 22 C		
0204736-11	MW-7	WATER	10/9/02 13:25	10/9/02 16:47	40 mL VOA	Ice, HCl
	<u>Lab Testing:</u> 8021B/5030 BTEX	Rejected: No		Temp: 22 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204736
Project: 2-0102
Project Name: Texaco Buckeye Plant
Location: None Given

Lab ID: 0204736-01
Sample ID: MW-14

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003412-02		10/10/02 21:18	1	10	CK	8021B

Parameter	Result mg/L	RL
Benzene	3.63	0.010
Ethylbenzene	0.098	0.010
Toluene	0.014	0.010
p/m-Xylene	0.169	0.010
o-Xylene	0.018	0.010

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	102%	80	120
Bromofluorobenzene	112%	80	120

Lab ID: 0204736-02
Sample ID: MW-4

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003412-02		10/11/02 10:49	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.705	0.005
Ethylbenzene	0.005	0.005
Toluene	<0.005	0.005
p/m-Xylene	0.011	0.005
o-Xylene	<0.005	0.005

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	105%	80	120
Bromofluorobenzene	109%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 6

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204736
Project: 2-0102
Project Name: Texaco Buckeye Plant
Location: None Given

Lab ID: 0204736-03
Sample ID: MW-15 (Duplicate)

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003412-02		10/11/02 11:09	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	82%	80	120
Bromofluorobenzene	94%	80	120

Lab ID: 0204736-04
Sample ID: MW-5

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003412-02		10/11/02 11:29	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.489	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	99%	80	120
Bromofluorobenzene	106%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204736
Project: 2-0102
Project Name: Texaco Buckeye Plant
Location: None Given

Lab ID: 0204736-05
Sample ID: MW-1

8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0003412-02		10/11/02 14:44	1	10	CK	8021B

Parameter	Result mg/L	RL
Benzene	3.56	0.010
Ethylbenzene	<0.010	0.010
Toluene	<0.010	0.010
p/m-Xylene	<0.010	0.010
o-Xylene	<0.010	0.010

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	103%	80	120
Bromofluorobenzene	97%	80	120

Lab ID: 0204736-06
Sample ID: MW-9

8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0003412-02		10/11/02 12:09	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.004	0.001
Ethylbenzene	<0.001	0.001
Toluene	0.001	0.001
p/m-Xylene	0.023	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	109%	80	120
Bromofluorobenzene	103%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204736
Project: 2-0102
Project Name: Texaco Buckeye Plant
Location: None Given

Lab ID: 0204736-07
Sample ID: MW-2

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003412-02		10/11/02 12:29	1	10	CK	8021B

Parameter	Result mg/L	RL
Benzene	1.73	0.010
Ethylbenzene	0.017	0.010
Toluene	<0.010	0.010
p/m-Xylene	0.023	0.010
o-Xylene	<0.010	0.010

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	102%	80	120
Bromofluorobenzene	103%	80	120

Lab ID: 0204736-08
Sample ID: MW-8

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003412-02		10/11/02 12:49	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.579	0.005
Ethylbenzene	0.031	0.005
Toluene	<0.005	0.005
p/m-Xylene	0.018	0.005
o-Xylene	<0.005	0.005

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	87%	80	120
Bromofluorobenzene	88%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204736
Project: 2-0102
Project Name: Texaco Buckeye Plant
Location: None Given

Lab ID: 0204736-09
Sample ID: MW-3

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003412-02		10/11/02 13:10	1	10	CK	8021B

Parameter	Result mg/L	RL
Benzene	4.80	0.010
Ethylbenzene	0.088	0.010
Toluene	1.24	0.010
p/m-Xylene	0.125	0.010
o-Xylene	0.053	0.010

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	103%	80	120
Bromofluorobenzene	88%	80	120

Lab ID: 0204736-10
Sample ID: MW-6

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003412-02		10/11/02 13:30	1	10	CK	8021B

Parameter	Result mg/L	RL
Benzene	5.45	0.010
Ethylbenzene	<0.010	0.010
Toluene	<0.010	0.010
p/m-Xylene	0.032	0.010
o-Xylene	<0.010	0.010

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	93%	80	120
Bromofluorobenzene	93%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204736
Project: 2-0102
Project Name: Texaco Buckeye Plant
Location: None Given

Lab ID: 0204736-11
Sample ID: MW-7

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003412-02		10/11/02 13:50	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.086	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	89%	80	120
Bromofluorobenzene	94%	80	120

Approval: Jeanne McMurrey 10-14-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204736

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0003412-02			<0.001		
Ethylbenzene-mg/L		0003412-02			<0.001		
Toluene-mg/L		0003412-02			<0.001		
p/m-Xylene-mg/L		0003412-02			<0.001		
o-Xylene-mg/L		0003412-02			<0.001		
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0204727-01	0	0.1	0.096	96.%	
Ethylbenzene-mg/L		0204727-01	0	0.1	0.100	100.%	
Toluene-mg/L		0204727-01	0	0.1	0.100	100.%	
p/m-Xylene-mg/L		0204727-01	0	0.2	0.212	106.%	
o-Xylene-mg/L		0204727-01	0	0.1	0.102	102.%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0204727-01	0	0.1	0.093	93.%	3.2%
Ethylbenzene-mg/L		0204727-01	0	0.1	0.098	98.%	2.%
Toluene-mg/L		0204727-01	0	0.1	0.098	98.%	2.%
p/m-Xylene-mg/L		0204727-01	0	0.2	0.208	104.%	1.9%
o-Xylene-mg/L		0204727-01	0	0.1	0.100	100.%	2.%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0003412-05		0.1	0.092	92.%	
Ethylbenzene-mg/L		0003412-05		0.1	0.096	96.%	
Toluene-mg/L		0003412-05		0.1	0.097	97.%	
p/m-Xylene-mg/L		0003412-05		0.2	0.204	102.%	
o-Xylene-mg/L		0003412-05		0.1	0.097	97.%	

ANALYTICAL REPORT

Prepared for:

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Texaco Buckeye

PO#:

Order#: G0204737

Report Date: 10/16/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0204737
Project: 2-0102
Project Name: Texaco Buckeye
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0204737-01	MW-10	WATER	10/9/02 10:52	10/9/02 16:47	40 mL VOA	C HCL to <pH2 / I
<u>Lab Testing:</u> 8021B/5030 BTEX		Rejected: No	Temp: 22 C			
0204737-02	MW-11	WATER	10/9/02 11:33	10/9/02 16:47	40 mL VOA	C HCL to <pH2 / I
<u>Lab Testing:</u> 8021B/5030 BTEX		Rejected: No	Temp: 22 C			
0204737-03	MW-12	WATER	10/9/02 12:00	10/9/02 16:47	40 mL VOA	C HCL to <pH2 / I
<u>Lab Testing:</u> 8021B/5030 BTEX		Rejected: No	Temp: 22 C			
0204737-04	MW-13	WATER	10/9/02 12:30	10/9/02 16:47	40 mL VOA	C HCL to <pH2 / I
<u>Lab Testing:</u> 8021B/5030 BTEX		Rejected: No	Temp: 22 C			

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204737
Project: 2-0102
Project Name: Texaco Buckeye
Location: None Given

Lab ID: 0204737-01
Sample ID: MW-10

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0003412-02		10/11/02 14:10	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.029	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	102%	80	120
Bromofluorobenzene	98%	80	120

Lab ID: 0204737-02
Sample ID: MW-11

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0003450-02		10/15/02 18:16	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	84%	80	120
Bromofluorobenzene	88%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204737
Project: 2-0102
Project Name: Texaco Buckeye
Location: None Given

Lab ID: 0204737-03
Sample ID: MW-12

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003450-02		10/15/02 18:37	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	82%	80	120
Bromofluorobenzene	84%	80	120

Lab ID: 0204737-04
Sample ID: MW-13

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003450-02		10/15/02 18:57	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.065	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	90%	80	120
Bromofluorobenzene	89%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 2 of 3

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204737
Project: 2-0102
Project Name: Texaco Buckeye
Location: None Given

Approval: Raland K Tuttle 10-16-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204737

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0003412-02			<0.001		
Benzene-mg/L		0003450-02			<0.001		
Ethylbenzene-mg/L		0003412-02			<0.001		
Ethylbenzene-mg/L		0003450-02			<0.001		
Toluene-mg/L		0003412-02			<0.001		
Toluene-mg/L		0003450-02			<0.001		
p/m-Xylene-mg/L		0003412-02			<0.001		
p/m-Xylene-mg/L		0003450-02			<0.001		
o-Xylene-mg/L		0003412-02			<0.001		
o-Xylene-mg/L		0003450-02			<0.001		
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0204727-01	0	0.1	0.096	96.%	
Benzene-mg/L		0204761-10	0	0.1	0.097	97.%	
Ethylbenzene-mg/L		0204727-01	0	0.1	0.100	100.%	
Ethylbenzene-mg/L		0204761-10	0	0.1	0.100	100.%	
Toluene-mg/L		0204727-01	0	0.1	0.100	100.%	
Toluene-mg/L		0204761-10	0	0.1	0.101	101.%	
p/m-Xylene-mg/L		0204727-01	0	0.2	0.212	106.%	
p/m-Xylene-mg/L		0204761-10	0	0.2	0.210	105.%	
o-Xylene-mg/L		0204727-01	0	0.1	0.102	102.%	
o-Xylene-mg/L		0204761-10	0	0.1	0.101	101.%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0204727-01	0.096	0.1	0.093	93.%	3.2%
Benzene-mg/L		0204761-10	0	0.1	0.092	92.%	5.3%
Ethylbenzene-mg/L		0204727-01	0.1	0.1	0.098	98.%	2.%
Ethylbenzene-mg/L		0204761-10	0	0.1	0.094	94.%	6.2%
Toluene-mg/L		0204727-01	0.1	0.1	0.098	98.%	2.%
Toluene-mg/L		0204761-10	0	0.1	0.095	95.%	6.1%
p/m-Xylene-mg/L		0204727-01	0.212	0.2	0.208	104.%	1.9%
p/m-Xylene-mg/L		0204761-10	0	0.2	0.198	99.%	5.9%
o-Xylene-mg/L		0204727-01	0.102	0.1	0.100	100.%	2.%
o-Xylene-mg/L		0204761-10	0	0.1	0.095	95.%	6.1%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0003412-05		0.1	0.092	92.%	
Benzene-mg/L		0003450-05		0.1	0.094	94.%	
Ethylbenzene-mg/L		0003412-05		0.1	0.096	96.%	
Ethylbenzene-mg/L		0003450-05		0.1	0.096	96.%	
Toluene-mg/L		0003412-05		0.1	0.097	97.%	

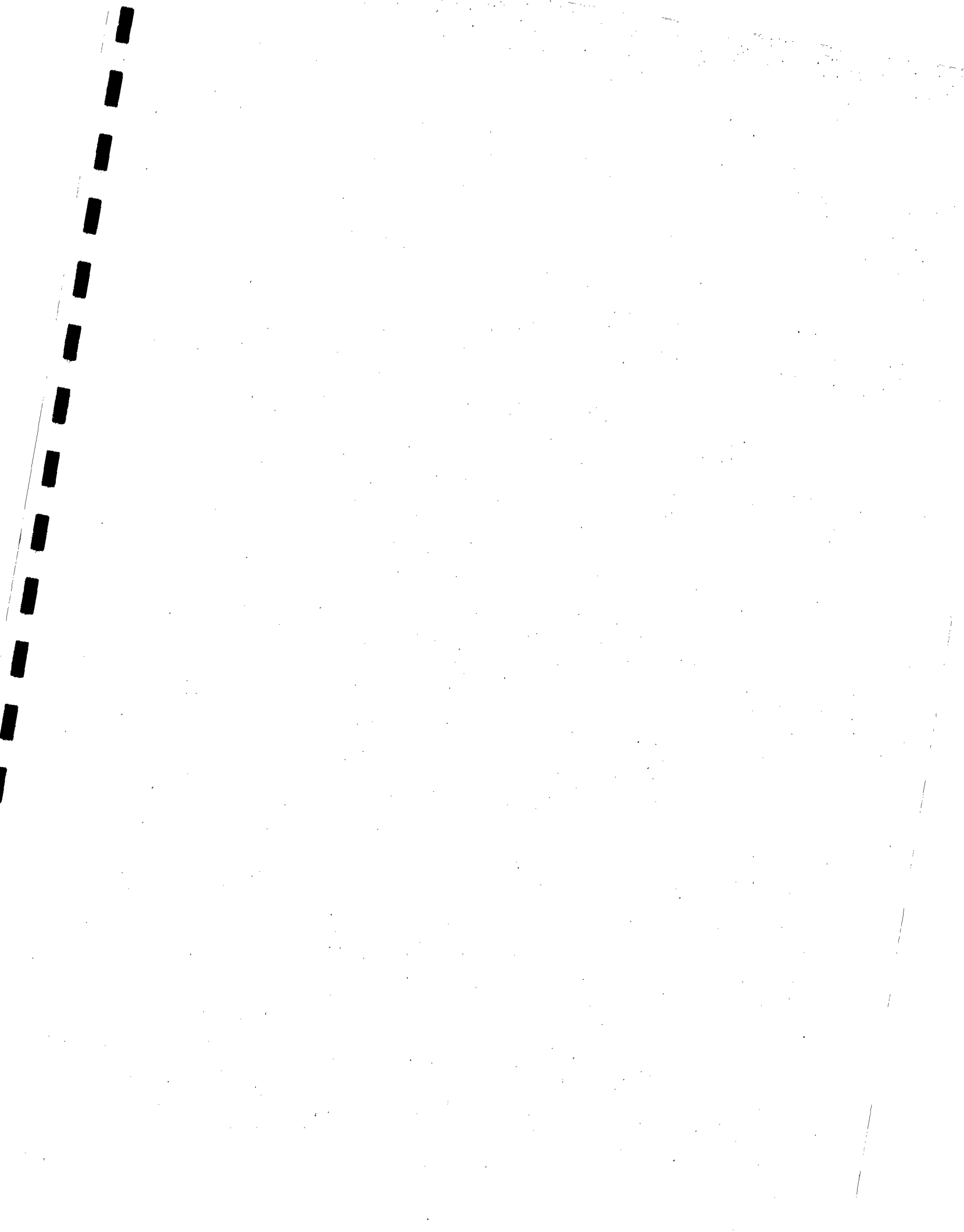
ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204737

<i>SRM</i>	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Toluene-mg/L		0003450-05		0.1	0.098	98.0%	
p/m-Xylene-mg/L		0003412-05		0.2	0.204	102.0%	
p/m-Xylene-mg/L		0003450-05		0.2	0.202	101.0%	
o-Xylen-mg/L		0003412-05		0.1	0.097	97.0%	
o-Xylen-mg/L		0003450-05		0.1	0.097	97.0%	



August 15, 2002

VIA FACSIMILE: (505) 476-3462

Mr. Wayne Price
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RECEIVED
AUG 27 2002
Environmental Bureau
Oil Conservation Division

**Re: Subsurface Investigation Report, Buckeye Compressor Station (GW-029),
Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East,
Lea County, New Mexico**

Dear Mr. Price:

Texaco Exploration and Production Inc. (Texaco), former operator of the Buckeye Compressor Station (Site), has retained Larson and Associates, Inc. (LA) to investigate the source and extent of dissolved benzene previously that was reported in a groundwater sample from an inactive well that previously was used for non-potable use (i.e., fire fighting, cooling, lavatories, etc.) at the Site. The well is no longer used. A groundwater sample was collected from the well on April 4, 2001, as a requirement for renewal the groundwater discharge plan (GW-029) issued by the New Mexico Oil Conservation Commission (NMOCD). Benzene was reported in the groundwater at 0.0558 milligrams per liter (mg/L), and exceeded the New Mexico Water Quality Commission (NMWQCC) human health standard of 0.01 mg/L. Texaco was the former operator of the Site, and accepted responsibility for the investigation. Figure 1 presents a Site location and topographic map. Figure 2 presents a detailed drawing for the Site.

Current Investigation

The current investigation was performed from June 4, 2002, to June 14, 2002, in accordance with a work plan dated April 12, 2002, and approved by the NMOCD. Soil samples were collected from seventeen (17) exploratory borings installed at the Site between June 4 and June 7, 2002. Soil samples were also collected during installation of eight (8) monitoring wells between June 10 and June 14, 2002. Scarborough Drilling, Inc. used an air rotary drilling rig to drill the borings. Samples from the exploratory borings were collected at ground surface, and approximately every five (5) feet below ground surface (BGS) to about thirty-one (31) feet below ground surface (BGS) using a split-spoon sampler. Soil samples were collected during monitoring well drilling were obtained at ground surface, approximately every five (5) feet to approximately 31 feet BGS, and approximately every ten (10) feet thereafter, until water had to be used to effectively drill the remaining depth from approximately 60 to 140 feet BGS. The split-spoon sampler was thoroughly washed between sample events, and the drilling rig and associated equipment (i.e., bit, rods, etc.) were washed between locations using a high-

pressure hot water washer. Drill cuttings were placed on the ground adjacent to the borings and monitoring wells. The soil samples were placed in clean glass sample jars, labeled, chilled in an ice chest, and delivered under chain-of-custody control to Environmental Lab of Texas, Inc., located in Odessa, Texas. A portion of each sample was also placed in a clean glass sample jar for headspace analysis. The headspace jars were filled approximately $\frac{3}{4}$ 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 NMOCD allows a PID measurement of less than 100 ppm to substitute a laboratory analysis for benzene and total BTEX. However, the PID measurement cannot be used as a substitute for TPH analysis by a laboratory. The following soil samples exhibited PID readings above 100 ppm:

<u>Boring</u>	<u>Depth</u>	<u>PID</u>
BH-2	5 - 6	947.6
BH-3	5 - 6	123
BH-4	10 - 11	218.6
BH-7	5 - 6	172.2
BH-8	5 - 6	1620
BH-9	5 - 6	>1999
BH-9	30 - 31	>1999
BH-10	0 - 2	1431
BH-10	20 - 21	>1999
BH-10	30 - 31	>1999
BH-11	5 - 6	183.6
BH-12	5 - 6	>1999
BH-12	15 - 16	>1999
BH-12	30 - 31	143.8
BH-14	0 - 6	322.7
BH-15	0 - 6	>1999
BH-15	15 - 16	>1999
BH-15	30 - 31	121.4
BH-16	0 - 1	341.9
BH-17	0 - 1	>1999
BH-17	15 - 16	>1999
BH-17	30 - 31	140.6
MW-1	5 - 6	1359
MW-1	80 - 82	551.9
MW-2	30 - 31	>1999
MW-2	80 - 81	1451

<u>Boring</u>	<u>Depth</u>	<u>PID</u>
MW-3	5 – 6	>1999
MW-3	60 – 61	>1999
MW-4	20 – 21	107.7
MW-5	5 – 6	1751
MW-7	10 – 11	256.3

The sample from each boring that exhibited the highest PID reading (over 100 ppm) was analyzed for BTEX (sum of benzene, toluene, ethylbenzene, and xylene) using by EPA method SW-846-8021B, total petroleum hydrocarbon (TPH) by EPA method SW-846-8015 for gasoline range organics (GRO) and diesel range organics (DRO), and RCRA metals (8) by EPA method SW-846-3050/6010B. The deepest sample collected from each boring was also analyzed for TPH, RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver), and BTEX if PID readings were above 100 ppm. All samples were analyzed for chloride using EPA method SW-846-9253. The PID readings and laboratory analysis of BTEX, TPH and chlorides are presented in Table 1. Table 2 presents a summary of the total metals analysis of soil samples. Appendix A presents the laboratory reports.

The monitoring wells were constructed with threaded 2-inch schedule 40 PVC well screen and riser. The well screen, approximately 20 feet in length, was placed above and below the groundwater level observed in monitoring wells installed approximately 500 feet southeast (down gradient) of the Site. Graded silica sand was placed around the well screen to approximately 3 feet above the screen. Approximately 3 feet of bentonite chips was placed above the sand, and hydrated with potable water. The remainder of the annulus was filled with cement and bentonite grout to about 1-foot BGS. Each well is secured with a locking above-grade cover, anchored in a concrete pad measuring approximately 3 x 3 feet. An electric submersible pump was used to develop the wells until groundwater was visibly clear of sediment. A professional land surveyor (Piper Surveying Company) registered in the State New Mexico surveyed the new wells and water well for top-of-casing and ground elevation. Table 3 presents a summary of monitoring well drilling and completion details. Depth-to-groundwater was measured in the new wells, water well, and existing monitoring wells located southeast of the Site on July 29, 2002, and are presented on Table 3. Appendix B presents the monitoring well completion records.

Groundwater samples were collected from the wells on June 19 and 20, 2002, and were analyzed for BTEX, metals (RCRA 8), anions, cations and total dissolved solids (TDS). The metals samples were filtered in the field prior to preservation. Tables 4, 5 and 6 present summaries of the BTEX, dissolved metals and general chemistry analyses of groundwater samples, respectively. Appendix A presents the laboratory reports.

Investigation Results

The elevation of the groundwater surface ranged from 3859.07 feet above mean sea level (AMSL) at well MW-5 (up gradient) to 3855.13 feet AMSL at recovery well RW-3 located southeast of the Site. Groundwater flow was generally from northwest to southeast at a gradient of approximately 0.002 feet per foot. Figure 3 presents a groundwater potentiometric surface map for July 29, 2002.

The NMOCD has established remediation action levels (RRAL) for benzene, total BTEX (sum of benzene, toluene, ethylbenzene and xylenes) and total petroleum hydrocarbons (TPH) in soil ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"). Remediation levels for benzene, total BTEX and TPH were calculated using the following NMOCD criteria:

Criteria	Result	Ranking Score
Depth-to-Groundwater	50 to 99 Feet	10
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1000 Feet	0
		Total: 10

The following RRAL have been assigned based on NMOCD criteria:

Benzene	10 mg/kg
Total BTEX	50 mg/kg
TPH	1000 mg/kg

No soil samples exceeded the RRAL for benzene (10 mg/kg) and total BTEX (50 mg/kg). The RRAL for TPH (1000 mg/kg) was exceeded in the samples from the following borings:

<u>Boring</u>	<u>Depth</u>	<u>TPH</u>
BH-10	0 - 2	2,107.0
BH-13	0 - 2	5,901.6

Boring BH-10 was installed west of the skimmer pit, and boring BH-13 was installed north of the compressor building. Soil samples from boring BH-17, located near the drain sump on the north side of the compressor building reported detectable levels of TPH that extended below 30 feet BGS, but were below the RRAL. Chloride was reported 3690 mg/kg (0 to 2 feet BGS) and 4960 mg/kg (60 to 61 feet BGS) in samples from boring MW-4, and was elevated above background levels reported in samples from boring BH-1 (<10 mg/Kg). The NMOCD does not have an RRAL for chloride. The elevated chloride readings do not appear to have impacted groundwater since the chloride

level reported in the groundwater sample from well MW-4 was 142 mg/L.

Soil samples from borings BH-1 through BH-17 were analyzed for RCRA metals, and the results were compared to soil screening levels (SSL) established by the New Mexico Environment Department (NMED) for residential and industrial settings. The SSL for arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver) are as follows:

<u>Parameter</u>	<u>Residential (mg/kg)</u>	<u>Industrial (mg/kg)</u>
Arsenic	3.9	17
Barium	5200	52000
Cadmium	70	190
Chromium (VI)	230	660
Lead	400	1000
Mercury	23	69
Selenium	380	1200
Silver	380	1200

Arsenic was the only parameter that exceeded a SSL. The SSL for arsenic (17 mg/kg), and was exceeded in the sample from boring BH-17, 0 to 1 foot (22.3 mg/kg). The background concentration was reported at 3.8 mg/kg at location BH-1. No other samples exceeded the SSL for the metal compounds.

The groundwater sample analyses were compared to the human health and domestic water quality standards established by the NMWQCC. Dissolved benzene exceeded the NMWQCC human health standard of 0.01 mg/L in the following samples:

<u>Well</u>	<u>Benzene (mg/L)</u>
MW-1	1.74
MW-2	1.15
MW-3	1.05
MW-6	0.444
MW-8	1.23

On July 29, 2002, groundwater samples were collected from monitoring wells TMW-11, TMW-13 and TMW-14, located southeast of the Site, to determine the approximate down gradient extent of the dissolved benzene plume. No BTEX compounds were detected in the samples above the test method detection limits (<0.001 mg/L). Figure 4 presents an isopleth for benzene that shows migrations of the plume off the Site boundary. The limits of dissolved benzene in groundwater up gradient (northwest) or cross gradient (southwest) of the Site were not determined during the investigation. The results of BTEX analysis of soil samples from the borings did not reveal a specific source for the dissolved benzene. The benzene may be attributed to possible piping leaks in the former

Mr. Wayne Price
August 15, 2002
Page 6

gas processing area. Toluene, ethylbenzene and xylene were below the human health standards established by the NMWQCC.

Dissolved arsenic, barium, selenium and silver were the only metal parameters reported in the groundwater samples above the test method detection limits. Arsenic (0.009 mg/L), selenium (0.006 mg/L) and silver (0.002 mg/L) were observed in the samples from well MW-3, and were below the NMWQCC human health standards of 0.1 mg/L (arsenic) and 0.05 mg/L (selenium and silver). Dissolved barium ranged from 0.131 mg/L (MW-1) to 0.650 mg/L, and was below the NMWQCC standard of 1.0 mg/L. No samples exceeded the NMWQCC domestic water quality standards for chloride (250 mg/L), sulfate (600 mg/L) and TDS (1000 mg/L).

Proposed Additional Investigations

ChevronTexaco proposes to install additional monitoring wells to delineate the limits of the dissolved benzene plume northwest, southwest, south and southeast of the Site. Approximately seven (7) wells will be installed at approximate locations shown on Figure 5. The well will be installed in accordance with procedures described in the work plan dated April 12, 2002. Soil samples will be collected during drilling for headspace analysis, and possible laboratory analysis according to NMOCD guidelines. Groundwater samples will be collected from the new and existing wells for BTEX analysis. A final report will be submitted to the NMOCD that includes boring and well completion logs, laboratory reports, groundwater flow map, isopleth map for benzene, and proposed remediation plan.

Please call Mr. Rodney Bailey at (915) 687-7100 or myself at (915) 687-0901 if you have questions.

Sincerely,

Larson & Associates, Inc.



Cindy K. Crain
Geologist

Encl.

cc: Mr. Rodney G. Bailey - ChevronTexaco
Mr. Cal Wrangham - Dynegey
Mr. Paul Sheeley - NMOCD, Hobbs District

TABLES

TABLES

Table 1:

Summary of BTEX, TPH and Chloride Analysis of Soil Samples
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Borehole Number	Sample Date	Sample Depth (feet BGS)	PID (ppm)	Benzene mg/kg	Total BTEX mg/kg	DRO >C12-C35 mg/kg	GRO C6-C12 mg/kg	TPH (C6-C35) mg/kg	Chloride mg/kg
BH-1	6/4/2002	5-6	19.9	<0.025	<0.125	<10.0	<10.0	<20.0	<10.0
BH-1	6/4/2002	30-31	14.4	<0.025	<0.125	<10.0	<10.0	<20.0	<10.0
BH-2	6/4/2002	5-6	947.6	<0.025	<0.125	<10.0	<10.0	<20.0	47.3
BH-2	6/4/2002	30-31	36.8	<0.025	<0.125	29.2	<10.0	<39.2	22.2
BH-3	6/5/2002	5-6	123	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-3	6/5/2002	30-31	36.8	---	---	60.6	34.7	95.3	35.4
BH-4	6/5/2002	10-11	218.6	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-4	6/5/2002	30-31	52.4	---	---	17.2	<10.0	<27.2	17.7
BH-5	6/5/2002	20-21	22.4	---	---	<10.0	<10.0	<20.0	17.7
BH-5	6/5/2002	30-31	16.8	---	---	<10.0	<10.0	<20.0	17.7
BH-6	6/5/2002	0-7"	41.5	---	---	27.0	<10.0	<37.0	17.7
BH-6	6/5/2002	30-31	11.4	---	---	<10.0	<10.0	<20.0	17.7
BH-7	6/5/2002	5-6	172.2	<0.025	<0.125	78.6	<10.0	<88.6	53.2
BH-7	6/5/2002	30-31	32.5	---	---	20.9	<10.0	<30.9	50.6
BH-8	6/6/2002	5-6	1620	<0.025	<0.125	15.1	<10.0	<25.1	97.5
BH-8	6/6/2002	30-31	58.5	<0.025	<0.125	<10.0	<10.0	<20.0	26.6
BH-9	6/6/2002	5-6	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	97.5
BH-9	6/6/2002	30-31	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	26.6
BH-10	6/6/2002	0-2	1431	<0.025	<0.125	1,750.0	357.0	2,107.0	33.2
BH-10	6/6/2002	20-21	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	33.2
BH-10	6/6/2002	30-31	>1999	<0.025	<0.125	30.1	<10.0	<40.1	29.5
BH-11	6/7/2002	5-6	183.6	<0.025	<0.125	<10.0	<10.0	<20.0	44.3
BH-11	6/7/2002	30-31	55.8	<0.025	<0.125	<10.0	<10.0	<20.0	44.3

Borehole Number	Sample Date	Sample Depth (feet) BGS	PID (ppm)	Benzene mg/kg	Total BTEX mg/kg	DRO >C12-C35 mg/kg	GRO C6-C12 mg/kg	TPH (C6-C35) mg/kg	Chloride mg/kg
BH-12	6/7/2002	5-6	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-12	6/7/2002	15-16	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-12	6/7/2002	30-31	143.8	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-13	6/7/2002	0-2	26.8	---	---	5,810.0	91.6	5,901.6	222.0
BH-13	6/7/2002	30-31	11.2	---	---	14.4	<10.0	<24.4	17.7
BH-14	6/7/2002	0-6"	322.7	<0.025	<0.125	13.4	<10.0	<23.4	17.7
BH-14	6/7/2002	15-16	64.8	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-14	6/7/2002	30-31	30.8	---	---	<10.0	<10.0	<20.0	17.7
BH-15	6/7/2002	0-6"	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-15	6/7/2002	15-16	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-15	6/7/2002	30-31	121.4	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
BH-16	6/6/2002	0-1	341.9	<0.025	<0.125	<10.0	<10.0	<20.0	19.7
BH-16	6/6/2002	30-31	7.8	---	---	<10.0	<10.0	<20.0	19.7
BH-17	6/7/2002	0-1	>1999	0.063	<0.401	627.0	16.7	643.7	19.7
BH-17	6/7/2002	15-16	>1999	<0.025	<0.143	375.0	24.2	399.2	8.9
BH-17	6/7/2002	30-31	140.6	<0.025	<0.125	318.0	27.8	345.8	17.7
MW-1	6/10/2002	5-6	1359	<0.025	<0.125	19.9	<10.0	<29.9	17.7
MW-1	6/11/2002	80-82	551.9	<0.025	<0.125	<10.0	<10.0	<20.0	17.7
MW-2	6/11/2002	30-31	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	12.7
MW-2	6/11/2002	80-81	1451	<0.025	<0.126	<10.0	<10.0	<20.0	17.7
MW-3	6/12/2002	5-6	>1999	<0.025	<0.125	<10.0	<10.0	<20.0	53.2
MW-3	6/12/2002	60-61	>1999	---	---	40.9	48.3	89.2	17.7
MW-4	6/13/2002	20-21	107.7	<0.025	<0.125	<10.0	<10.0	<20.0	3690.0
MW-4	6/13/2002	60-61	22	---	---	<10.0	<10.0	<20.0	4960.0
MW-5	6/14/2002	5-6	1751	<0.025	<0.125	<10.0	<10.0	<20.0	35.4
MW-5	6/14/2002	60-61	13.7	---	---	<10.0	<10.0	<20.0	<10.0

Borehole Number	Sample Date	Sample Depth (feet BGS)	PID (ppm)	Benzene mg/kg	Total BTEX mg/kg	DRO >C12-C35 mg/kg	GRO C6-C12 mg/kg	TPH (C6-C35) mg/kg	Chloride mg/kg
MW-6	6/12/2002	5-6	24.3	---	---	<10.0	<10.0	<20.0	160.0
MW-6	6/12/2002	60-61	7.6	---	---	<10.0	<10.0	<20.0	17.7
MW-7	6/13/2002	10-11	256.3	<0.025	<0.125	<10.0	<10.0	<20.0	<10.0
MW-7	6/13/2002	60-61	21.7	---	---	<10.0	<10.0	<20.0	17.7
MW-8	6/12/2002	5-6	24.8	---	---	<10.0	<10.0	<10.0	53.2
MW-8	6/12/2002	60-61	32.4	---	---	<10.0	<10.0	<10.0	17.7

Notes:

1. BGS: Depth in feet below ground surface
2. mg/kg: Concentration in milligrams per kilogram
3. ppm: Concentration in parts per million
4. <: Concentration below test method detection limit
5. ---: No data available

All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas

Table 2:

Summary of Total Metals Analysis of Soil Samples
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Borehole Number	Sample Date	Sample Depth (feet BGS)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Mercury (mg/kg)
BH-1	6/4/2002	5-6	3.8	302.0	0.144	1.56	<0.550	<0.20	<0.10	<0.100
BH-1	6/4/2002	30-31	2.5	111.0	0.177	4.07	<0.550	<0.20	<0.10	<0.080
BH-2	6/4/2002	30-31	3.63	30.2	0.226	5.00	<0.550	<0.20	<0.10	<0.080
BH-3	6/5/2002	30-31	1.95	31.4	0.322	5.91	<0.550	<0.20	<0.10	<0.080
BH-4	6/5/2002	30-31	3.79	64.5	0.135	4.61	<0.550	<0.20	<0.10	<0.080
BH-5	6/5/2002	20-21	5.88	88.4	0.151	3.22	<0.550	<0.20	<0.10	<0.080
BH-6	6/5/2002	0-7"	5.71	126.0	1.560	179.00	2.9	<0.20	<0.10	<0.10
BH-7	6/5/2002	5-6	3.51	168.0	0.360	5.50	0.7	<0.200	0.785	<0.100
BH-8	6/6/2002	5-6	2.78	81.4	0.448	5.48	<0.550	<0.200	0.496	<0.040
BH-9	6/6/2002	5-6	1.55	65.1	0.340	4.34	<0.550	<0.200	0.155	<0.040
BH-10	6/6/2002	0-2	3.4	124.0	0.844	16.70	3.8	3.7	<0.100	<0.100
BH-11	6/7/2002	5-6	1.51	78.3	0.394	4.12	<0.550	0.9	<0.100	<0.040
BH-12	6/7/2002	5-6	4.15	1918.0	0.118	1.58	<0.550	<0.200	<0.100	<0.100
BH-13	6/7/2002	0-2	16.1	254.0	0.435	4.63	2.9	<0.200	<0.100	<0.100
BH-14	6/7/2002	0-6"	11.1	269.0	0.690	8.57	7.2	<0.200	<0.100	<0.100
BH-15	6/7/2002	0-6"	5.14	288.0	0.421	2.50	1.1	<0.200	<0.100	<0.100
BH-16	6/6/2002	0-1	3.41	93.3	1.050	14.00	3.0	<0.200	<0.100	<0.100
BH-17	6/7/2002	0-1	22.3	341.000	0.280	2.94	5.9	<0.200	<0.100	<0.100

Notes:

1. BGS: All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas
2. mg/kg: Depth in feet below ground surface
3. <: Concentration in milligrams per kilogram
4. ---: Concentration below test method detection limit
No data available

Table 3:

Summary of Monitoring Well Drilling and Completion Details
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Well Number	Date Drilled	Ground Elevation (Feet AMSL)	Top of Casing Elevation (Feet AMSL)	Drilled Depth (Feet BGS)	Well Depth (Feet TOC)	Well Diameter (Inches)	Screen Interval (Feet BGS)
MW-1	6/10/2002	3988.48	3990.85	140.0	142.09	2	122.47-142.09
MW-2	6/11/2002	3988.71	3991.08	140.0	142.37	2	123.27-142.89
MW-3	6/12/2002	3989.65	3991.75	140.0	142.34	2	123.72-143.34
MW-4	6/13/2002	3989.25	3991.57	140.0	142.32	2	122.47-142.09
MW-5	6/14/2002	3989.68	3993.12	143.0	146.44	2	125.97-145.59
MW-6	6/12/2002	3989.38	3991.94	140.0	142.56	2	122.37-141.99
MW-7	6/13/2002	3990.28	3992.89	140.0	142.61	2	122.17-141.79
MW-8	6/12/2002	3988.83	3991.27	140.0	143.19	2	123.57-143.19
WW-1	unknown	3989.37	3990.00	unknown	unknown	4	unknown

Notes:

1. BGS: Wells MW-1 through MW-8 installed by Scarborough Drilling, Inc., Lamesa, Texas
Depth in feet below ground surface
2. AMSL: Elevation in feet above mean sea level
3. TOC: Depth in feet below top-of-casing

Table 4: Summary of BTEX Analysis of Groundwater Samples
Texaco Exploration and Production, Inc., Buckeye Compressor Station
Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
Lea County, New Mexico

Well Number	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	p/m Xylene (mg/L)	o-Xylene (mg/L)	Total BTEX (mg/L)
MW-1	6/19/2002	1.74	0.024	<0.010	<0.010	<0.010	<1.794
MW-2	6/19/2002	1.15	<0.005	0.009	0.008	<0.005	<1.177
MW-3	6/20/2002	1.05	0.739	0.345	0.300	0.116	2.6
MW-4	6/20/2002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-5	6/20/2002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
MW-6	6/20/2002	0.444	<0.001	<0.001	<0.001	<0.001	<0.001
MW-7	6/20/2002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-8	6/20/2002	1.23	<0.005	0.046	0.021	<0.005	<1.307
Duplicate	6/20/2002	1.90	<0.005	0.075	0.033	<0.005	<2.018

Notes: All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas

1. mg/L: Concentration in milligrams per liter
2. <: Concentration below test method detection limit
3. ---: No data available
- 4 Duplicate sample collected from MW-8

Table 5:

Summary of Dissolved Metals Analysis of Groundwater Samples
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Well Number	Sample Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury, Dissolved (mg/L)
MW-1	6/19/2002	<0.008	0.131	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-2	6/19/2002	<0.008	0.254	<0.001	<0.002	<0.011	<0.004	0.002	<0.002
MW-3	6/20/2002	0.009	0.194	<0.001	<0.002	<0.011	0.006	<0.002	<0.002
MW-4	6/20/2002	<0.008	0.219	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-5	6/20/2002	<0.008	0.209	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-6	6/20/2002	<0.008	0.182	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-7	6/20/2002	<0.008	0.140	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002
MW-8	6/20/2002	<0.008	0.650	<0.001	<0.002	<0.011	<0.004	<0.002	<0.002

Notes:

All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas

1. mg/L:

Concentration in milligrams per liter

2. <: Concentration below test method detection limit

3. ---: No data available

Table 6:

Summary of Anions, Cations and TDS Analysis of Groundwater Samples
 Texaco Exploration and Production, Inc., Buckeye Compressor Station
 Unit Letter O (SW/4, SE/4), Section 36, Township 17 South, Range 34 East
 Lea County, New Mexico

Well Number	Sample Date	Bicarbonate Alkalinity (mg/L)	Carbonate Alkalinity (mg/L)	Chloride (mg/L)	Hydroxide Alkalinity (mg/L)	Sulfate, 375.4 (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)
MW-1	6/19/2002	262	<0.10	97.5	<0.10	46.6	87.6	17.4	6.20	41.0	458
MW-2	6/19/2002	220	<0.10	88.6	<0.10	26.6	79.7	14.3	3.72	24.0	509
MW-3	6/20/2002	177	<0.10	56.1	<0.10	54.7	45.4	8.9	3.57	41.0	335
MW-4	6/20/2002	216	<0.10	142.0	<0.10	62.5	83.6	16.8	5.05	61.0	588
MW-5	6/20/2002	160	<0.10	160.0	<0.10	57.6	71.6	12.4	4.91	68.0	521
MW-6	6/20/2002	180	<0.10	28.4	<0.10	41.0	41.3	7.7	3.19	36.0	329
MW-7	6/20/2002	182	<0.10	31.9	<0.10	43.4	37.2	7.3	3.63	51.0	337
MW-8	6/20/2002	230	<0.10	31.9	<0.10	26.2	57.8	11.9	2.85	21.0	359

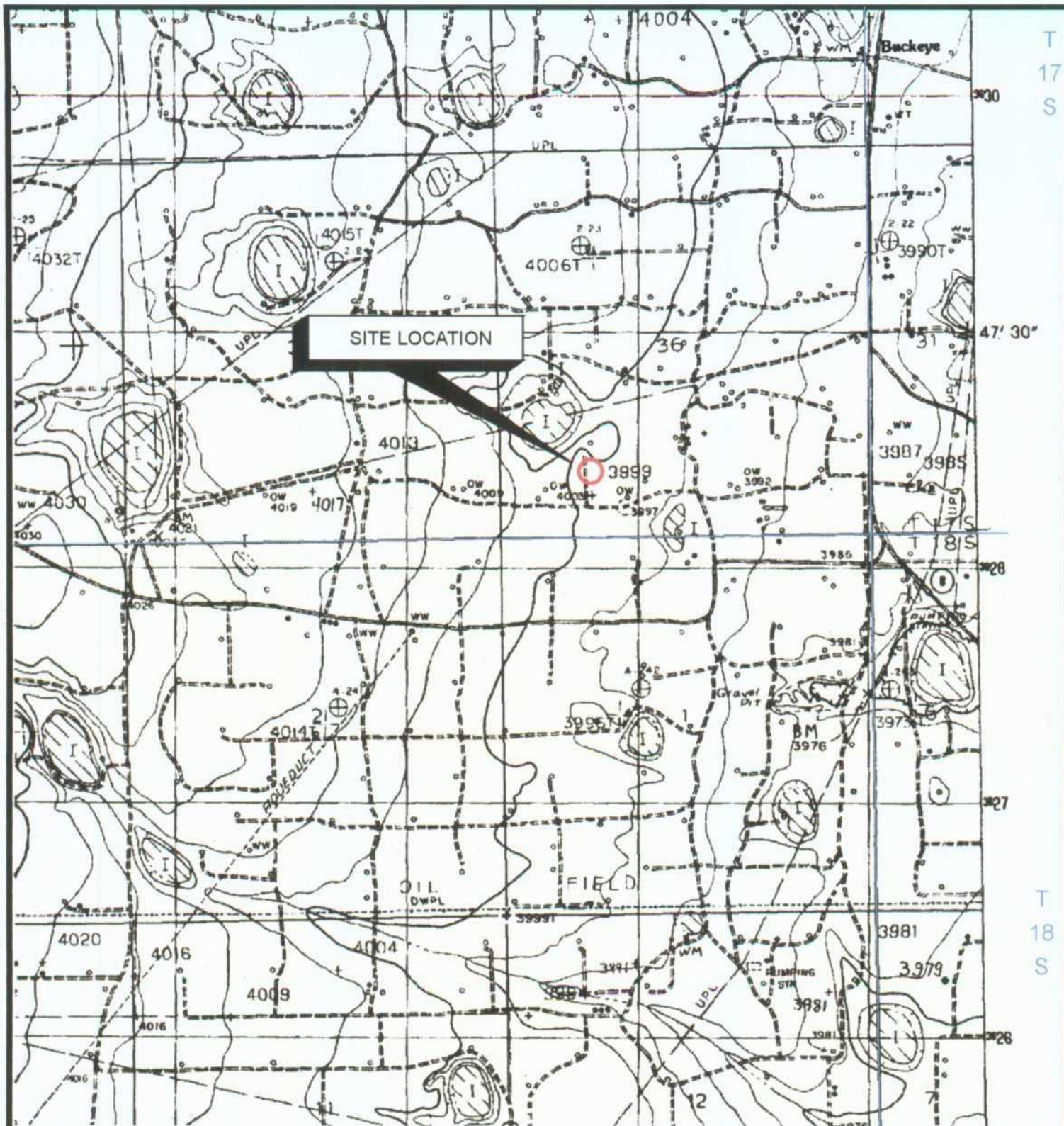
Notes:

1. mg/L:
Concentration in milligrams per liter
2. <:
Concentration below test method detection limit
3. ---:
No data available

All analyses performed by Environmental Lab of Texas I, LTD., Midland, Texas

FIGURES

FIGURES



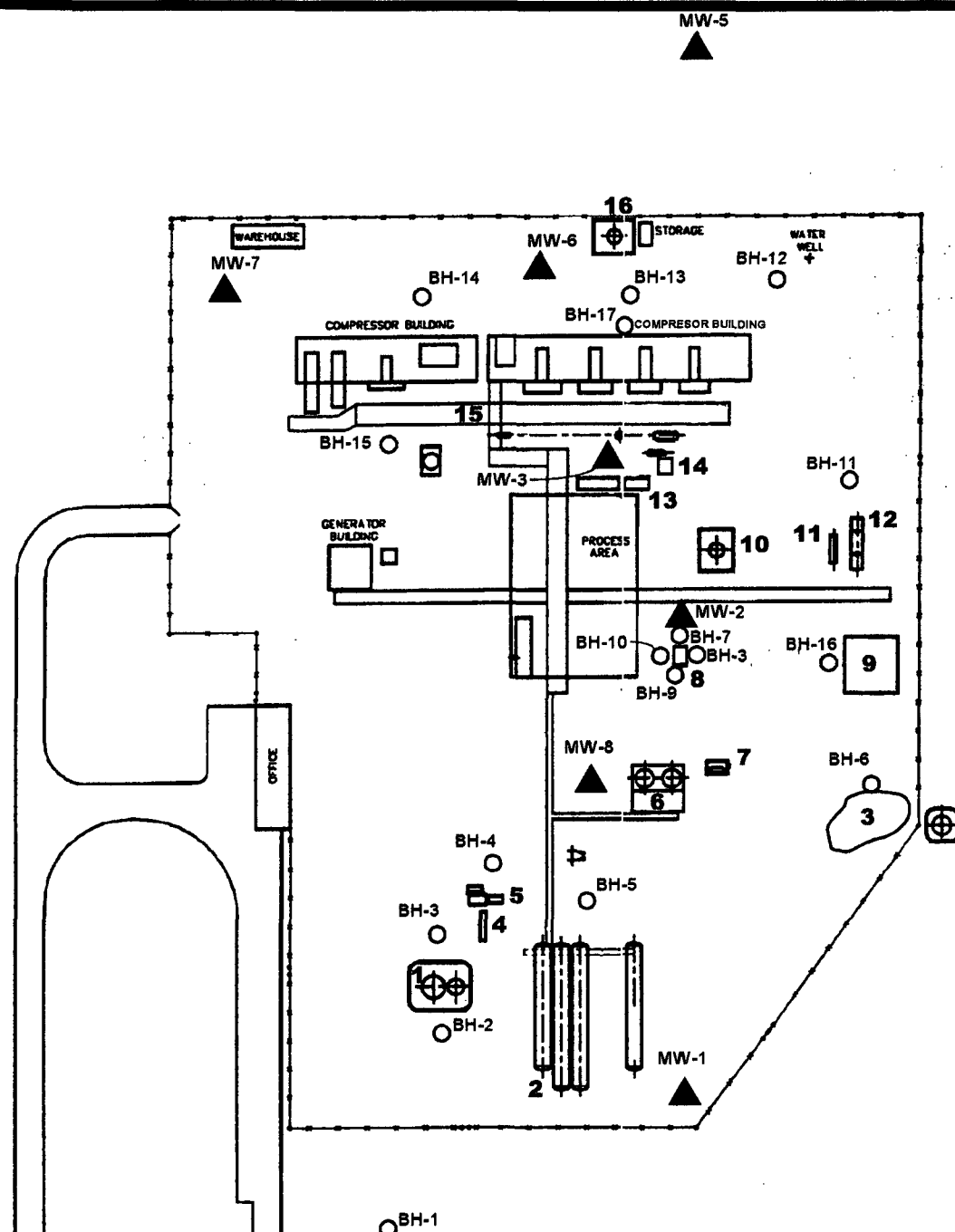
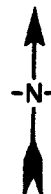
TAKEN FROM U.S.G.S.
BUCKEYE, NEW MEXICO 1985
7.5' QUADRANGLE



SCALE: 1"=2000'

DATE: 07/18/02
NAME:
FILE: 2-0102

FIGURE #1	
LEA COUNTY, NEW MEXICO	
TEXACO EXPLORATION and PRODUCTION INC.	
BUCKEYE COMPRESSOR STATION	
TOPOGRAPHIC MAP	



ENVIRONMENTAL INVESTIGATION AREA

1. SLOP OIL TANKS
2. STORAGE AREA
3. CONDENSATE STORAGE
4. METERING SKID
5. CHEVRON SALES PUMPS
6. COOLING TOWER
7. ACID STORAGE TANKS
8. SKIMMER PIT
9. GLYCOL REGENERATION AREA
10. AMINE STORAGE
11. SALT BED HEATER
12. HOT OIL HEATER
13. DEHYDRATOR SKIDS
14. THREE PHASE SEPARATOR
15. SLEEPER RACK
16. LUBE OIL

LEGEND

MW-1 ▲ MONITORING WELL LOCATION

BH-1 ○ SOIL BORING LOCATION

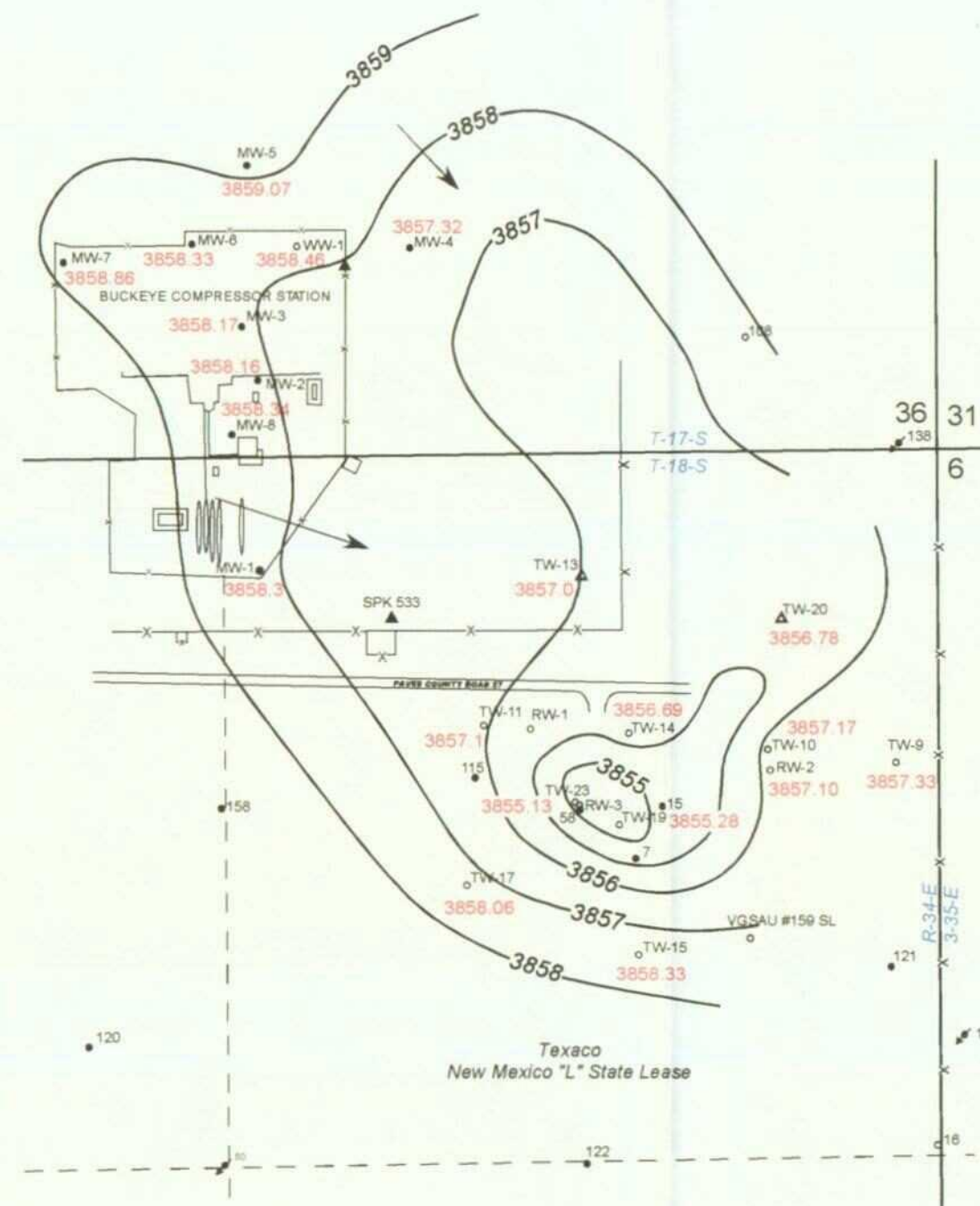
FIGURE #2

LEA COUNTY, NEW MEXICO
TEXACO EXPLORATION and
PRODUCTION INC.
BUCKEYE COMPRESSOR STATION

SITE DETAILS
PROPOSED SOIL BORING and
MONITORING WELL LOCATIONS

DATE: 04/04/01
NAME:
FILE: 2-0102

Larson &
Associates, Inc.
Environmental Consultants



LEGEND

- △ TW - EXISTING MONITORING WELL
- MW - MONITORING WELL
- WW - WATER WELL
- GROUNDWATER FLOW DIRECTION

3858.36 GROUNDWATER ELEVATION
FEET AMSL, 7/29/02

WELL DATA

WELL NUMBER	GROUND ELEV. FEET AMSL	TOP-OF CASING FEET AMSL
SPK 533	3988.31	
SPK 534	3988.30	
SPK 535	3988.65	
BM Q-151	3975.58	
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
RW-1	3985.84	3986.90
RW-2	3986.19	3986.99
RW-3	3982.72	3984.19
TW-9	3985.48	3988.60
TW-10	3985.57	3987.77
TW-11	3986.51	3989.12
TW-13	3986.57	3988.70
TW-14	3984.63	3986.67
TW-15	3981.74	3984.07
TW-17	3983.23	3985.22
TW-19	3982.34	3983.73
TW-20	3988.38	3988.39
TW-23	3982.20	3984.62
WW-1	3989.37	3990.00

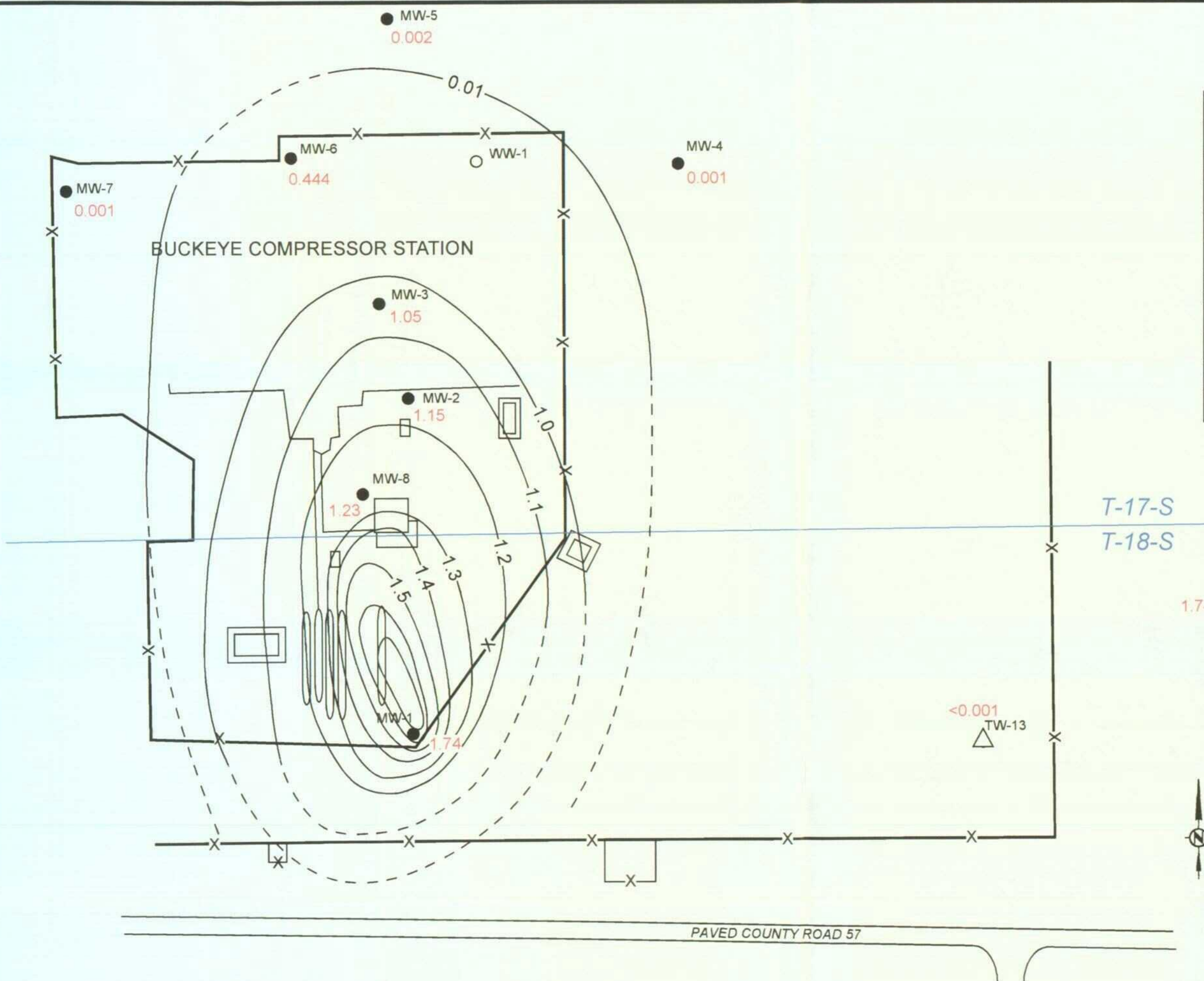
FIGURE #3

LEA COUNTY, NEW MEXICO
**TEXACO EXPLORATION and
 PRODUCTION INC.**
 BUCKEYE COMPRESSOR STATION
 SE/4 S/2, SEC 36, T17S, R34E
 NE/4 N/2, SEC 1, T18S, R34E

GROUNDWATER POTENTIOMETRIC SURFACE MAP
 7/29/02

DATE:
 NAME: CC
 FILE: 2-0102

Larson &
 ssociates, Inc.
 Environmental Consultants

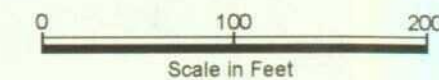


WELL DATA

WELL NUMBER	GROUND ELEV. FEET AMSL	TOP-OF CASING FEET AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
TW-13	3986.57	3988.70
TW-20	3986.38	3988.39
WW-1	3989.37	3990.00

LEGEND

- △ TMW - EXISTING MONITORING WELL
BENZENE CONCENTRATION
in GROUNDWATER (MG/L) 7/29/02
- MW - MONITORING WELL
BENZENE CONCENTRATION
in GROUNDWATER (MG/L)
6/19-20/02
- WW - WATER WELL



TW-20

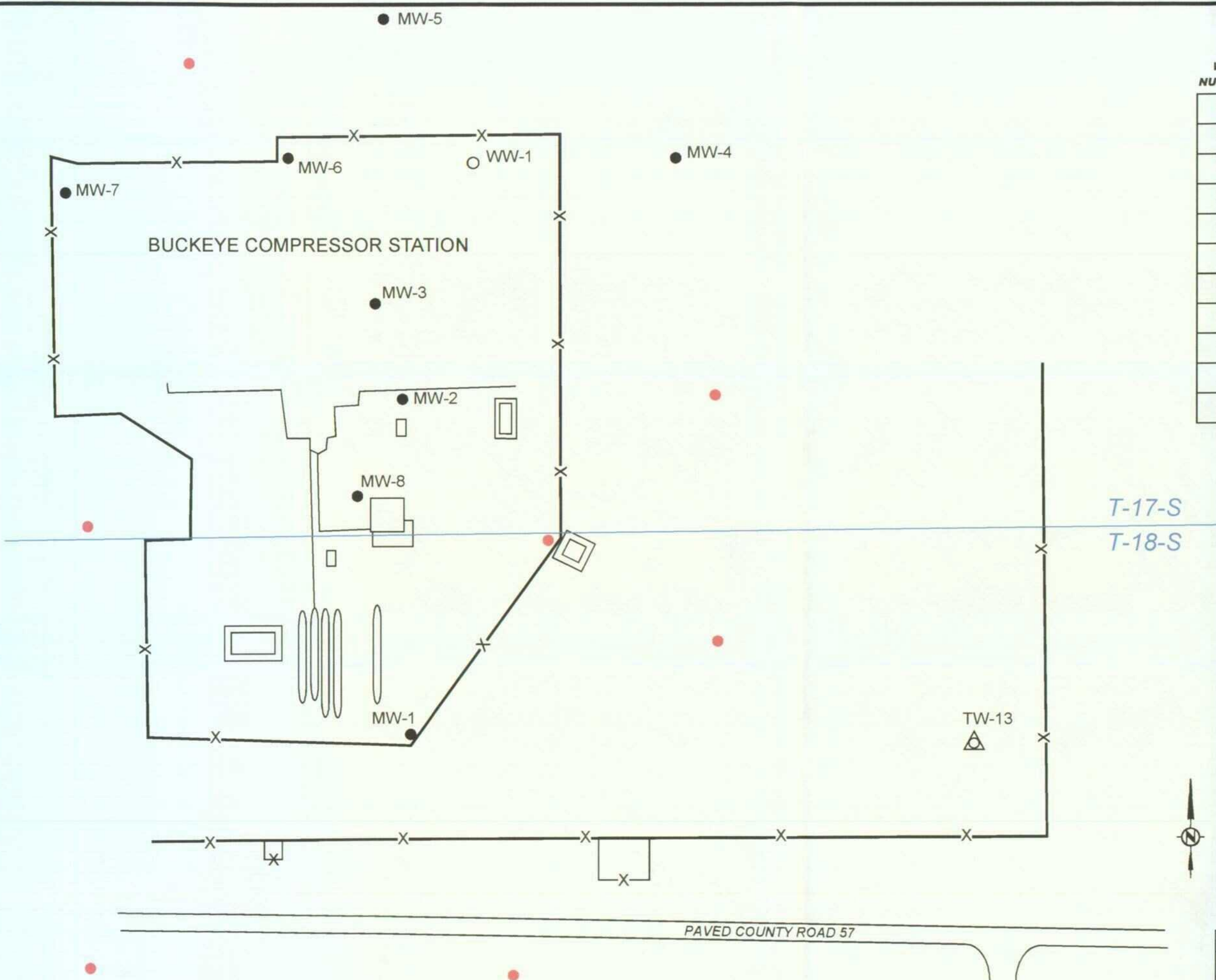
FIGURE #4

LEA COUNTY, NEW MEXICO
**TEXACO EXPLORATION and
 PRODUCTION INC.**
 BUCKEYE COMPRESSOR STATION
 SE/4 S/2, SEC 36, T17S, R34E
 NE/4 N/2, SEC 1, T18S, R34E

BENZENE ISOPLETH MAP
 6/19-20/02 and 7/29/02

DATE: 07/18/02
 NAME: CC
 FILE: 2-0102

Larson &
 Associates, Inc.
 Environmental Consultants

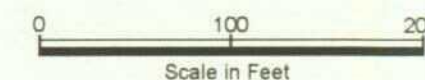


WELL DATA

WELL NUMBER	GROUND ELEV. FEET AMSL	TOP-OF CASING FEET AMSL
MW-1	3988.48	3990.85
MW-2	3988.71	3991.08
MW-3	3989.65	3991.75
MW-4	3989.25	3991.57
MW-5	3989.68	3992.12
MW-6	3989.38	3991.94
MW-7	3990.28	3992.89
MW-8	3988.83	3991.27
TW-13	3986.57	3988.70
TW-20	3986.38	3988.39
WW-1	3989.37	3990.00

LEGEND

- △ TW - EXISTING MONITORING WELL
- MW - MONITORING WELL
- WW - WATER WELL
- PROPOSED MONITORING WELL



TW-20
△

FIGURE #5

LEA COUNTY, NEW MEXICO

TEXACO EXPLORATION and
PRODUCTION INC.

BUCKEYE COMPRESSOR STATION

SE/4 S/2, SEC 36, T17S, R34E

NE/4 N/2, SEC 1, T18S, R34E

PROPOSED MONITORING WELL LOCATIONS

DATE: 07/18/02

NAME: CC

FILE: 2-0102

Larson &
Associates, Inc.
Environmental Consultants

PAVED COUNTY ROAD 57

APPENDIX A

APPENDIX A

Laboratory Reports

ANALYTICAL REPORT

Prepared for:

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Texaco/ Buckeye Plant
Order#: G0203531
Report Date: 06/14/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

Lab ID:	Sample :	Matrix:	Date / Time	Date / Time	Container	Preservative
			Collected	Received		
0203531-02	BH-1 (5-6')	SOIL	6/4/02 13:00	6/6/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.0 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0203531-06	BH-1 (30-31')	SOIL	6/4/02 13:50	6/6/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.0 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0203531-08	BH-2 (5-6')	SOIL	6/4/02 14:40	6/6/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.0 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203531-12	BH-2 (30-31')	SOIL	6/4/02 15:20	6/6/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.0 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0203531-14	BH-3 (5-6')	SOIL	6/5/02 8:40	6/6/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.0 C		
	8015M					
	8021B/5030 BTEX					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
	Chloride					
0203531-18	BH-3 (30-31')	SOIL	6/5/02 9:40	6/6/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.0 C		
	8015M					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0203531-21	BH-4 (10-11')	SOIL	6/5/02 10:12	6/6/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.0 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203531-24	BH-4 (30-31')	SOIL	6/5/02 10:40	6/6/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.0 C		
	8015M					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0203531-29	BH-5 (20-21')	SOIL	6/5/02 11:43	6/6/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.0 C		
	8015M					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0203531-30	BH-5 (30-31')	SOIL	6/5/02 12:10	6/6/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.0 C		
	8015M					
	Chloride					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0203531-31	BH-6 (0-7")	SOIL	6/5/02 13:11	6/6/02 8:15	4 oz glass	Ice
<u>Lab Testing:</u>		Rejected: No	Temp: 3.0 C			
8015M						
METALS RCRA 7 Total						
Chloride						
Mercury, Total						
0203531-36	BH-6 (30-31')	SOIL	6/5/02 13:45	6/6/02 8:15	4 oz glass	Ice
<u>Lab Testing:</u>		Rejected: No	Temp: 3.0 C			
8015M						
Chloride						
0203531-38	BH-7 (5-6')	SOIL	6/5/02 14:19	6/6/02 8:15	4 oz glass	Ice
<u>Lab Testing:</u>		Rejected: No	Temp: 3.0 C			
8015M						
8021B/5030 BTEX						
METALS RCRA 7 Total						
Chloride						
Mercury, Total						
0203531-42	BH-7 (30-31')	SOIL	6/5/02 15:13	6/6/02 8:15	4 oz glass	Ice
<u>Lab Testing:</u>		Rejected: No	Temp: 3.0 C			
8015M						
Chloride						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-02
Sample ID: BH-1 (5-6')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001926-02		6/6/02	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203531-06
Sample ID: BH-1 (30-31')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 10

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-06
Sample ID: BH-1 (30-31')

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0001926-02		6/6/02	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203531-08
Sample ID: BH-2 (5-6')

8015M

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-08
Sample ID: BH-2 (5-6')

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001926-02		6/6/02	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203531-12
Sample ID: BH-2 (30-31')

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	29.2	10.0
TOTAL, C6-C35	29.2	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-12
Sample ID: BH-2 (30-31')

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001926-02		6/6/02	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203531-14
Sample ID: BH-3 (5-6')

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-14
Sample ID: BH-3 (5-6')

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001926-02		6/6/02	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203531-18
Sample ID: BH-3 (30-31')

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	34.7	10.0
DRO, >C12-C35	60.6	10.0
TOTAL, C6-C35	95.3	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-21
Sample ID: BH-4 (10-11')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001926-02		6/6/02	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203531-24
Sample ID: BH-4 (30-31')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	17.2	10.0
TOTAL, C6-C35	17.2	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-29
Sample ID: BH-5 (20-21')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Lab ID: 0203531-30
Sample ID: BH-5 (30-31')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-31
Sample ID: BH-6 (0-7")

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	27.0	10.0
TOTAL, C6-C35	27.0	10.0

Lab ID: 0203531-36
Sample ID: BH-6 (30-31')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Approval: Raland K. Tuttle 6-24-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-02
Sample ID: BH-1 (5-6')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	3.80	mg/kg	50	0.400	3050/6010B	06/09/2002	6/13/02	SM
Barium	302	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Cadmium	0.144	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Chromium	1.56	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM
Lead	< 0.550	mg/kg	50	0.550	3050/6010B	06/09/2002	6/13/02	SM
Selenium	< 0.20	mg/kg	50	0.200	3050/6010B	06/09/2002	6/13/02	SM
Silver	< 0.10	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.100	mg/kg	50	0.100	7471	06/10/2002	6/10/02	SM

Lab ID: 0203531-06
Sample ID: BH-1 (30-31')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	2.50	mg/kg	50	0.400	3050/6010B	06/09/2002	6/13/02	SM
Barium	111	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Cadmium	0.177	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Chromium	4.07	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM
Lead	< 0.550	mg/kg	50	0.550	3050/6010B	06/09/2002	6/13/02	SM
Selenium	< 0.20	mg/kg	50	0.200	3050/6010B	06/09/2002	6/13/02	SM
Silver	< 0.10	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.080	mg/kg	100	0.080	7471	06/10/2002	6/10/02	SM

Lab ID: 0203531-12
Sample ID: BH-2 (30-31')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	3.63	mg/kg	50	0.400	3050/6010B	06/09/2002	6/13/02	SM
Barium	30.2	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Cadmium	0.226	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Chromium	5.00	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM
Lead	< 0.550	mg/kg	50	0.550	3050/6010B	06/09/2002	6/13/02	SM
Selenium	< 0.20	mg/kg	50	0.200	3050/6010B	06/09/2002	6/13/02	SM
Silver	< 0.10	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-12
Sample ID: BH-2 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.080	mg/kg	100	0.080	7471	06/10/2002	6/10/02	SM

Lab ID: 0203531-18
Sample ID: BH-3 (30-31')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	1.95	mg/kg	50	0.400	3050/6010B	06/09/2002	6/13/02	SM
Barium	31.4	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Cadmium	0.322	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Chromium	5.91	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM
Lead	< 0.550	mg/kg	50	0.550	3050/6010B	06/09/2002	6/13/02	SM
Selenium	< 0.20	mg/kg	50	0.200	3050/6010B	06/09/2002	6/13/02	SM
Silver	< 0.10	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.080	mg/kg	100	0.080	7471	06/10/2002	6/10/02	SM

Lab ID: 0203531-24
Sample ID: BH-4 (30-31')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	3.79	mg/kg	50	0.400	3050/6010B	06/09/2002	6/13/02	SM
Barium	64.5	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Cadmium	0.135	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Chromium	4.61	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM
Lead	< 0.550	mg/kg	50	0.550	3050/6010B	06/09/2002	6/13/02	SM
Selenium	< 0.20	mg/kg	50	0.200	3050/6010B	06/09/2002	6/13/02	SM
Silver	< 0.10	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.080	mg/kg	100	0.080	7471	06/10/2002	6/10/02	SM

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-29
Sample ID: BH-5 (20-21')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	5.88	mg/kg	50	0.400	3050/6010B	06/09/2002	6/13/02	SM
Barium	88.4	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Cadmium	0.151	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Chromium	3.22	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM
Lead	< 0.550	mg/kg	50	0.550	3050/6010B	06/09/2002	6/13/02	SM
Selenium	< 0.20	mg/kg	50	0.200	3050/6010B	06/09/2002	6/13/02	SM
Silver	< 0.10	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.080	mg/kg	100	0.080	7471	06/10/2002	6/10/02	SM

Lab ID: 0203531-31
Sample ID: BH-6 (0-7")

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	5.71	mg/kg	50	0.400	3050/6010B	06/09/2002	6/13/02	SM
Barium	126	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Cadmium	1.56	mg/kg	50	0.050	3050/6010B	06/09/2002	6/13/02	SM
Chromium	179	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM
Lead	2.91	mg/kg	50	0.550	3050/6010B	06/09/2002	6/13/02	SM
Selenium	< 0.20	mg/kg	50	0.200	3050/6010B	06/09/2002	6/13/02	SM
Silver	< 0.10	mg/kg	50	0.100	3050/6010B	06/09/2002	6/13/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.10	mg/kg	50	0.10	7471	06/10/2002	6/10/02	SM

Approval:

Raland K. Tuttle 6-24-02
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-38
Sample ID: BH-7 (5-6')

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	78.6	10.0
TOTAL, C6-C35	78.6	10.0

8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0001926-02		6/6/02	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203531-42
Sample ID: BH-7 (30-31')

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		6/6/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	20.9	10.0
TOTAL, C6-C35	20.9	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-38
Sample ID: BH-7 (5-6')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Arsenic	3.51	mg/kg	50	0.400	3050/6010B	06/17/2002	6/20/02	SM
Barium	168	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Cadmium	0.360	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Chromium	5.50	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM
Lead	0.707	mg/kg	50	0.550	3050/6010B	06/17/2002	6/20/02	SM
Selenium	< 0.200	mg/kg	50	0.200	3050/6010B	06/17/2002	6/20/02	SM
Silver	0.785	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.100	mg/kg	50	0.100	7471	06/17/2002	6/21/02	SM

Approval:

Raland K. Tuttle, Lab Director, QA Officer

Date

Celey D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-02
Sample ID: BH-1 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	<10.0	mg/kg	1	10	9253	6/6/02	SB

Lab ID: 0203531-06
Sample ID: BH-1 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	<10.0	mg/kg	1	10	9253	6/6/02	SB

Lab ID: 0203531-08
Sample ID: BH-2 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	47.3	mg/kg	1	10	9253	6/6/02	SB

Lab ID: 0203531-12
Sample ID: BH-2 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	22.2	mg/kg	1	10	9253	6/6/02	SB

Lab ID: 0203531-14
Sample ID: BH-3 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/6/02	SB

Lab ID: 0203531-18
Sample ID: BH-3 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	35.4	mg/kg	1	10	9253	6/6/02	SB

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-21
Sample ID: BH-4 (10-11')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/6/02	SB

Lab ID: 0203531-24
Sample ID: BH-4 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/6/02	SB

Lab ID: 0203531-29
Sample ID: BH-5 (20-21')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/6/02	SB

Lab ID: 0203531-30
Sample ID: BH-5 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/6/02	SB

Lab ID: 0203531-31
Sample ID: BH-6 (0-7")

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/6/02	SB

Lab ID: 0203531-36
Sample ID: BH-6 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/6/02	SB

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203531
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203531-38

Sample ID: BH-7 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	53.2	mg/kg	1	10	9253	6/6/02	SB

Lab ID: 0203531-42

Sample ID: BH-7 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	50.6	mg/kg	1	10	9253	6/6/02	SB

Approval: Raland K. Tuttle 6-24-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0203531

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0001915-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0203531-02	0	952	1020	107.1%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0203531-02	0	952	996	104.6%	2.4%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0001915-05		1000	1040	104.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203531

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0001926-02			< 0.025		
Ethylbenzene-mg/kg		0001926-02			< 0.025		
Toluene-mg/kg		0001926-02			< 0.025		
p/m-Xylene-mg/kg		0001926-02			< 0.025		
o-Xylene-mg/kg		0001926-02			< 0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0203531-21	0	0.1	0.098	98.%	
Ethylbenzene-mg/kg		0203531-21	0	0.1	0.095	95.%	
Toluene-mg/kg		0203531-21	0	0.1	0.093	93.%	
p/m-Xylene-mg/kg		0203531-21	0	0.2	0.190	95.%	
o-Xylene-mg/kg		0203531-21	0	0.1	0.094	94.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0203531-21	0	0.1	0.108	108.%	9.7%
Ethylbenzene-mg/kg		0203531-21	0	0.1	0.104	104.%	9.%
Toluene-mg/kg		0203531-21	0	0.1	0.101	101.%	8.2%
p/m-Xylene-mg/kg		0203531-21	0	0.2	0.206	103.%	8.1%
o-Xylene-mg/kg		0203531-21	0	0.1	0.104	104.%	10.1%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0001926-05		0.1	0.104	104.%	
Ethylbenzene-mg/kg		0001926-05		0.1	0.099	99.%	
Toluene-mg/kg		0001926-05		0.1	0.098	98.%	
p/m-Xylene-mg/kg		0001926-05		0.2	0.197	98.5%	
o-Xylene-mg/kg		0001926-05		0.1	0.099	99.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

METALS RCRA 7 Total

Order#: G0203531

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0002001-02			< 0.40		
Arsenic-mg/kg		0002128-02			< 0.40		
Barium-mg/kg		0002001-02			< 0.050		
Barium-mg/kg		0002128-02			< 0.050		
Cadmium-mg/kg		0002001-02			< 0.050		
Cadmium-mg/kg		0002128-02			< 0.050		
Chromium-mg/kg		0002001-02			< 0.10		
Chromium-mg/kg		0002128-02			< 0.10		
Lead-mg/kg		0002001-02			< 0.55		
Lead-mg/kg		0002128-02			< 0.55		
Selenium-mg/kg		0002001-02			< 0.20		
Selenium-mg/kg		0002128-02			< 0.20		
Silver-mg/kg		0002001-02			< 0.10		
Silver-mg/kg		0002128-02			< 0.10		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0002001-03		10	8.56	85.6%	
Arsenic-mg/kg		0002128-03		10	10.9	109.%	
Barium-mg/kg		0002001-03		50	47.5	95.%	
Barium-mg/kg		0002128-03		50	50.7	101.4%	
Cadmium-mg/kg		0002001-03		10	7.95	79.5%	
Cadmium-mg/kg		0002128-03		10	9.38	93.8%	
Chromium-mg/kg		0002001-03		50	44.8	89.6%	
Chromium-mg/kg		0002128-03		50	50.2	100.4%	
Lead-mg/kg		0002001-03		50	44.2	88.4%	
Lead-mg/kg		0002128-03		50	50.2	100.4%	
Selenium-mg/kg		0002001-03		10	7.97	79.7%	
Selenium-mg/kg		0002128-03		10	11.2	112.%	
Silver-mg/kg		0002001-03		50	46.1	92.2%	
Silver-mg/kg		0002128-03		50	53.3	106.6%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0002001-04		10	7.90	79.%	8.%
Arsenic-mg/kg		0002128-04		10	11.3	113.%	3.6%
Barium-mg/kg		0002001-04		50	47.1	94.2%	0.8%
Barium-mg/kg		0002128-04		50	51.8	103.6%	2.1%
Cadmium-mg/kg		0002001-04		10	7.90	79.%	0.6%
Cadmium-mg/kg		0002128-04		10	9.40	94.%	0.2%
Chromium-mg/kg		0002001-04		50	44.8	89.6%	0.%
Chromium-mg/kg		0002128-04		50	51.3	102.6%	2.2%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

CONTROL DUP SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Lead-mg/kg	0002001-04		50	44.4	88.8%	0.5%
Lead-mg/kg	0002128-04		50	50.4	100.8%	0.4%
Selenium-mg/kg	0002001-04		10	8.03	80.3%	0.7%
Selenium-mg/kg	0002128-04		10	11.4	114.%	1.8%
Silver-mg/kg	0002001-04		50	45.9	91.8%	0.4%
Silver-mg/kg	0002128-04		50	53.4	106.8%	0.2%
SRM SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg	0002001-05		1	0.975	97.5%	
Arsenic-mg/kg	0002128-05		1	1.01	101.%	
Barium-mg/kg	0002001-05		1	1.06	106.%	
Barium-mg/kg	0002128-05		1	1.06	106.%	
Cadmium-mg/kg	0002001-05		1	1.07	107.%	
Cadmium-mg/kg	0002128-05		1	0.989	98.9%	
Chromium-mg/kg	0002001-05		1	1.02	102.%	
Chromium-mg/kg	0002128-05		1	0.986	98.6%	
Lead-mg/kg	0002001-05		1	1.03	103.%	
Lead-mg/kg	0002128-05		1	0.993	99.3%	
Selenium-mg/kg	0002001-05		1	1.06	106.%	
Selenium-mg/kg	0002128-05		1	0.990	99.%	
Silver-mg/kg	0002001-05		0.5	0.460	92.%	
Silver-mg/kg	0002128-05		0.5	0.522	104.4%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0203531

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0001907-01			<10.0		
Mercury, Total-mg/kg		0002004-01			< 0.10		
Mercury, Total-mg/kg		0002132-01			< 0.10		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Total-mg/kg		0002005-02		1	1.03	103.0%	
Mercury, Total-mg/kg		0002132-02		1	0.875	87.5%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Total-mg/kg		0002005-03		1	0.955	95.5%	7.6%
Mercury, Total-mg/kg		0002132-03		1	0.925	92.5%	5.6%
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0203513-01	3630	5000	8600	99.4%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0203513-01	3630	5000	8500	97.4%	1.2%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0001907-04		5000	5050	101.0%	
Mercury, Total-mg/kg		0002004-04		0.03	0.027	90.0%	
Mercury, Total-mg/kg		0002132-04		0.75	0.735	98.0%	

CHAIN—OF—CUSTODY RECORD

CLIENT NAME: Texaco
SITE MANAGER: Linda Crain
PROJECT NO.: 2-0102
PROJECT NAME: Buckeye Plant

LAB. PO # 3
DATE 6-5-02 **TIME** 10:03
OTHER ✓
SOIL ✓
WATER ✓

NUMBER OF CONTAINERS 1
PARAMETERS/METHOD NUMBER TPH 8015 M
Metals: Cr, Pb, Hg, Se
Chlorides
161d
LAB. I.D. NUMBER (LAB USE ONLY) 0203531-19
REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
6-5-02	10:03	✓	✓		BH-4 (0-1')	1	BTEX 8021 B	0203531-19	
"	10:08	✓	✓		BH-4 (5-6')	1		20	
"	10:12	✓	✓		BH-4 (10-11')	1		21	
"	10:23	✓	✓		BH-4 (15-16')	1		22	
"	10:30	✓	✓		BH-4 (20-21')	1		23	
"	10:40	✓	✓		BH-4 (30-31')	1		24	
"	11:04	✓	✓		BH-5 (0-7")	1		25	
"	11:10	✓	✓		BH-5 (5-6')	1		26	
"	11:15	✓	✓		BH-5 (10-11')	1		27	
"	11:21	✓	✓		BH-5 (15-16')	1		28	
"	11:43	✓	✓		BH-5 (20-21')	1		29	
"	12:10	✓	✓		BH-5 (30-31')	1		30	
"	13:11	✓	✓		BH-6 (0-7")	1		31	
"	13:18	✓	✓		BH-6 (5-6')	1		32	
"	13:24	✓	✓		BH-6 (10-11')	1		33	
"	13:28	✓	✓		BH-6 (15-16')	1		34	
"	13:36	✓	✓		BH-6 (20-21')	1		35	
"	13:45	✓	✓		BH-6 (30-31')	1		36	

SAMPLED BY: (Signature) Linda Crain **DATE:** 6/6/02 **TIME:** 7:20
RELINQUISHED BY: (Signature) Linda Crain **DATE:** 6/6/02 **TIME:** 8:00

RECEIVED BY: (Signature) _____ **DATE:** _____ **TIME:** _____
RECEIVED BY: (Signature) _____ **DATE:** _____ **TIME:** _____
TURNAROUND TIME NEEDED _____

COMMENTS: * Analyze sample from each boring, with highest TPH, for metals
RECEIVING LABORATORY: ELOT **RECEIVED BY:** (Signature) _____
ADDRESS: 12600 W. I-20, East **STATE:** TX **ZIP:** 79765
CITY: Odessa **PHONE:** 915-563-1800 **DATE:** 6-6-02 **TIME:** 08:13
CONTACT: _____
LA CONTACT PERSON: _____
SAMPLE CONDITION WHEN RECEIVED: 3.0°C

RECEIVING LAB
WHITE - RECEIVING LAB
YELLOW - RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK - PROJECT MANAGER
GOLD - QA/QC COORDINATOR
SAMPLE TYPE: _____

CHAIN—OF—CUSTODY RECORD

CLIENT NAME: Texaco
 PROJECT NO.: 2-0102
 SITE MANAGER: Cindy Crain
 PROJECT NAME: Buckeye Plant

LAB. PO # 3
 OF 3
 DATE 6-5-02 TIME 14:10
 " 14:19
 " 14:23
 " 15:04
 " 15:08
 " 15:13

NUMBER OF CONTAINERS
1
1
1
1
1
1

PARAMETERS/METHOD NUMBER
BTEX 8001B
TPH 8015 M
Metals: As, Pb, Hg, Cd, Cr, Ni, Cu, Zn, Mn, Fe, Al, Si, Ti, V, Co, Mo, Se, Ba, Sr, K, Na, Ca, Mg, Li, B, Be, Bi, Br, F, Ga, Ge, In, Ir, La, Nb, Os, Pd, Pt, Rh, Rb, Ru, Sb, Sn, Te, Tl, U, W, Y, Zr, H, He, Li, Be, B, C, N, O, F, Ne, Na, Mg, Al, Si, P, S, Cl, Ar, K, Ca, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Br, Kr, Rb, Sr, Y, Zr, Nb, Mo, Tc, Ru, Rh, Pd, Ag, Cd, In, Sn, Sb, Te, I, Xe, Ba, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, Ta, W, Re, Os, Ir, Pt, Au, Hg, Tl, Pb, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr

REMARKS
 (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
Hold
✓
✓
✓
✓
✓

LAB. I.D. NUMBER (LAB USE ONLY)
0203531-37
38
39
40
41
42

RECEIVED BY: (Signature) Cindy Crain DATE: 6-6-02 TIME: 7:20

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

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

SAMPLE TYPE: 3,0°C

SAMPLED BY: (Signature) Cindy Crain DATE: 6-5-02 TIME: 14:10

RELINQUISHED BY: (Signature) Cindy Crain DATE: 6-6-02 TIME: 7:20

COMMENTS: * Analyze sample from each boring, with highest TPH, for metals
 RECEIVING LABORATORY: ECOT
 ADDRESS: 12600 West I-20 East
 CITY: Odessa STATE: TX ZIP: 79765
 CONTACT: PHONE: 503-1800

LA CONTACT PERSON:

ANALYTICAL REPORT

Prepared for:

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Texaco/ Buckeye Plant
Order#: G0203596
Report Date: 06/25/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0203596-02	BH-8 (5-6')	SOIL	6/6/02 9:56	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0203596-06	BH-8 (30-31')	SOIL	6/6/02 10:41	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203596-08	BH-9 (5-6')	SOIL	6/6/02 11:04	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0203596-12	BH-9 (30-31')	SOIL	6/6/02 11:50	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203596-13	BH-10 (0-2')	SOIL	6/6/02 12:42	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

Lab ID:	Sample :	Matrix:	Date / Time	Date / Time	Container	Preservative
			Collected	Received		
	Mercury, Total					
0203596-17	BH-10 (20-21')	SOIL	6/6/02 13:30	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203596-18	BH-10 (30-31')	SOIL	6/6/02 13:39	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203596-20	BH-11 (5-6')	SOIL	6/7/02 8:09	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0203596-24	BH-11 (30-31')	SOIL	6/7/02 9:05	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203596-26	BH-12 (5-6')	SOIL	6/7/02 9:32	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

Lab ID:	Sample :	Matrix:	Date / Time	Date / Time	Container	Preservative
			Collected	Received		
0203596-28	BH-12 (15-16')	SOIL	6/7/02 9:58	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203596-30	BH-12 (30-31')	SOIL	6/7/02 10:21	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203596-31	BH-13 (0-2')	SOIL	6/7/02 10:45	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					
0203596-36	BH-13 (30-31')	SOIL	6/7/02 11:18	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	Chloride					
0203596-37	BH-14 (0-6")	SOIL	6/7/02 13:18	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 C		
	8015M					
	8021B/5030 BTEX					
	METALS RCRA 7 Total					
	Chloride					
	Mercury, Total					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0203596-40	BH-14 (15-16')	SOIL	6/7/02 13:45	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX Chloride	Rejected: No		Temp: 3.5 C		
0203596-42	BH-14 (30-31')	SOIL	6/7/02 13:59	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M Chloride	Rejected: No		Temp: 3.5 C		
0203596-43	BH-15 (0-6")	SOIL	6/7/02 14:26	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX METALS RCRA 7 Total Chloride Mercury, Total	Rejected: No		Temp: 3.5 C		
0203596-46	BH-15 (15-16')	SOIL	6/7/02 14:45	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX Chloride	Rejected: No		Temp: 3.5 C		
0203596-48	BH-15 (30-31')	SOIL	6/7/02 15:00	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX Chloride	Rejected: No		Temp: 3.5 C		
0203596-49	BH-16 (0-1')	SOIL	6/6/02 13:58	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.5 C		

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
	8021B/5030 BTEX METALS RCRA 7 Total Chloride Mercury, Total					
0203596-54	BH-16 (30-31')	SOIL	6/6/02 14:50	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M Chloride	Rejected: No		Temp: 3.5 C		
0203596-55	BH-17 (0-1')	SOIL	6/7/02 12:22	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX METALS RCRA 7 Total Chloride Mercury, Total	Rejected: No		Temp: 3.5 C		
0203596-58	BH-17 (15-16')	SOIL	6/7/02 12:40	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX Chloride	Rejected: No		Temp: 3.5 C		
0203596-60	BH-17 (30-31')	SOIL	6/7/02 12:53	6/8/02 12:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX Chloride	Rejected: No		Temp: 3.5 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-02
Sample ID: BH-8 (5-6')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/11/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	15.1	10.0
TOTAL, C6-C35	15.1	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001971-02		6/11/02 1:09	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-06
Sample ID: BH-8 (30-31')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 21

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-06
Sample ID: BH-8 (30-31')

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001971-02		6/11/02 10:22	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-08
Sample ID: BH-9 (5-6')

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: 0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-08
Sample ID: BH-9 (5-6')

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001971-02		6/11/02 10:44	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-12
Sample ID: BH-9 (30-31')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: 0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-12
Sample ID: BH-9 (30-31')

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001971-02		6/11/02 11:06	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-13
Sample ID: BH-10 (0-2')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	5	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	357	50.0
DRO, >C12-C35	1750	50.0
TOTAL, C6-C35	2107	50.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-13
Sample ID: BH-10 (0-2')

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02 12:12	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-17
Sample ID: BH-10 (20-21')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-17
Sample ID: BH-10 (20-21')

8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0001987-02		6/12/02 12:34	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-18
Sample ID: BH-10 (30-31')

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	30.1	10.0
TOTAL, C6-C35	30.1	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-18
Sample ID: BH-10 (30-31')

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02 12:56	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-20
Sample ID: BH-11 (5-6')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 7 of 21

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-20
Sample ID: BH-11 (5-6')

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02	1	25	CK	8021B
		13:18				

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-24
Sample ID: BH-11 (30-31')

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-24
Sample ID: BH-11 (30-31')

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02 13:40	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-26
Sample ID: BH-12 (5-6')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-26
Sample ID: BH-12 (5-6')

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02 14:02	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-28
Sample ID: BH-12 (15-16')

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-28
Sample ID: BH-12 (15-16')

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02 14:24	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-30
Sample ID: BH-12 (30-31')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-30
Sample ID: BH-12 (30-31')

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02 14:46	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-31
Sample ID: BH-13 (0-2')

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	5	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	91.6	50.0
DRO, >C12-C35	5810	50.0
TOTAL, C6-C35	5902	50.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-36
Sample ID: BH-13 (30-31')

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	14.4	10.0
TOTAL, C6-C35	14.4	10.0

Lab ID: 0203596-37
Sample ID: BH-14 (0-6")

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	13.4	10.0
TOTAL, C6-C35	13.4	10.0

8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0001987-02		6/12/02 15:08	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-40
Sample ID: BH-14 (15-16')

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02 15:30	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-42
Sample ID: BH-14 (30-31')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Lab ID: 0203596-43
Sample ID: BH-15 (0-6")

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02 11:21	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-46
Sample ID: BH-15 (15-16')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02 20:18	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-48
Sample ID: BH-15 (30-31')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/10/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02 20:40	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-49
Sample ID: BH-16 (0-1')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/11/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-49
Sample ID: BH-16 (0-1')

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0001987-02		6/12/02 21:02	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-54
Sample ID: BH-16 (30-31')

8015M

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
		6/11/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-55
Sample ID: BH-17 (0-1')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/11/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	16.7	10.0
DRO, >C12-C35	627	10.0
TOTAL, C6-C35	644	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0001987-02		6/12/02 21:24	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	0.063	0.025
Ethylbenzene	0.094	0.025
Toluene	0.111	0.025
p/m-Xylene	0.108	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-58
Sample ID: BH-17 (15-16')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/11/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	24.2	10.0
DRO, >C12-C35	375	10.0
TOTAL, C6-C35	399	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-58
Sample ID: BH-17 (15-16')

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0001987-02		6/12/02 21:46	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	0.043	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203596-60
Sample ID: BH-17 (30-31')

8015M

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
		6/11/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	27.8	10.0
DRO, >C12-C35	318	10.0
TOTAL, C6-C35	346	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-60
Sample ID: BH-17 (30-31')

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0001987-02		6/12/02 22:08	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Approval:

Raland K. Tuttle 6-26-02
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-02
Sample ID: BH-8 (5-6')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	2.78	mg/kg	50	0.400	3050/6010B	06/17/2002	6/20/02	SM
Barium	81.4	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Cadmium	0.448	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Chromium	5.48	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM
Lead	< 0.550	mg/kg	50	0.550	3050/6010B	06/17/2002	6/20/02	SM
Selenium	< 0.200	mg/kg	50	0.200	3050/6010B	06/17/2002	6/20/02	SM
Silver	0.496	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.040	mg/kg	50	0.040	7471	06/17/2002	6/21/02	SM

Lab ID: 0203596-08
Sample ID: BH-9 (5-6')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	1.55	mg/kg	50	0.400	3050/6010B	06/17/2002	6/20/02	SM
Barium	65.1	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Cadmium	0.340	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Chromium	4.34	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM
Lead	< 0.550	mg/kg	50	0.550	3050/6010B	06/17/2002	6/20/02	SM
Selenium	< 0.200	mg/kg	50	0.200	3050/6010B	06/17/2002	6/20/02	SM
Silver	0.155	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.040	mg/kg	50	0.040	7471	06/17/2002	6/21/02	SM

Lab ID: 0203596-13
Sample ID: BH-10 (0-2')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	3.40	mg/kg	50	0.400	3050/6010B	06/17/2002	6/20/02	SM
Barium	124	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Cadmium	0.844	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Chromium	16.7	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM
Lead	3.80	mg/kg	50	0.550	3050/6010B	06/17/2002	6/20/02	SM
Selenium	3.74	mg/kg	50	0.200	3050/6010B	06/17/2002	6/20/02	SM
Silver	< 0.100	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-13
Sample ID: BH-10 (0-2')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.100	mg/kg	50	0.100	7471	06/17/2002	6/21/02	SM

Lab ID: 0203596-20
Sample ID: BH-11 (5-6')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	1.51	mg/kg	50	0.400	3050/6010B	06/17/2002	6/20/02	SM
Barium	78.3	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Cadmium	0.394	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Chromium	4.12	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM
Lead	< 0.550	mg/kg	50	0.550	3050/6010B	06/17/2002	6/20/02	SM
Selenium	0.881	mg/kg	50	0.200	3050/6010B	06/17/2002	6/20/02	SM
Silver	< 0.100	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.040	mg/kg	50	0.040	7471	06/17/2002	6/21/02	SM

Lab ID: 0203596-26
Sample ID: BH-12 (5-6')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	4.15	mg/kg	50	0.400	3050/6010B	06/17/2002	6/20/02	SM
Barium	1918	mg/kg	1250	1.25	3050/6010B	06/17/2002	6/20/02	SM
Cadmium	0.118	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Chromium	1.58	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM
Lead	< 0.550	mg/kg	50	0.550	3050/6010B	06/17/2002	6/20/02	SM
Selenium	< 0.200	mg/kg	50	0.200	3050/6010B	06/17/2002	6/20/02	SM
Silver	< 0.100	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.100	mg/kg	50	0.100	7471	06/17/2002	6/21/02	SM

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-31
Sample ID: BH-13 (0-2')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	16.1	mg/kg	50	0.400	3050/6010B	06/17/2002	6/20/02	SM
Barium	254	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Cadmium	0.435	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Chromium	4.63	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM
Lead	2.90	mg/kg	50	0.550	3050/6010B	06/17/2002	6/20/02	SM
Selenium	< 0.200	mg/kg	50	0.200	3050/6010B	06/17/2002	6/20/02	SM
Silver	< 0.100	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.100	mg/kg	50	0.100	7471	06/17/2002	6/21/02	SM

Lab ID: 0203596-37
Sample ID: BH-14 (0-6")

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	11.1	mg/kg	50	0.400	3050/6010B	06/17/2002	6/20/02	SM
Barium	269	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Cadmium	0.690	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Chromium	8.57	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM
Lead	7.23	mg/kg	50	0.550	3050/6010B	06/17/2002	6/20/02	SM
Selenium	< 0.200	mg/kg	50	0.200	3050/6010B	06/17/2002	6/20/02	SM
Silver	< 0.100	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.100	mg/kg	50	0.100	7471	06/17/2002	6/21/02	SM

Lab ID: 0203596-43
Sample ID: BH-15 (0-6")

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	5.14	mg/kg	50	0.400	3050/6010B	06/17/2002	6/20/02	SM
Barium	288	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Cadmium	0.421	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Chromium	2.50	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM
Lead	1.05	mg/kg	50	0.550	3050/6010B	06/17/2002	6/20/02	SM
Selenium	< 0.200	mg/kg	50	0.200	3050/6010B	06/17/2002	6/20/02	SM
Silver	< 0.100	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-43
Sample ID: BH-15 (0-6")

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.100	mg/kg	50	0.100	7471	06/17/2002	6/21/02	SM

Lab ID: 0203596-49
Sample ID: BH-16 (0-1')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	3.41	mg/kg	50	0.400	3050/6010B	06/17/2002	6/20/02	SM
Barium	93.3	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Cadmium	1.05	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Chromium	14.0	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM
Lead	2.95	mg/kg	50	0.550	3050/6010B	06/17/2002	6/20/02	SM
Selenium	< 0.200	mg/kg	50	0.200	3050/6010B	06/17/2002	6/20/02	SM
Silver	< 0.100	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.100	mg/kg	50	0.100	7471	06/17/2002	6/21/02	SM

Lab ID: 0203596-55
Sample ID: BH-17 (0-1')

METALS RCRA 7 Total

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	22.3	mg/kg	50	0.400	3050/6010B	06/17/2002	6/20/02	SM
Barium	341	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Cadmium	0.280	mg/kg	50	0.050	3050/6010B	06/17/2002	6/20/02	SM
Chromium	2.94	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM
Lead	5.90	mg/kg	50	0.550	3050/6010B	06/17/2002	6/20/02	SM
Selenium	< 0.200	mg/kg	50	0.200	3050/6010B	06/17/2002	6/20/02	SM
Silver	< 0.100	mg/kg	50	0.100	3050/6010B	06/17/2002	6/20/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Total	< 0.100	mg/kg	50	0.100	7471	06/22/2002	6/24/02	SM

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Approval: Roland K. Tuttle 6-26-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-02

Sample ID: BH-8 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	97.5	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-06

Sample ID: BH-8 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	26.6	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-08

Sample ID: BH-9 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	97.5	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-12

Sample ID: BH-9 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	26.6	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-13

Sample ID: BH-10 (0-2')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	33.2	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-17

Sample ID: BH-10 (20-21')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	33.2	mg/kg	1	10	9253	6/15/02	SB

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-18
Sample ID: BH-10 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	29.5	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-20
Sample ID: BH-11 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	44.3	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-24
Sample ID: BH-11 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	44.3	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-26
Sample ID: BH-12 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-28
Sample ID: BH-12 (15-16')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-30
Sample ID: BH-12 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-31
Sample ID: BH-13 (0-2')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	222	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-36
Sample ID: BH-13 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-37
Sample ID: BH-14 (0-6")

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-40
Sample ID: BH-14 (15-16')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-42
Sample ID: BH-14 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-43
Sample ID: BH-15 (0-6")

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-46
Sample ID: BH-15 (15-16')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-48
Sample ID: BH-15 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-49
Sample ID: BH-16 (0-1')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	19.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-54
Sample ID: BH-16 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	19.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-55
Sample ID: BH-17 (0-1')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	19.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203596-58
Sample ID: BH-17 (15-16')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	8.86	mg/kg	1	10	9253	6/15/02	SB

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203596
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203596-60
Sample ID: BH-17 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Approval:

Raland K. Tuttle 6-26-02
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0203596

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0001955-02			<10.0		
TOTAL, C6-C35-mg/kg		0001957-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0203596-06	0	952	1100	115.5%	
TOTAL, C6-C35-mg/kg		0203596-54	0	952	1140	119.7%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0203596-06	0	952	1110	116.6%	0.9%
TOTAL, C6-C35-mg/kg		0203596-54	0	952	1200	126.1%	5.1%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0001955-05		1000	1170	117.7%	
TOTAL, C6-C35-mg/kg		0001957-05		1000	1180	118.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203596

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0001971-02			<0.025		
Benzene-mg/kg		0001987-02			<0.025		
Ethylbenzene-mg/kg		0001971-02			<0.025		
Ethylbenzene-mg/kg		0001987-02			<0.025		
Toluene-mg/kg		0001971-02			<0.025		
Toluene-mg/kg		0001987-02			<0.025		
p/m-Xylene-mg/kg		0001971-02			<0.025		
p/m-Xylene-mg/kg		0001987-02			<0.025		
o-Xylene-mg/kg		0001971-02			<0.025		
o-Xylene-mg/kg		0001987-02			<0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0203596-02	0	0.1	0.102	102.%	
Benzene-mg/kg		0203596-60	0	0.1	0.099	99.%	
Ethylbenzene-mg/kg		0203596-02	0	0.1	0.098	98.%	
Ethylbenzene-mg/kg		0203596-60	0	0.1	0.097	97.%	
Toluene-mg/kg		0203596-02	0	0.1	0.097	97.%	
Toluene-mg/kg		0203596-60	0	0.1	0.093	93.%	
p/m-Xylene-mg/kg		0203596-02	0	0.2	0.195	97.5%	
p/m-Xylene-mg/kg		0203596-60	0	0.2	0.193	96.5%	
o-Xylene-mg/kg		0203596-02	0	0.1	0.096	96.%	
o-Xylene-mg/kg		0203596-60	0	0.1	0.096	96.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0203596-02	0	0.1	0.110	110.%	7.5%
Benzene-mg/kg		0203596-60	0	0.1	0.096	96.%	3.1%
Ethylbenzene-mg/kg		0203596-02	0	0.1	0.107	107.%	8.8%
Ethylbenzene-mg/kg		0203596-60	0	0.1	0.094	94.%	3.1%
Toluene-mg/kg		0203596-02	0	0.1	0.104	104.%	7.%
Toluene-mg/kg		0203596-60	0	0.1	0.092	92.%	1.1%
p/m-Xylene-mg/kg		0203596-02	0	0.2	0.215	107.5%	9.8%
p/m-Xylene-mg/kg		0203596-60	0	0.2	0.190	95.%	1.6%
o-Xylene-mg/kg		0203596-02	0	0.1	0.106	106.%	9.9%
o-Xylene-mg/kg		0203596-60	0	0.1	0.093	93.%	3.2%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0001971-05		0.1	0.102	102.%	
Benzene-mg/kg		0001987-05		0.1	0.100	100.%	
Ethylbenzene-mg/kg		0001971-05		0.1	0.097	97.%	
Ethylbenzene-mg/kg		0001987-05		0.1	0.095	95.%	
Toluene-mg/kg		0001971-05		0.1	0.096	96.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Toluene-mg/kg		0001987-05		0.1	0.094	94.%	
p/m-Xylene-mg/kg		0001971-05		0.2	0.196	98.%	
p/m-Xylene-mg/kg		0001987-05		0.2	0.190	95.%	
o-Xylene-mg/kg		0001971-05		0.1	0.097	97.%	
o-Xylene-mg/kg		0001987-05		0.1	0.095	95.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

METALS RCRA 7 Total

Order#: G0203596

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0002128-02			< 0.40		
Barium-mg/kg		0002128-02			< 0.050		
Cadmium-mg/kg		0002128-02			< 0.050		
Chromium-mg/kg		0002128-02			< 0.10		
Lead-mg/kg		0002128-02			< 0.55		
Selenium-mg/kg		0002128-02			< 0.20		
Silver-mg/kg		0002128-02			< 0.10		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0002128-03		10	10.9	109.%	
Barium-mg/kg		0002128-03		50	50.7	101.4%	
Cadmium-mg/kg		0002128-03		10	9.38	93.8%	
Chromium-mg/kg		0002128-03		50	50.2	100.4%	
Lead-mg/kg		0002128-03		50	50.2	100.4%	
Selenium-mg/kg		0002128-03		10	11.2	112.%	
Silver-mg/kg		0002128-03		50	53.3	106.6%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0002128-04		10	11.3	113.%	3.6%
Barium-mg/kg		0002128-04		50	51.8	103.6%	2.1%
Cadmium-mg/kg		0002128-04		10	9.40	94.%	0.2%
Chromium-mg/kg		0002128-04		50	51.3	102.6%	2.2%
Lead-mg/kg		0002128-04		50	50.4	100.8%	0.4%
Selenium-mg/kg		0002128-04		10	11.4	114.%	1.8%
Silver-mg/kg		0002128-04		50	53.4	106.8%	0.2%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/kg		0002128-05		1	1.01	101.%	
Barium-mg/kg		0002128-05		1	1.06	106.%	
Cadmium-mg/kg		0002128-05		1	0.989	98.9%	
Chromium-mg/kg		0002128-05		1	0.986	98.6%	
Lead-mg/kg		0002128-05		1	0.993	99.3%	
Selenium-mg/kg		0002128-05		1	0.990	99.%	
Silver-mg/kg		0002128-05		0.5	0.522	104.4%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0203596

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0002039-01			<5.00		
Chloride-mg/kg		0002040-01			<5.00		
Mercury, Total-mg/kg		0002170-01			< 0.10		
Mercury, Total-mg/kg		0002173-01			< 0.040		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Total-mg/kg		0002173-02		0.75	0.760	101.3%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Total-mg/kg		0002173-03		0.75	0.720	96.6%	5.4%
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0203588-01	2300	5000	7270	99.4%	
Chloride-mg/kg		0203596-40	17.7	500	523	101.1%	
Mercury, Total-mg/kg		0203596-02	0	1	0.925	92.5%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0203588-01	2300	5000	7360	101.2%	1.2%
Chloride-mg/kg		0203596-40	17.7	500	523	101.1%	0.0%
Mercury, Total-mg/kg		0203596-02	0.925	1	0.875	88.8%	5.6%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0002039-04		5000	5050	101.1%	
Chloride-mg/kg		0002040-04		5000	5050	101.1%	
Mercury, Total-mg/kg		0002170-04		0.75	0.735	98.0%	
Mercury, Total-mg/kg		0002173-04		0.75	0.730	97.3%	

CHAIN—OF—CUSTODY RECORD

CLIENT NAME: Teneco
 PROJECT NO.: 2-0102
 SITE MANAGER: Cindy Crain
 PROJECT NAME: Buckeye Plant

LAB. PO # 4 OF 4
 DATE 12:02 TIME 12:22
 DATE " TIME 12:26
 DATE " TIME 12:31
 DATE " TIME 12:40
 DATE " TIME 12:47
 DATE " TIME 12:53

RECEIVING LABORATORY: Env. Lab of TX
 ADDRESS: 12600 W. I-20E.
 CITY: Odessa STATE: TX ZIP: 79745
 CONTACT: PHONE: 563-1800

PARAMETERS/METHOD NUMBER			NUMBER OF CONTAINERS		SAMPLE IDENTIFICATION		REMARKS	
DATE	TIME	WATER	SOIL	OTHER	TPH 8015 M	As Hg, Cu, Pb, Se	Chlorides	Hold
12:02	12:22	✓	✓		✓	✓	✓	✓
"	12:26	✓	✓		✓	✓	✓	✓
"	12:31	✓	✓		✓	✓	✓	✓
"	12:40	✓	✓		✓	✓	✓	✓
"	12:47	✓	✓		✓	✓	✓	✓
"	12:53	✓	✓		✓	✓	✓	✓

SAMPLED BY: (Signature) Cindy Crain DATE: 12/10/02 TIME: 12:10
 RELINQUISHED BY: (Signature) Cindy Crain DATE: 12/10/02 TIME: 12:15
 RECEIVED BY: (Signature) _____ DATE: _____ TIME: _____
 SAMPLE SHIPPED BY: (Circle) FEDEX ☐ HAND DELIVERED ☐ BUS ☐ AIRBILL # _____ UPS ☐ OTHER: _____
 WHITE - RECEIVING LAB
 YELLOW - RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
 PINK - PROJECT MANAGER
 GOLD - QA/QC COORDINATOR
 SAMPLE TYPE: _____
 LA CONTACT PERSON: _____
 SAMPLE CONDITION WHEN RECEIVED: 3.5°C

ANALYTICAL REPORT

Prepared for:

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Texaco/ Buckeye Plant
Order#: G0203646
Report Date: 06/17/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203646
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0203646-02	MW-1 (5-6')	SOIL	6/10/02	6/13/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203646-09	MW-1 (80-82')	SOIL	6/11/02	6/13/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203646-10	MW-2 (30-31')	SOIL	6/11/02	6/13/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203646-13	MW-2 (80-81')	SOIL	6/11/02	6/13/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203646-15	MW-8 (5-6')	SOIL	6/12/02	6/13/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.5 C		
	8015M					
	Chloride					
0203646-21	MW-8 (60-61')	SOIL	6/12/02	6/13/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.5 C		
	8015M					
	Chloride					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203646
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0203646-23	MW-3 (5-6')	SOIL	6/12/02	6/13/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203646-29	MW-3 (60-61')	SOIL	6/12/02	6/13/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0203646-31	MW-6 (5-6')	SOIL	6/12/02	6/13/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.5 C		
	8015M					
	Chloride					
0203646-37	MW-6 (60-61')	SOIL	6/12/02	6/13/02 8:15	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.5 C		
	8015M					
	Chloride					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203646
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203646-02
Sample ID: MW-1 (5-6')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/14/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	19.9	10.0
TOTAL, C6-C35	19.9	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002053-02		6/15/02 17:51	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203646-09
Sample ID: MW-1 (80-82')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/14/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203646
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203646-09
Sample ID: MW-1 (80-82')

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002053-02		6/15/02 18:13	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203646-10
Sample ID: MW-2 (30-31')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/14/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203646
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203646-10
Sample ID: MW-2 (30-31')

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002053-02		6/15/02 18:35	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203646-13
Sample ID: MW-2 (80-81')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/14/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203646
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203646-13
Sample ID: MW-2 (80-81')

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002053-02		6/15/02 19:48	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	0.026	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203646-15
Sample ID: MW-8 (5-6')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/14/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203646
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203646-21
Sample ID: MW-8 (60-61')

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		6/14/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Lab ID: 0203646-23
Sample ID: MW-3 (5-6')

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		6/14/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0002053-02		6/15/02 20:54	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203646
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203646-29
Sample ID: MW-3 (60-61')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/14/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	48.3	10.0
DRO, >C12-C35	40.9	10.0
TOTAL, C6-C35	89.2	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002053-02		6/15/02 21:16	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	0.039	0.025
Toluene	<0.025	0.025
p/m-Xylene	0.063	0.025
o-Xylene	<0.025	0.025

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203646
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203646-31
Sample ID: MW-6 (5-6')

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		6/14/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Lab ID: 0203646-37
Sample ID: MW-6 (60-61')

8015M

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		6/14/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Approval:

Raland K. Tuttle
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

6-19-02

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203646
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203646-02
Sample ID: MW-1 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203646-09
Sample ID: MW-1 (80-82')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203646-10
Sample ID: MW-2 (30-31')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	12.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203646-13
Sample ID: MW-2 (80-81')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203646-15
Sample ID: MW-8 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	53.2	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203646-21
Sample ID: MW-8 (60-61')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

RL = Reporting Limit N/A = Not Applicable

Page 1 of 2

ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203646
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203646-23
Sample ID: MW-3 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	53.2	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203646-29
Sample ID: MW-3 (60-61')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203646-31
Sample ID: MW-6 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	160	mg/kg	1	10	9253	6/15/02	SB

Lab ID: 0203646-37
Sample ID: MW-6 (60-61')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/15/02	SB

Approval:

Raland K. Tuttle 6-19-02
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0203646

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0002029-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0203646-09	0	952	904	95.0%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0203646-09	0	952	907	95.3%	0.3%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0002029-05		1000	869	86.9%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203646

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0002053-02			<0.025		
Ethylbenzene-mg/kg		0002053-02			<0.025		
Toluene-mg/kg		0002053-02			<0.025		
p/m-Xylene-mg/kg		0002053-02			<0.025		
o-Xylene-mg/kg		0002053-02			<0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0203646-13	0	0.1	0.095	95.0%	
Ethylbenzene-mg/kg		0203646-13	0	0.1	0.093	93.0%	
Toluene-mg/kg		0203646-13	0	0.1	0.090	90.0%	
p/m-Xylene-mg/kg		0203646-13	0.026	0.174	0.188	93.1%	
o-Xylene-mg/kg		0203646-13	0	0.1	0.092	92.0%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0203646-13	0	0.1	0.093	93.0%	2.1%
Ethylbenzene-mg/kg		0203646-13	0	0.1	0.091	91.0%	2.2%
Toluene-mg/kg		0203646-13	0	0.1	0.088	88.0%	2.2%
p/m-Xylene-mg/kg		0203646-13	0.026	0.174	0.184	90.8%	2.2%
o-Xylene-mg/kg		0203646-13	0	0.1	0.090	90.0%	2.2%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0002053-05		0.1	0.105	105.0%	
Ethylbenzene-mg/kg		0002053-05		0.1	0.102	102.0%	
Toluene-mg/kg		0002053-05		0.1	0.100	100.0%	
p/m-Xylene-mg/kg		0002053-05		0.2	0.205	102.5%	
o-Xylene-mg/kg		0002053-05		0.1	0.101	101.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0203646

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0002040-01			<5.00		
Chloride-mg/kg		0002044-01			<5.00		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0203596-40	17.7	500	523	101.1%	
Chloride-mg/kg		0203646-31	160	500	656	99.2%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0203596-40	17.7	500	523	101.1%	0.0%
Chloride-mg/kg		0203646-31	160	500	665	101.1%	1.4%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0002040-04		5000	5050	101.1%	
Chloride-mg/kg		0002044-04		5000	5050	101.1%	

CHAIN—OF—CUSTODY RECORD

LA arson & associates, Inc. Fax: 915-687-0456
Environmental Consultants 915-687-0901
507 N. Marientfeld, Ste. 202 • Midland, TX 79701

LAB. I.D. NUMBER (LAB USE ONLY)
0203046-37

REMARKS
(I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)

PARAMETERS/METHOD NUMBER

NUMBER OF CONTAINERS

SITE MANAGER: *Cindy Crain*

PROJECT NAME: *Buckeye Plant*

CLIENT NAME: *Texas*

PROJECT NO.: *2-0102*

PAGE *3* OF *3* LAB. PO #

SAMPLE IDENTIFICATION

OTHER

SOIL

WATER

TIME

DATE

MW-6 (60-61')

1

6-12-02 10:48

✓

✓

11/9/1

TRH 8015M

BTEX 8021B

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TRH 8015M

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TRH 8015M

ANALYTICAL REPORT

Prepared for:

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Texaco/ Buckeye Plant
Order#: G0203672
Report Date: 06/20/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203672
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

Lab ID:	Sample :	Matrix:	Date / Time	Date / Time	Container	Preservative
			Collected	Received		
0203672-03	MW-7 (10-11')	SOIL	6/13/02 10:21	6/14/02 15:30	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX Chloride	Rejected: No		Temp: 4.0 C		
0203672-08	MW-7 (60-61')	SOIL	6/13/02 11:49	6/14/02 15:30	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M Chloride	Rejected: No		Temp: 4.0 C		
0203672-13	MW-4 (20-21')	SOIL	6/13/02 14:34	6/14/02 15:30	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX Chloride	Rejected: No		Temp: 4.0 C		
0203672-16	MW-4 (60-61')	SOIL	6/13/02 15:50	6/14/02 15:30	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M Chloride	Rejected: No		Temp: 4.0 C		
0203672-18	MW-5 (5-6')	SOIL	6/14/02 8:30	6/14/02 15:30	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX Chloride	Rejected: No		Temp: 4.0 C		
0203672-24	MW-5 (60-61')	SOIL	6/14/02 9:49	6/14/02 15:30	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M Chloride	Rejected: No		Temp: 4.0 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: 60203672
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203672-03
Sample ID: MW-7 (10-11')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/17/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002079-02		6/18/02 15:07	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Lab ID: 0203672-08
Sample ID: MW-7 (60-61')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/17/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 4

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203672
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203672-13
Sample ID: MW-4 (20-21')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/17/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002079-02		6/18/02 15:29	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203672
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203672-16
Sample ID: MW-4 (60-61')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/17/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Lab ID: 0203672-18
Sample ID: MW-5 (5-6')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/17/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/18/02 15:51	1	1	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203672
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203672-24
Sample ID: MW-5 (60-61')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/17/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Approval:

Raland K Tuttle 6-20-02

Raland K. Tuttle, Lab Director, QA Officer

Date

Celey D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203672
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0203672-03
Sample ID: MW-7 (10-11')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	<10.0	mg/kg	1	10	9253	6/20/02	SB

Lab ID: 0203672-08
Sample ID: MW-7 (60-61')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	17.7	mg/kg	1	10	9253	6/20/02	SB

Lab ID: 0203672-13
Sample ID: MW-4 (20-21')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	3690	mg/kg	1	10	9253	6/20/02	SB

Lab ID: 0203672-16
Sample ID: MW-4 (60-61')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	4960	mg/kg	1	10	9253	6/20/02	SB

Lab ID: 0203672-18
Sample ID: MW-5 (5-6')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	35.4	mg/kg	1	10	9253	6/20/02	SB

Lab ID: 0203672-24
Sample ID: MW-5 (60-61')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	<10.0	mg/kg	1	10	9253	6/20/02	SB

RL = Reporting Limit N/A = Not Applicable

Page 1 of 2

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203672
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Approval: Raland K. Tuttle 6-21-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0203672

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0002074-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0203681-01	0	952	827	86.9%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0203681-01	0	952	840	88.2%	1.6%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0002074-05		1000	878	87.8%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203672

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0002079-02			<0.025		
Ethylbenzene-mg/kg		0002079-02			<0.025		
Toluene-mg/kg		0002079-02			<0.025		
p/m-Xylene-mg/kg		0002079-02			<0.025		
o-Xylene-mg/kg		0002079-02			<0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0203669-06	0	0.1	0.108	108.%	
Ethylbenzene-mg/kg		0203669-06	0	0.1	0.105	105.%	
Toluene-mg/kg		0203669-06	0	0.1	0.104	104.%	
p/m-Xylene-mg/kg		0203669-06	0	0.2	0.213	106.5%	
o-Xylene-mg/kg		0203669-06	0	0.1	0.104	104.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0203669-06	0	0.1	0.099	99.%	8.7%
Ethylbenzene-mg/kg		0203669-06	0	0.1	0.091	91.%	14.3%
Toluene-mg/kg		0203669-06	0	0.1	0.092	92.%	12.2%
p/m-Xylene-mg/kg		0203669-06	0	0.2	0.185	92.5%	14.1%
o-Xylene-mg/kg		0203669-06	0	0.1	0.091	91.%	13.3%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0002079-05		0.1	0.099	99.%	
Ethylbenzene-mg/kg		0002079-05		0.1	0.096	96.%	
Toluene-mg/kg		0002079-05		0.1	0.094	94.%	
p/m-Xylene-mg/kg		0002079-05		0.2	0.195	97.5%	
o-Xylene-mg/kg		0002079-05		0.1	0.095	95.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0203672

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0002092-01			<5.00		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0203672-03	8.86	500	514	101.0%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0203672-03	8.86	500	514	101.0%	0.0%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0002092-04		5000	5050	101.0%	

CHAIN-OF-CUSTODY RECORD

CLIENT NAME: Texaco
PROJECT NO.: 2-0102
SITE MANAGER: Cindy Crain
PROJECT NAME: Buckeye Plant
LAB. PO #

LAB. I.D. NUMBER (LAB USE ONLY)
REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)

PARAMETERS/METHOD NUMBER
NUMBER OF CONTAINERS

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	LAB. PO #
4/13/02	1010				MW-7 (0-1')	1
"	1018				MW-7 (5-6')	1
"	1021				MW-7 (10-11')	1
"	1050				MW-7 (15-16')	1
"	1120				MW-7 (20-21')	1
"	1130				MW-7 (30-31')	1
"	1140				MW-7 (40-41')	1
"	1149				MW-7 (60-61')	1
"	1415				MW-4 (0-1')	1
"	1421				MW-4 (5-6')	1
"	1426				MW-4 (10-11')	1
"	1429				MW-4 (15-16')	1
"	1434				MW-4 (20-21')	1
"	1447				MW-4 (30-31')	1
"	1535				MW-4 (40-41')	1
"	1550				MW-4 (60-61')	1
4/14/02	0824				MW-5 (0-1')	1
"	0830				MW-5 (5-6')	1

SAMPLED BY: (Signature) Cindy Crain **DATE:** 4/14/02 **TIME:** 1103
RELINQUISHED BY: (Signature) Cindy Crain **DATE:** 4/14/02 **TIME:** 1550
RECEIVED BY: (Signature) Cindy Crain **DATE:** 4/14/02 **TIME:** 1550

COMMENTS:
TURNAROUND TIME NEEDED
RECEIVING LABORATORY: Environmental Lab of Texas **RECEIVED BY:** (Signature) Cindy Crain
ADDRESS: 507 N. Marienfeld, Ste. 202 • Midland, TX 79701
CITY: Midland **STATE:** TX **ZIP:** 79701 **DATE:** 4/14/02 **TIME:** 15130
CONTACT: LA CONTACT PERSON:

SAMPLE CONDITION WHEN RECEIVED: 4°C
SAMPLE TYPE:

RECEIVED BY: (Signature) Cindy Crain **DATE:** 4/14/02 **TIME:** 1550
FEDEX **BUS** **AIRBILL #:**
HAND DELIVERED **UPS** **OTHER:**
WHITE - RECEIVING LAB
YELLOW - RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK - PROJECT MANAGER
GOLD - QA/QC COORDINATOR

ANALYTICAL REPORT

Prepared for:

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Texaco/ Buckeye
Order#: G0203727
Report Date: 07/01/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0203727-01	MW-1	WATER	6/19/02 13:34	6/21/02 9:20	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					
	Total Dissolved Solids (TDS)					
0203727-02	MW-2	WATER	6/19/02 14:16	6/21/02 9:20	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					
	Total Dissolved Solids (TDS)					
0203727-03	MW-3	WATER	6/20/02 11:15	6/21/02 9:20	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					
	Total Dissolved Solids (TDS)					
0203727-04	MW-4	WATER	6/20/02 13:52	6/21/02 9:20	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
	Total Dissolved Solids (TDS)					
0203727-05	MW-5	WATER	6/20/02 15:09	6/21/02 9:20	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					
	Total Dissolved Solids (TDS)					
0203727-06	MW-6	WATER	6/20/02 12:04	6/21/02 9:20	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					
	Total Dissolved Solids (TDS)					
0203727-07	MW-7	WATER	6/20/02 13:00	6/21/02 9:20	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	METALS RCRA 7 Dissolved					
	Mercury, Dissolved					
	Total Dissolved Solids (TDS)					
0203727-08	MW-8	WATER	6/20/02 10:02	6/21/02 9:20	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8021B/5030 BTEX					
	Anions					
	Cations					
	METALS RCRA 7 Dissolved					

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.

P.O. BOX 50685

MIDLAND, TX 79710

915-687-0456

Order#: G0203727

Project: 2-0102

Project Name: Texaco/ Buckeye

Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
	Mercury, Dissolved					
	Total Dissolved Solids (TDS)					
0203727-09	Dup-1	WATER	6/20/02	6/21/02 9:20	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 2.0 C		
	8021B/5030 BTEX					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-01
Sample ID: MW-1

8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0002165-02		6/23/02 14:05	1	10	CK	8021B

Parameter	Result mg/L	RL
Benzene	1.74	0.010
Ethylbenzene	<0.010	0.010
Toluene	0.024	0.010
p/m-Xylene	<0.010	0.010
o-Xylene	<0.010	0.010

Lab ID: 0203727-02
Sample ID: MW-2

8021B/5030 BTEX

<u>Method</u> <u>Blank</u>	<u>Date</u> <u>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Sample</u> <u>Amount</u>	<u>Dilution</u> <u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0002165-02		6/23/02 14:28	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	1.15	0.005
Ethylbenzene	0.009	0.005
Toluene	<0.005	0.005
p/m-Xylene	0.008	0.005
o-Xylene	<0.005	0.005

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: 0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-03
Sample ID: MW-3

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002165-02		6/23/02 14:50	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	1.05	0.005
Ethylbenzene	0.345	0.005
Toluene	0.739	0.005
p/m-Xylene	0.300	0.005
o-Xylene	0.116	0.005

Lab ID: 0203727-04
Sample ID: MW-4

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002165-02		6/23/02 15:11	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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MIDLAND, TX 79710

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-05

Sample ID: MW-5

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0002183-02		6/23/02 19:40	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.002	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Lab ID: 0203727-06

Sample ID: MW-6

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0002183-02		6/23/02 20:02	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.444	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

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ANALYTICAL REPORT

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MIDLAND, TX 79710

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-07
Sample ID: MW-7

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002183-02		6/23/02 20:24	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Lab ID: 0203727-08
Sample ID: MW-8

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002183-02		6/24/02 15:34	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	1.23	0.005
Ethylbenzene	0.046	0.005
Toluene	<0.005	0.005
p/m-Xylene	0.021	0.005
o-Xylene	<0.005	0.005

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ANALYTICAL REPORT

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MIDLAND, TX 79710

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-09
Sample ID: Dup-1

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0002183-02		6/24/02 18:42	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	1.90	0.005
Ethylbenzene	0.075	0.005
Toluene	<0.005	0.005
p/m-Xylene	0.033	0.005
o-Xylene	<0.005	0.005

Approval: *Raland K Tuttle* 7-08-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
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P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-01

Sample ID: MW-1

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Calcium	87.6	mg/L	10	0.10	7140		6/26/02	CK
Magnesium	17.4	mg/L	10	0.010	7460		6/26/02	CK
Potassium	6.2	mg/L	1	0.050	7610		6/26/02	CK
Sodium	41.0	mg/L	10	0.10	7770		7/1/02	MB

METALS RCRA 7 Dissolved

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	<0.008	mg/L	1	0.008	6010B	06/22/2002	6/25/02	SM
Barium	0.131	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Chromium	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM
Lead	<0.011	mg/L	1	0.011	6010B	06/22/2002	6/25/02	SM
Selenium	<0.004	mg/L	1	0.004	6010B	06/22/2002	6/25/02	SM
Silver	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Dissolved	<0.002	mg/L	1	0.002	7470	06/21/2002	6/21/02	SM

Lab ID: 0203727-02

Sample ID: MW-2

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Calcium	79.7	mg/L	10	0.10	7140		6/26/02	CK
Magnesium	14.3	mg/L	10	0.010	7460		6/26/02	CK
Potassium	3.72	mg/L	1	0.050	7610		6/26/02	CK
Sodium	24.0	mg/L	10	0.10	7770		7/1/02	MB

METALS RCRA 7 Dissolved

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	<0.008	mg/L	1	0.008	6010B	06/22/2002	6/25/02	SM
Barium	0.254	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Chromium	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM
Lead	<0.011	mg/L	1	0.011	6010B	06/22/2002	6/25/02	SM
Selenium	<0.004	mg/L	1	0.004	6010B	06/22/2002	6/25/02	SM
Silver	0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Dissolved	<0.002	mg/L	1	0.002	7470	06/21/2002	6/28/02	SM

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
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P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-02
Sample ID: MW-2

Lab ID: 0203727-03
Sample ID: MW-3

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Calcium	45.4	mg/L	10	0.10	7140		6/26/02	CK
Magnesium	8.9	mg/L	10	0.010	7460		6/26/02	CK
Potassium	3.57	mg/L	1	0.050	7610		6/26/02	CK
Sodium	41.0	mg/L	10	0.10	7770		7/1/02	MB

METALS RCRA 7 Dissolved

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	0.009	mg/L	1	0.008	6010B	06/22/2002	6/25/02	SM
Barium	0.194	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Chromium	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM
Lead	<0.011	mg/L	1	0.011	6010B	06/22/2002	6/25/02	SM
Selenium	0.006	mg/L	1	0.004	6010B	06/22/2002	6/25/02	SM
Silver	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Dissolved	<0.002	mg/L	1	0.002	7470	06/21/2002	6/28/02	SM

Lab ID: 0203727-04
Sample ID: MW-4

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Calcium	83.6	mg/L	10	0.10	7140		6/26/02	CK
Magnesium	16.8	mg/L	10	0.010	7460		6/26/02	CK
Potassium	5.05	mg/L	1	0.050	7610		6/26/02	CK
Sodium	61.0	mg/L	10	0.10	7770		7/1/02	MB

METALS RCRA 7 Dissolved

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	<0.008	mg/L	1	0.008	6010B	06/22/2002	6/25/02	SM
Barium	0.219	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Chromium	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM
Lead	<0.011	mg/L	1	0.011	6010B	06/22/2002	6/25/02	SM
Selenium	<0.004	mg/L	1	0.004	6010B	06/22/2002	6/25/02	SM
Silver	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
 LARSON AND ASSOCIATES, INC.
 P.O. BOX 50685
 MIDLAND, TX 79710

Order#: G0203727
 Project: 2-0102
 Project Name: Texaco/ Buckeye
 Location: None Given

Lab ID: 0203727-04
 Sample ID: MW-4

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Dissolved	<0.002	mg/L	1	0.002	7470	06/21/2002	6/28/02	SM

Lab ID: 0203727-05
 Sample ID: MW-5

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Calcium	71.6	mg/L	10	0.10	7140		6/26/02	CK
Magnesium	12.4	mg/L	10	0.010	7460		6/26/02	CK
Potassium	4.91	mg/L	1	0.050	7610		6/26/02	CK
Sodium	68.0	mg/L	10	0.10	7770		7/1/02	MB

METALS RCRA 7 Dissolved

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	<0.008	mg/L	1	0.008	6010B	06/22/2002	6/25/02	SM
Barium	0.209	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Chromium	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM
Lead	<0.011	mg/L	1	0.011	6010B	06/22/2002	6/25/02	SM
Selenium	<0.004	mg/L	1	0.004	6010B	06/22/2002	6/25/02	SM
Silver	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Dissolved	<0.002	mg/L	1	0.002	7470	06/21/2002	6/28/02	SM

Lab ID: 0203727-06
 Sample ID: MW-6

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Calcium	41.3	mg/L	10	0.10	7140		6/26/02	CK
Magnesium	7.7	mg/L	10	0.010	7460		6/26/02	CK
Potassium	3.19	mg/L	1	0.050	7610		6/26/02	CK
Sodium	36.0	mg/L	10	0.10	7770		7/1/02	MB

METALS RCRA 7 Dissolved

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	<0.008	mg/L	1	0.008	6010B	06/22/2002	6/25/02	SM
Barium	0.182	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM

N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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MIDLAND, TX 79710

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-06

Sample ID: MW-6

METALS RCRA 7 Dissolved

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chromium	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM
Lead	<0.011	mg/L	1	0.011	6010B	06/22/2002	6/25/02	SM
Selenium	<0.004	mg/L	1	0.004	6010B	06/22/2002	6/25/02	SM
Silver	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Dissolved	<0.002	mg/L	1	0.002	7470	06/21/2002	6/28/02	SM

Lab ID: 0203727-07

Sample ID: MW-7

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Calcium	37.2	mg/L	10	0.10	7140		6/26/02	CK
Magnesium	7.3	mg/L	10	0.010	7460		6/26/02	CK
Potassium	3.63	mg/L	1	0.050	7610		6/26/02	CK
Sodium	51.0	mg/L	10	0.10	7770		7/1/02	MB

METALS RCRA 7 Dissolved

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Arsenic	<0.008	mg/L	1	0.008	6010B	06/22/2002	6/25/02	SM
Barium	0.140	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Chromium	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM
Lead	<0.011	mg/L	1	0.011	6010B	06/22/2002	6/25/02	SM
Selenium	<0.004	mg/L	1	0.004	6010B	06/22/2002	6/25/02	SM
Silver	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Mercury, Dissolved	<0.002	mg/L	1	0.002	7470	06/21/2002	6/28/02	SM

Lab ID: 0203727-08

Sample ID: MW-8

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Calcium	57.8	mg/L	10	0.10	7140		6/26/02	CK
Magnesium	11.9	mg/L	10	0.010	7460		6/26/02	CK
Potassium	2.85	mg/L	1	0.050	7610		6/26/02	CK

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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MIDLAND, TX 79710

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-08

Sample ID: MW-8

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Sodium	21.0	mg/L	10	0.10	7770		7/1/02	MB

METALS RCRA 7 Dissolved

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Arsenic	<0.008	mg/L	1	0.008	6010B	06/22/2002	6/25/02	SM
Barium	0.650	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Cadmium	<0.001	mg/L	1	0.001	6010B	06/22/2002	6/25/02	SM
Chromium	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM
Lead	<0.011	mg/L	1	0.011	6010B	06/22/2002	6/25/02	SM
Selenium	<0.004	mg/L	1	0.004	6010B	06/22/2002	6/25/02	SM
Silver	<0.002	mg/L	1	0.002	6010B	06/22/2002	6/25/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Mercury, Dissolved	<0.002	mg/L	1	0.002	7470	06/21/2002	6/28/02	SM

Approval: Raland K. Tuttle 7-08-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-01
Sample ID: MW-1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	262	mg/L	1	2.00	310.1	6/21/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
Chloride	97.5	mg/L	1	5.00	9253	6/23/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
SULFATE, 375.4	46.6	mg/L	1	0.5	375.4	6/25/02	CC

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	458	mg/L	1	5.0	160.1	6/23/02	SB

Lab ID: 0203727-02
Sample ID: MW-2

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	220	mg/L	1	2.00	310.1	6/21/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
Chloride	88.6	mg/L	1	5.00	9253	6/23/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
SULFATE, 375.4	26.6	mg/L	1	0.5	375.4	6/25/02	CC

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	509	mg/L	1	5.0	160.1	6/25/02	SB

Lab ID: 0203727-03
Sample ID: MW-3

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	177	mg/L	1	2.00	310.1	6/21/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
Chloride	56.1	mg/L	1	5.00	9253	6/23/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
SULFATE, 375.4	54.7	mg/L	1	0.5	375.4	6/25/02	CC

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	335	mg/L	1	5.0	160.1	6/25/02	SB

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-04

Sample ID: MW-4

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	216	mg/L	1	2.00	310.1	6/21/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
Chloride	142	mg/L	1	5.00	9253	6/23/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
SULFATE, 375.4	62.5	mg/L	1	0.5	375.4	6/25/02	CC

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	588	mg/L	1	5.0	160.1	6/25/02	SB

Lab ID: 0203727-05

Sample ID: MW-5

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	160	mg/L	1	2.00	310.1	6/21/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
Chloride	160	mg/L	1	5.00	9253	6/23/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
SULFATE, 375.4	57.6	mg/L	1	0.5	375.4	6/25/02	CC

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	521	mg/L	1	5.0	160.1	6/25/02	SB

Lab ID: 0203727-06

Sample ID: MW-6

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	180	mg/L	1	2.00	310.1	6/21/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
Chloride	28.4	mg/L	1	5.00	9253	6/23/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
SULFATE, 375.4	41.	mg/L	1	0.5	375.4	6/25/02	CC

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	329	mg/L	1	5.0	160.1	6/25/02	SB

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0203727
Project: 2-0102
Project Name: Texaco/ Buckeye
Location: None Given

Lab ID: 0203727-07

Sample ID: MW-7

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	182	mg/L	1	2.00	310.1	6/21/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
Chloride	31.9	mg/L	1	5.00	9253	6/23/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
SULFATE, 375.4	43.4	mg/L	1	0.5	375.4	6/25/02	CC

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	337	mg/L	1	5.0	160.1	6/25/02	SB

Lab ID: 0203727-08

Sample ID: MW-8

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	230	mg/L	1	2.00	310.1	6/21/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
Chloride	31.9	mg/L	1	5.00	9253	6/23/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	6/21/02	SB
SULFATE, 375.4	26.2	mg/L	1	0.5	375.4	6/25/02	CC

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	359	mg/L	1	5.0	160.1	6/25/02	SB

Approval: Raland K. Tuttle 7-08-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203727

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0002165-02			<0.001		
Benzene-mg/L		0002183-02			<0.001		
Ethylbenzene-mg/L		0002165-02			<0.001		
Ethylbenzene-mg/L		0002183-02			<0.001		
Toluene-mg/L		0002165-02			<0.001		
Toluene-mg/L		0002183-02			<0.001		
p/m-Xylene-mg/L		0002165-02			<0.001		
p/m-Xylene-mg/L		0002183-02			<0.001		
o-Xylene-mg/L		0002165-02			<0.001		
o-Xylene-mg/L		0002183-02			<0.001		
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0203725-01	0.022	0.1	0.135	113.%	
Benzene-mg/L		0203734-13	0.065	0.1	0.183	118.%	
Ethylbenzene-mg/L		0203725-01	0.003	0.1	0.112	109.%	
Ethylbenzene-mg/L		0203734-13	0.011	0.1	0.125	114.%	
Toluene-mg/L		0203725-01	0	0.1	0.109	109.%	
Toluene-mg/L		0203734-13	0	0.1	0.108	108.%	
p/m-Xylene-mg/L		0203725-01	0.003	0.2	0.223	110.%	
p/m-Xylene-mg/L		0203734-13	0	0.2	0.225	112.5%	
o-Xylene-mg/L		0203725-01	0	0.1	0.110	110.%	
o-Xylene-mg/L		0203734-13	0	0.1	0.114	114.%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0203725-01	0.022	0.1	0.134	112.%	0.7%
Benzene-mg/L		0203734-13	0.065	0.1	0.175	110.%	4.5%
Ethylbenzene-mg/L		0203725-01	0.003	0.1	0.115	112.%	2.6%
Ethylbenzene-mg/L		0203734-13	0.011	0.1	0.124	113.%	0.8%
Toluene-mg/L		0203725-01	0	0.1	0.111	111.%	1.8%
Toluene-mg/L		0203734-13	0	0.1	0.109	109.%	0.9%
p/m-Xylene-mg/L		0203725-01	0.003	0.2	0.227	112.%	1.8%
p/m-Xylene-mg/L		0203734-13	0	0.2	0.222	111.%	1.3%
o-Xylene-mg/L		0203725-01	0	0.1	0.113	113.%	2.7%
o-Xylene-mg/L		0203734-13	0	0.1	0.112	112.%	1.8%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0002165-05		0.1	0.109	109.%	
Benzene-mg/L		0002183-05		0.1	0.105	105.%	
Ethylbenzene-mg/L		0002165-05		0.1	0.107	107.%	
Ethylbenzene-mg/L		0002183-05		0.1	0.104	104.%	
Toluene-mg/L		0002165-05		0.1	0.108	108.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

SRM	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Toluene-mg/L		0002183-05		0.1	0.104	104.%	
p/m-Xylene-mg/L		0002165-05		0.2	0.216	108.%	
p/m-Xylene-mg/L		0002183-05		0.2	0.213	106.5%	
o-Xylene-mg/L		0002165-05		0.1	0.106	106.%	
o-Xylene-mg/L		0002183-05		0.1	0.105	105.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0203727

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0002154-01			<2.00	
Carbonate Alkalinity-mg/L		0002153-01			<0.10	
Chloride-mg/L		0002147-01			<5.00	
Hydroxide Alkalinity-mg/L		0002155-01			<0.10	
SULFATE, 375.4-mg/L		0002177-01			<0.5	
CONTROL						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0002154-02		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0002153-02		0.05	0.0496	99.2%
Chloride-mg/L		0002147-02		5000	5050	101.1%
Hydroxide Alkalinity-mg/L		0002155-02		0.05	0.0496	99.2%
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0203727-01	262		263	0.4%
Carbonate Alkalinity-mg/L		0203727-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0203727-01	0		<0.10	0.0%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Chloride-mg/L		0203727-01	97.5	250	350	101.1%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Chloride-mg/L		0203727-01	97.5	250	346	99.4%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
SULFATE, 375.4-mg/L		0002177-04		50	47.9	95.8%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0203727

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0002262-02			<0.010		
Magnesium-mg/L		0002262-02			<0.001		
Potassium-mg/L		0002262-02			<0.050		
Sodium-mg/L		0002262-02			<0.010		
CONTROL							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0002262-03		10	9.7	97.0%	
Magnesium-mg/L		0002262-03		5	4.9	98.0%	
Potassium-mg/L		0002262-03		10	9.2	92.0%	
Sodium-mg/L		0002262-03		5	5.0	100.0%	
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0203734-11	136		140		2.9%
Magnesium-mg/L		0203734-11	146		140		4.2%
Potassium-mg/L		0203734-11	43.1		43		0.2%
Sodium-mg/L		0203734-11	1310		1300		0.8%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0002262-05		10	9.7	97.0%	
Magnesium-mg/L		0002262-05		5	4.9	98.0%	
Potassium-mg/L		0002262-05		10	9.9	99.0%	
Sodium-mg/L		0002262-05		5	5.3	106.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

METALS RCRA 7 Dissolved

Order#: G0203727

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/L		0002229-02			<0.008		
Barium-mg/L		0002229-02			<0.001		
Cadmium-mg/L		0002229-02			<0.001		
Chromium-mg/L		0002229-02			<0.002		
Lead-mg/L		0002229-02			<0.011		
Selenium-mg/L		0002229-02			<0.004		
Silver-mg/L		0002229-02			<0.002		
CONTROL							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/L		0002229-03		0.2	0.224	112.%	
Barium-mg/L		0002229-03		1	1.10	110.%	
Cadmium-mg/L		0002229-03		0.2	0.216	108.%	
Chromium-mg/L		0002229-03		1	0.977	97.7%	
Lead-mg/L		0002229-03		1	1.01	101.%	
Selenium-mg/L		0002229-03		0.2	0.220	110.%	
Silver-mg/L		0002229-03		1	0.935	93.5%	
CONTROL DUP							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/L		0002229-04		0.2	0.229	114.5%	2.2%
Barium-mg/L		0002229-04		1	1.09	109.%	0.9%
Cadmium-mg/L		0002229-04		0.2	0.220	110.%	1.8%
Chromium-mg/L		0002229-04		1	0.972	97.2%	0.5%
Lead-mg/L		0002229-04		1	1.03	103.%	2.%
Selenium-mg/L		0002229-04		0.2	0.219	109.5%	0.5%
Silver-mg/L		0002229-04		1	0.932	93.2%	0.3%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Arsenic-mg/L		0002229-05		1	1.05	105.%	
Barium-mg/L		0002229-05		1	1.09	109.%	
Cadmium-mg/L		0002229-05		1	1.03	103.%	
Chromium-mg/L		0002229-05		1	1.02	102.%	
Lead-mg/L		0002229-05		1	1.02	102.%	
Selenium-mg/L		0002229-05		1	1.06	106.%	
Silver-mg/L		0002229-05		0.5	0.478	95.6%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0203727

BLANK						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Dissolved-mg/L	0002221-01			<0.002		
Total Dissolved Solids (TDS)-mg/L	0002142-01			<5.00		
Total Dissolved Solids (TDS)-mg/L	0002247-01			<5.00		
CONTROL						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Dissolved-mg/L	0002221-02		0.03	0.028	93.3%	
CONTROL DUP						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Dissolved-mg/L	0002221-03		0.03	0.027	90.0%	3.6%
DUPLICATE						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0203727-02	509		476		6.7%
Total Dissolved Solids (TDS)-mg/L	0203734-01	6880		6900		0.3%
SRM						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Mercury, Dissolved-mg/L	0002221-04		0.015	0.016	106.7%	

CLIENT NAME:	SITE MANAGER:
--------------	---------------

Laarson & 
ssociates, Inc. Fax: 915-687-0456
Environmental Consultants 915-687-0901

507 N. Marjinfeld Ste. 202 • Midland, TX 79701

1. LATTICES
dissolved

Texaco	PROJECT NO.:	2-0102
Cindy Crain	PROJECT NAME:	Buckeye

LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
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TDS
Metals
BTEX

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF
------	------	-------	------	-------	-----------------------	-----------

2203727-01		500 mL - H ₂ O ₃
	02	VGA - HCL
	03	Waters - F: H ₂ O ₂ (500 mL)

[illegible]

Time	Y	Wavelength	Wavelength
1:34	Y	W-1	A
2:16	Y	W-2	Y
2:16	Y	W-3	Y

04	1 liter - unpreserved
05	
06	

[illegible]

1	1.10	1	1.10
2	2.00	2	2.00
3	3.00	3	3.00
4	4.00	4	4.00
5	5.00	5	5.00
6	6.00	6	6.00
7	7.00	7	7.00
8	8.00	8	8.00
9	9.00	9	9.00
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89	89.00	89	89.00
90	90.00	90	90.00
91	91.00	91	91.00
92	92.00	92	

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09	

[illegible]

20:01	20:02	20:03	20:04	20:05	20:06	20:07	20:08	20:09	20:10	20:11	20:12	20:13	20:14	20:15	20:16	20:17	20:18	20:19	20:20	20:21	20:22	20:23	20:24	20:25	20:26	20:27	20:28	20:29	20:30	20:31	20:32	20:33	20:34	20:35	20:36	20:37	20:38	20:39	20:40	20:41	20:42	20:43	20:44	20:45	20:46	20:47	20:48	20:49	20:50	20:51	20:52	20:53	20:54	20:55	20:56	20:57	20:58	20:59	21:00	21:01	21:02	21:03	21:04	21:05	21:06	21:07	21:08	21:09	21:10	21:11	21:12	21:13	21:14	21:15	21:16	21:17	21:18	21:19	21:20	21:21	21:22	21:23	21:24	21:25	21:26	21:27	21:28	21:29	21:30	21:31	21:32	21:33	21:34	21:35	21:36	21:37	21:38	21:39	21:40	21:41	21:42	21:43	21:44	21:45	21:46	21:47	21:48	21:49	21:50	21:51	21:52	21:53	21:54	21:55	21:56	21:57	21:58	21:59	22:00	22:01	22:02	22:03	22:04	22:05	22:06	22:07	22:08	22:09	22:10	22:11	22:12	22:13	22:14	22:15	22:16	22:17	22:18	22:19	22:20	22:21	22:22	22:23	22:24	22:25	22:26	22:27	22:28	22:29	22:30	22:31	22:32	22:33	22:34	22:35	22:36	22:37	22:38	22:39	22:40	22:41	22:42	22:43	22:44	22:45	22:46	22:47	22:48	22:49	22:50	22:51	22:52	22:53	22:54	22:55	22:56	22:57	22:58	22:59	23:00	23:01	23:02	23:03	23:04	23:05	23:06	23:07	23:08	23:09	23:10	23:11	23:12	23:13	23:14	23:15	23:16	23:17	23:18	23:19	23:20	23:21	23:22	23:23	23:24	23:25	23:26	23:27	23:28	23:29	23:30	23:31	23:32	23:33	23:34	23:35	23:36	23:37	23:38	23:39	23:40	23:41	23:42	23:43	23:44	23:45	23:46	23:47	23:48	23:49	23:50	23:51	23:52	23:53	23:54	23:55	23:56	23:57	23:58	23:59	00:00	00:01	00:02	00:03	00:04	00:05	00:06	00:07	00:08	00:09	00:10	00:11	00:12	00:13	00:14	00:15	00:16	00:17	00:18	00:19	00:20	00:21	00:22	00:23	00:24	00:25	00:26	00:27	00:28	00:29	00:30	00:31	00:32	00:33	00:34	00:35	00:36	00:37	00:38	00:39	00:40	00:41	00:42	00:43	00:44	00:45	00:46	00:47	00:48	00:49	00:50	00:51	00:52	00:53	00:54	00:55	00:56	00:57	00:58	00:59	01:00	01:01	01:02	01:03	01:04	01:05	01:06	01:07	01:08	01:09	01:10	01:11	01:12	01:13	01:14	01:15	01:16	01:17	01:18	01:19	01:20	01:21	01:22	01:23	01:24	01:25	01:26	01:27	01:28	01:29	01:30	01:31	01:32	01:33	01:34	01:35	01:36	01:37	01:38	01:39	01:40	01:41	01:42	01:43	01:44	01:45	01:46	01:47	01:48	01:49	01:50	01:51	01:52	01:53	01:54	01:55	01:56	01:57	01:58	01:59	02:00	02:01	02:02	02:03	02:04	02:05	02:06	02:07	02:08	02:09	02:10	02:11	02:1
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[illegible][illegible][illegible][illegible][illegible]

[illegible][illegible]

RECEIVED BY: (Signature) DATE: TIME:

DATE: 6-21-82
TIME: 9:16

SAMPLED BY: (Signature) <i>K. J. Pen</i>	DATE: <i>6-21-02</i> TIME: <i>9:10</i>	RELINQUISHED BY: (Signature) <i>K. J. Pen</i>
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EX BUS AIRBILL #: _____
 AND DELIVERED UPS OTHER: _____

TIME: _____	TURNAROUND TIME NEEDED
-------------	------------------------

COMMENTS: _____

LOW -- RECEIVING LAB (TO BE RETURNED TO
LA AFTER RECEIPT)
K -- PROJECT MANAGER

Y: (Signature)

RECEIVING LABORATORY: Env. Lab of TX RECEIVED _____
ADDRESS: 12600 W-120 E _____

AMPLE TYPE:

ACT PERSON: 556 8665

CONTACT: _____ PHONE: 563-1800

SAMPLE CONDITION WHEN RECEIVED: 2.0°C

ANALYTICAL REPORT

Prepared for:

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Texaco/ Buckeye Plant

PO#:

Order#: G0204070

Report Date: 08/01/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0204070
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0204070-01	TW-14	WATER	7/29/02 18:30	7/30/02 16:30	40 ml glass	Ice, HCl
<u>Lab Testing:</u>		Rejected: No	Temp: 3.5 C			
8021B/5030 BTEX						
0204070-02	TW-11	WATER	7/29/02 20:05	7/30/02 16:30	40 ml glass	Ice, HCl
<u>Lab Testing:</u>		Rejected: No	Temp: 3.5 C			
8021B/5030 BTEX						
0204070-03	TW-13	WATER	7/30/02 10:20	7/30/02 16:30	40 ml glass	Ice, HCl
<u>Lab Testing:</u>		Rejected: No	Temp: 3.5 C			
8021B/5030 BTEX						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204070
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0204070-01
Sample ID: TW-14

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002646-02		7/31/02 21:24	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Lab ID: 0204070-02
Sample ID: TW-11

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002646-02		7/31/02 22:30	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Cindy Crain
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0204070
Project: 2-0102
Project Name: Texaco/ Buckeye Plant
Location: None Given

Lab ID: 0204070-03
Sample ID: TW-13

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002646-02		7/31/02 22:52	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Approval: Raland K Tuttle 8-05-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204070

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0002646-02			<0.001	
Ethylbenzene-mg/L		0002646-02			<0.001	
Toluene-mg/L		0002646-02			<0.001	
p/m-Xylene-mg/L		0002646-02			<0.001	
o-Xylene-mg/L		0002646-02			<0.001	
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0204070-01	0	0.1	0.092	92.%
Ethylbenzene-mg/L		0204070-01	0	0.1	0.096	96.%
Toluene-mg/L		0204070-01	0	0.1	0.095	95.%
p/m-Xylene-mg/L		0204070-01	0	0.2	0.198	99.%
o-Xylene-mg/L		0204070-01	0	0.1	0.096	96.%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0204070-01	0	0.1	0.083	83.%
Ethylbenzene-mg/L		0204070-01	0	0.1	0.083	83.%
Toluene-mg/L		0204070-01	0	0.1	0.083	83.%
p/m-Xylene-mg/L		0204070-01	0	0.2	0.172	86.%
o-Xylene-mg/L		0204070-01	0	0.1	0.083	83.%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0002646-05		0.1	0.106	106.%
Ethylbenzene-mg/L		0002646-05		0.1	0.099	99.%
Toluene-mg/L		0002646-05		0.1	0.108	108.%
p/m-Xylene-mg/L		0002646-05		0.2	0.208	104.%
o-Xylene-mg/L		0002646-05		0.1	0.100	100.%

APPENDIX B

APPENDIX B

Soil Boring and Monitoring Well Records

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-1

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0		Silty Sand 7.5 YR 5/2, brown quartz sand, loose topsoil, very fine grained, poorly sorted	1	II		15.3	5-6' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): < 20 Chloride: <10 Arsenic: 3.8 Barium: 302 Cadmium: 0.144 Chromium: 1.56 Lead: <0.550 Selenium: <0.20 Silver: <0.10 Mercury: <0.100
5		Caliche 7.5 YR 7/3, pink quartz sand, dense	2	II		19.9	
10			3	II		19.7	
15			4	II		16.1	
20			5	II		17.7	
30		TD: 31'	6	II		14.4	30-31' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20 Chloride: <10 Arsenic: 2.5 Barium: 111 Cadmium: 0.177 Chromium: 4.07 Lead: <0.550 Selenium: <0.20 Silver: <0.10 Mercury: <0.080
35							All constituents measured in mg/kg
40							
45							
50							

Drilling Method: Rotary

Date Drilled: 6/4/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-2

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
						250 500 750	
0		Ground Surface					
0		Silty, Clayey Sand 10YR 8/3, very pale brown, very fine grained, very poorly sorted, 30% soft, plastic clay, hydrocarbon stained.	1	II			5-6' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 47.3
5		Caliche 7.5 YR 7/3, pink quartz sand, dense.	2	II			
10			3	II			
15			4	II		108.3	
20			5	II		67.7	
25							
30		Sand 7.5 YR 7/4, pink quartz sand, very fine grained, poorly sorted, moderately loose.	6	II		36.8	30-31' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <39.2 Chloride: 22.2 Arsenic: 3.63 Barium: 30.2 Cadmium: 0.226 Chromium: 5.0 Lead: <0.550 Selenium: <0.20 Silver: <0.10 Mercury: <0.080
		TD: 31'					All Concentrations reported in mg/kg
35							
40							
45							
50							

Drilling Method: Rotary

Date Drilled: 6/4/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-3

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE						
Depth	Symbol	Description	Number	Type	Recovery	PID Measurement (PPM)			Lab Analysis
						50	100	150	
0		Ground Surface							
		Silty, Clayey Sand 10YR 8/3, very pale brown, very fine grained, very poorly sorted, 30% soft, plastic clay, hydrocarbon stained from surface to 2.5' bgs.	1	II			47.9		5-6' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 17.7
5			2	II			123.0		
10			3	II			55.2		
		Dolomite 2.5 YR 5/2, weak red, very dense.							
15			4	II			113.8		
20		Silty, Clayey Sand 10 YR 8/2, very pale brown, very fine grained, well sorted, moderately dense, 35% silt, 10% clay.	5	II			83.9		
25		Sand 7.5 YR 7/6, reddish yellow quartz sand, very fine grained, poorly sorted, loose.							30-31' BGS TPH (C6-C35): 95.3 Chloride: 35.4 Arsenic: 1.95 Barium: 31.4 Cadmium: 0.322 Chromium: 5.91 Lead: <0.550 Selenium: <0.20 Silver: <0.10 Mercury: <0.080
30			6	II			36.8		
35									
		TD: 31'							
40									All Concentrations reported in mg/kg
45									
50									

Drilling Method: Rotary

Date Drilled: 6/5/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-4

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0		Silty Sand 7.5 YR 5/2, brown quartz sand, loose topsoil, very fine grained, very poorly sorted	1	II		99.2	10-11' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 17.7
5		Silty Sand 5 YR 7/4, pinkquartz sand, very fine grained, very poorly sorted, loose.	2	II		75.7	
10			3	II		218.6	
15		Caliche 7.5 YR 8/1, white, very poorly sorted, indurated.	4	II		140.8	
20		Silty Sand 7.5 YR 8/3, pink quartz sand, very fine grained, very poorly sorted, moderately loose.	5	II		156.8	
30		TD: 31'	6	II		52.4	30-31' BGS TPH (C6-C35): <27.2 Chloride: 17.7 Arsenic: 3.79 Barium: 64.5 Cadmium: 0.135 Chromium: 4.61 Lead: <0.550 Selenium: <0.20 Silver: <0.10 Mercury: <0.080 All concentrations reported in mg/kg
35							
40							
45							
50							

Drilling Method: Rotary

Date Drilled: 6/5/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-5

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
						10 20 30	
0		Ground Surface					
		Silty Sand 7.5 YR 5/2, brown quartz sand, loose top soil, very fine grained, very poorly sorted.	1	II		15.9	20-21' BGS TPH (C60C35): <20.0 Chloride: 17.7 Arsenic: 5.88 Barium: 88.4 Cadmium: 0.151 Chromium: 3.22 Lead: <0.550 Selenium: <0.20 Silver: <0.10 Mercury: <0.080
5		Silty Sand 5YR 7/4, pink quartz sand, very fine grained, very poorly sorted, medium density.	2	II		19.7	
10		Caliche 7.5 YR 8/1, white, very poorly sorted, very indurated.	3	II		20.2	
15			4	II		18.7	
20			5	II		22.4	
30		Silty Sand 7.5 YR 8/3, pink quartz sand, very fine grained, very poorly sorted, moderately loose. TD: 31'	6	II		16.8	30-31' BGS TPH (C6-C35): <20.0 Chloride: 17.7
35							All concentrations reported in mg/kg
40							
45							
50							

Drilling Method: Rotary

Date Drilled: 6/5/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-6

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0		Silty Sand 5YR 7/4, pink quartz sand, very fine grained, very poorly sorted, hydrocarbon stained.	1	II		41.5	0-7" BGS TPH (C6-C35): <37.0 Chloride: 17.7 Arsenic: 5.71 Barium: 126 Cadmium: 1.56 Chromium: 179 Lead: 2.9 Selenium: <0.20 Silver: <0.10 Mercury: <0.10
5		Caliche 7.5 YR 8/1, white, very poorly sorted, very indurated.	2	II		12.6	
10		Silty Sand 7.5 YR 7/4 to 8/3, reddish yellow to pink quartz sand and sandstone, very fine grained, very poorly sorted, medium density.	3	II		10.7	
15			4	II		11.9	
20		Sandstone 7.5 YR 7/2, pinkish gray quartz sand, very fine grained, poorly sorted, very dense.	5	II		10.2	
30			6	II		11.4	
TD: 31'							30-31' BGS TPH (C6-C35): <20.0 Chloride: 17.7
35							All concentrations reported in mg/kg
40							
45							
50							

Drilling Method: Rotary

Date Drilled: 6/5/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-7

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0		Silty Sand 7.5 YR 5/2, brown quartz sand, very fine grained, very poorly sorted.	1	II		86.1	5-6' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <88.6 Chloride: 53.2 Arsenic: 3.51 Barium: 168 Cadmium: 0.360 Chromium: 179 Lead: 0.7 Selenium: <0.20 Silver: 0.785 Mercury: <0.10
5		Silty Sand 5 YR 7/4, pink quartz sand, very fine grained, very poorly sorted.	2	II		172.2	
10		Caliche 7.5 YR 8/1, white, very poorly sorted, very indurated.	3	II		117.4	
15			4	II		98.4	
20			5	II		93.7	
25		Sand 7.5 YR 7/6, reddish yellow quartz sand, very fine grained, very poorly sorted, loose.					30-31' BGS TPH (C6-C35): <30.9 Chloride: 50.6
30			6	II		32.5	
30		TD: 31'					All concentrations reported in mg/kg
35							
40							
45							
50							

Drilling Method: Rotary

Date Drilled: 6/5/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-8

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
						500 1000 1500	
0		Ground Surface					
0		Silty, Clayey Sand 7.5 YR 5/2, brown quartz sand, very fine grained, very poorly sorted, moderately loose. Soft, plastic clay. Hydrocarbon stained.	1	II		863.5	5-6' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C60C35): <25.1 Chloride: 97.5 Arsenic: 2.78 Barium: 81.4 Cadmium: 0.448 Chromium: 5.48 Lead: <0.550 Selenium: <0.200 Silver: 0.496 Mercury: <0.040
5		Clayey Silt 5YR 6/6, reddish yellow, 40% soft, plastic clay, very poorly sorted	2	II		1620.0	
10		Caliche 7.5 YR 8/1, white, very poorly sorted, very indurated.	3	II		697.8	
15			4	II		278.7	
20			5	II		28.4	
25		Sand 7.5 YR 7/3, pink quartz sand, very fine grained, very poorly sorted, loose.					30-31' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 26.6
30			6	II		58.5	
31		TD: 31'					
35							
40							
45							All concentrations reported in mg/kg
50							

Drilling Method: Rotary

Date Drilled: 6/6/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-9

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE						
Depth	Symbol	Description	Number	Type	Recovery	PID Measurement (PPM)			Lab Analysis
						500	1000	1500	
0		Ground Surface							
		Silty, Clayey Sand 7.5 YR 5/2, brown quartz sand, very fine grained, very poorly sorted, moderately loose. Soft, plastic clay. Hydrocarbon stained.	1	II				1999.0	5-6" BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 97.5 Arsenic: 1.55 Barium: 65.1 Cadmium: 0.340 Chromium: 4.34 Lead: <0.550 Selenium: <0.200 Silver: 0.155 Mercury: <0.040
5		Clayey Silt 5 YR 6/6, reddish yellow, 40% soft, plastic clay, very poorly sorted.	2	II				1999.0	
10		Caliche 7.5 YR 8/1, white, very poorly sorted, very indurated.	3	II				1749.0	
15			4	II				1999.0	
20			5	II				1999.0	
25		Sand 7.5 YR 7/3, pink quartz sand, very fine grained, poorly sorted, loose.							30-31' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 26.6
30		TD: 31'	6	II				1999.0	
35									
40									
45									
50									

All concentrations reported in mg/kg

All concentrations reported in mg/kg

Drilling Method: Rotary

Date Drilled: 6/6/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-10

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE						
Depth	Symbol	Description	Number	Type	Recovery	PID Measurement (PPM)			Lab Analysis
						500	1000	1500	
0		Ground Surface							
0		Silty Clayey Sand 7.5 YR 5/2, brown quartz sand, very fine grained, very poorly sorted, moderately loose. Soft, plastic clay. Hydrocarbon stained.	1	II				1431.0	0-2' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): 2107 Chloride: 33.2 Arsenic: 3.4 Barium: 124 Cadmium: 0.844 Chromium: 16.70 Lead: 3.8 Selenium: 3.7 Silver: <0.100 Mercury: <0.100
5		Clayey Silt 5 YR 6/6, reddish yellow, 40% soft, plastic clay, very poorly sorted.	2	II				795.9	
10		Caliche 7.5 YR 8/1, white, very poorly sorted, very indurated.	3	II			219.2		
15			4	II				906.7	
20		Sand 7.5 YR 7/3, pink quartz sand, very fine grained, poorly sorted, loose.	5	II				1999.0	20-21' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 33.2
25									
30			6	II				1999.0	30-31' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <40.1 Chloride: 29.5
35		TD: 31'							
40									All concentrations reported in mg/kg
45									
50									

Drilling Method: Rotary

Date Drilled: 6/6/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-11

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0		Silty, Clayey Sand 2.5 YR 3/3, dark reddish brown, 40% plastic clay, 10% silt, soft, very fine grained, very poorly sorted, hydrocarbon stained, damp.	1	II		72.5	5-6' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 44.3 Arsenic: 1.51 Barium: 78.3 Cadmium: 0.394 Chromium: 4.12 Lead: <0.550 Selenium: 0.9 Silver: <0.100 Mercury: <0.040
5		Silty, Clayey Sand 5 YR 6/6, reddish yellow, 25% clay, 25% silt, very fine grained, poorly sorted, slight hydrocarbon staining, damp.	2	II		183.6	
10		Caliche 10YR 8/1, white, fine grained, very poorly sorted, very indurated, dry.	3	II		67.3	
15			4	II		47.4	
20			5	II		8.2	
25		Silty Sand 7.5 YR 7/3, pink quartz sand, fine grained, poorly sorted, loose.				55.8	30-31' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 44.3
30		TD: 31'	6	II			
35							
40							
45							
50							All concentrations reported in mg/kg

Drilling Method: Rotary

Date Drilled: 6/7/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
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Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: **Texaco**

Project: **Buckeye Plant**

Project No: **2-0102**

Location: **SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM**

Log of Borehole: **BH-12**

Geologist: **Cindy K. Crain**

Page: **1 of 1**

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0		Silty Clayey Sand 7.5 YR 5/2, brown quartz sand, very fine grained, very poorly sorted, moderately loose. Soft, plastic clay.	1	II		475.8	5-6' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 17.7 Arsenic: 4.15 Barium: 1918 Cadmium: 0.118 Chromium: 1.58 Lead: <0.550 Selenium: <0.200 Silver: <0.100 Mercury: <0.100
5		Dolomitic Caliche 7.5 YR 8/1, white to 10YR 4/3, weak red. Very indurated.	2	II		1999.0	
10			3	II		1165.0	
15			4	II		1999.0	15-16' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 17.7
20			5	II		1535.0	
25		Silty Sand 7.5 YR 7/3, pink quartz sand, very fine grained, very poorly sorted, moderately loose.					
30		TD: 31'	6	II		143.8	30-31' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 17.7
35							
40							
45							
50							

Drilling Method: **Rotary**

Date Drilled: **6/7/02**

Hole Size: **7 7/8"**

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: **CKC**

Drilled by: **Scarborough Drilling, Inc.**

All concentrations reported
in mg/kg

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-13

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0		Silty Clayey Sand 7.5 YR 5/2, brown quartz sand, very fine grained, very poorly sorted, moderately loose, slight hydrocarbon and sulphur staining.	1	II		26.8	0-2' BGS TPH (C6-C35): 5901.6 Chloride: 222 Arsenic: 16.1 Barium: 254 Cadmium: 0.435 Chromium: 4.63 Lead: 2.9 Selenium: <0.200 Silver: <0.100 Mercury: <0.100
5		Silty Sand 5 YR 7/4, pink quartz sand, very fine grained, very poorly sorted, moderately loose.	2	II		19.4	
10		Caliche 7.5 YR 8/1, white, silty, indurated.	3	II		25.2	
15			4	II		22.4	
20			5	II		5.9	
25		Sand 7.5 YR 7/6, reddish yellow quartz sand, very fine grained, poorly sorted, loose.					30-31' BGS TPH (C6-C35): <24.4 Chloride: 17.7
30			6	II		11.2	
		TD: 31'					
35							
40							
45							
50							

Drilling Method: Rotary

Date Drilled: 6/7/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

All concentrations reported
in mg/kg

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-14

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0		Silty Clayey Sand 10 YR 5/3, brown quartz sand, very fine grained, very poorly sorted.	1	II		322.7	0-6" BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <23.4 Chloride: 17.7 Arsenic: 11.1 Barium: 269 Cadmium: 0.690 Chromium: 8.57 Lead: 7.2 Selenium: <0.200 Silver: <0.100 Mercury: <0.100
5		Silty Clayey Sand 5 YR 7/3, pink quartz sand, very fine grained, very poorly sorted, moderately dense.	2	II		146.8	
10		Dolomitic Caliche 7.5 YR 8/1, white, to 10 YR 4/3, weak red, very indurated.	3	II		175.6	
15			4	II		64.8	15-16' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 17.7
20			5	II		92.9	
25		Silty Sand 7.5 YR 7/6, reddish yellow quartz sand, very fine grained, very poorly sorted, moderately dense.					
30		TD: 31'	6	II		30.8	30-31' BGS TPH (C6-C35): <20.0 Chloride: 17.7
35							
40							
45							
50							

Drilling Method: Rotary

Date Drilled: 6/7/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-15

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE						
Depth	Symbol	Description	Number	Type	Recovery	PID Measurement (PPM)			Lab Analysis
						500	1000	1500	
0		Ground Surface							
0		Silty, Clayey Sand 5 YR 7/3, pink quartz sand, very fine grained, very poorly sorted.	1						1999.0 0-6" BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 17.7
5			2						1999.0 Arsenic: 5.14 Barium: 288 Cadmium: 0.421 Chromium: 2.50 Lead: 1.1
10		Caliche 7.5 YR 8/1, white, very indurated.							1999.0 Selenium: <0.200 Silver: <0.100 Mercury: <0.100
15			3						15-16" BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 17.7
20			4						
25		Silty Sand 7.5 YR 7/6, reddish yellow quartz sand, very fine grained, very poorly sorted, moderately dense.	5						1801.0
30			6						121.4
35		TD: 31'							
40									All concentrations reported in mg/kg
45									
50									

Drilling Method: Rotary

Date Drilled: 6/7/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-16

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
0		Silty Clayey Sand 7.5 YR 5/2, brown quartz sand, very fine grained, very poorly sorted, moderately loose. Plastic clay.	1	II		341.9	0-1' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): <20.0 Chloride: 19.7 Arsenic: 3.41 Barium: 93.3 Cadmium: 1.05 Chromium: 14.0 Lead: 3.0 Selenium: <0.200 Silver: <0.100 Mercury: <0.100
5		Silty Sand 5 YR 7/4, pink quartz sand, very fine grained, very poorly sorted, moderately loose.	2	II		294.6	
10		Caliche 7.5 YR 8/1, white, very poorly sorted, very indurated.	3	II		41.7	
15			4	II		24.8	
20			5	II		11.4	
25		Sand 7.5 YR 7/3, pink quartz sand, very fine grained, poorly sorted, loose.					
30		TD: 31'	6	II		7.8	30-31' BGS TPH (C6-C35): <20.0 Chloride: 19.7
35							All concentrations reported in mg/kg
40							
45							
50							

Drilling Method: Rotary

Date Drilled: 6/6/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log of Borehole: BH-17

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE			SAMPLE			PID Measurement (PPM)	Lab Analysis
Depth	Symbol	Description	Number	Type	Recovery		
						250 750 1250 1750	
0		Ground Surface					
		Silty Clayey Sand 10 YR 5/3, brown quartz sand, very fine grained, very poorly sorted, hydrocarbon odor.	1	II			1999.0 0-1' BGS Benzene: 0.063 Total BTEX: <0.401 TPH (C6-C35): 643.7 Chloride: 19.7
5		Silty Clayey Sand 2.5 Y 7/3, pale yellow quartz sand, very fine grained, very poorly sorted, medium density, strong hydrocarbon odor.	2	II			1999.0 Arsenic: 22.3 Barium: 341 Cadmium: 0.280 Chromium: 2.94 Lead: 5.9
10		Caliche 7/5 YR 8/1, white quartz sand, very indurated, strong hydrocarbon odor.	3	II			1999.0 Selenium: <0.200 Silver: <0.100 Mercury: <0.100
15			4	II			15-16' BGS 1999.0 Benzene: <0.025 Total BTEX: <0.143 TPH (C60C35): 399.2 Chloride: 8.9
20			5	II			1999.0
25		Sand 7.5 YR 7/6, reddish yellow quartz sand, very fine grained, poorly sorted, loose.					
30			6	II		140.6	30-31' BGS Benzene: <0.025 Total BTEX: <0.125 TPH (C6-C35): 345.8 Chloride: 17.7
		TD: 31'					
35							
40							
45							
50							

All concentrations reported in mg/kg

Drilling Method: Rotary

Date Drilled: 6/7/02

Hole Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

Checked by: CKC

Drilled by: Scarborough Drilling, Inc.

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-1

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Silty Sand 7.5 YR 4/2, brown quartz sand, very fine grained, very poorly sorted, loose to dense.					55.6		1.0 - 116.0' Cement-Bentonite Grout
10							1359.0		
15							1269.0		
20							277.8		
25		Caliche 7.5 YR 8/3, pink quartz sand, very fine grained, very poorly sorted, very indurated.	3969				7.3		0.0 - 122.47' 2" Sch. 40 PVC Riser (Threaded)
30							29.6		
35		Sand 5 YR 7/4, pink quartz sand, very fine grained, well sorted, loose.					12.2		
40									
45									116 - 119': Bentonite pellets
50			3940						
55		Sand 5 YR 6/6, reddish yellow quartz sand, very fine grained, well sorted, loose, damp.					119.8		
60									
65									119 - 142.6' 8-16 Graded Silica Sand W. L. 129.7' BGS (6/27/02) 122.47 - 142.09 2" Sch. 40 Screen 0.02" Slot (Threaded) Sch. 40 PVC Cap (Threaded) Casing Stickup: 2.4'
70									
75									
80							551.9		
85									End of Borehole
90									
95									
100									
105									End of Borehole
110									
115									
120									
125									End of Borehole
130									
135									
140			3851						
145		End of Borehole							End of Borehole
150									

Drilling Method: Rotary (water)

Date Drilled: 6/10/02

Well Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3990.85

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-2

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Silty Sand 7.5 YR 5/2, brown quartz sand, very fine grained, very poorly sorted.	3982						1.0 - 117' BGS Cement-Bentonite Grout
10									
15		Silty Sand 5 YR 7/4, pink quartz sand, very fine grained, very poorly sorted.	3968						0.0 - 123.27' BGS 2" Sch. 40 PVC Riser (Threaded)
20									
25		Sandstone 5 YR 7/4, pink quartz sand, very fine grained, very poorly sorted, very indurated.							
30									
35									
40		Silty Sand 5 YR 6/6, reddish yellow quartz sand, very fine grained, poorly sorted, moderately loose.	3935						
45									
50									
55									
60		Sand 7.5 YR 5/3, brown quartz sand, very fine grained, well sorted, loose, damp.							
65									117 - 120' BGS Bentonite pellets 120 - 143.4' BGS 8/16 Graded Silica Sand W. L. 129.9' BGS (6/12/02) 123.27 - 142.89' BGS 2" Sch. 40 Screen 0.02" Slot (Threaded) Sch. 40 PVC Cap (Threaded) Casing Stickup: 2.3'
70									
75									
80									
85									
90									
95									
100									
105									
110									
115									
120									
125									
130									
135									
140			3851						
145		End of Borehole							
150									

Drilling Method: Rotary (water)

Date Drilled: 6-11-02

Well Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3991.08

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-3

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Silty Sand 7.5 YR 4/2, brown quartz sand, very fine grained, very poorly sorted, loose, hydrocarbon stained.	3979				1999.0		1.0 - 117' BGS Cement-Bentonite Grout
10							1999.0		
15							1999.0		
20		Silty, Clayey Sand 7.5 YR 7/3, pink quartz sand, very fine grained, very poorly sorted, 40% soft, plastic clay. Hydrocarbon stained.	3966				1999.0		
25							1999.0		0.0 - 123.72' BGS 2" Sch. 40 PVC Riser (Threaded)
30							1999.0		
35		Caliche 7.5 YR 8/3, pink quartz sand, very poorly sorted, indurated, hydrocarbon odor.	3950				1999.0		
40							1999.0		
45			3946						
50		Silty Sand 5 YR 6/3, light reddish brown, very fine grained, well sorted, loose, hydrocarbon odor.	3938						
55									
60							1999.0		
65		Sandstone 5 YR 6/3, light reddish brown, very fine grained, poorly sorted, dense, hydrocarbon odor.							
70									
75									
80		Silty Sand 5 YR 6/3, light reddish brown quartz sand, very fine grained, well sorted, loose.							117 - 120' BGS Bentonite pellets 120 - 143.85' BGS 8/16 Graded Silica Sand W. L. 130.8' (6/13/02) 123.72 - 143.34' BGS 2" Sch. 40 Screen 0.02" Slot (Threaded) Sch. 40 PVC Cap (Threaded) Casing Stickup: 2.65'
85									
90									
95		Sand 7.5 YR 5/3, brown quartz sand, very fine grained, well sorted, loose, damp, hydrocarbon odor.							
100									
105									
110			3852						
115									
120									
125									
130									
135									
140									
145		End of Borehole							
150									

Drilling Method: Rotary (water)

Date Drilled: 6/12/02

Well Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3991.75

Checked by: CKC

Drilled by: Scarborough Drilling

Client: **Texaco**

Project: **Buckeye Plant**

Project No: **2-0102**

Location: **SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM**

Log: MW-4

Geologist: **Cindy K. Crain**

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM) 25 50 75 125 72.1	Well Detail	Notes Well Secured with Locking Above-Grade Cover
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Silty Sand 7.5 YR 5/2, brown quartz sand, very fine grained, very poorly sorted, loose, damp.							
10							85.6		1.0 - 116' BGS Cement-Bentonite Grout
15		Silty, Clayey Sand 5 YR 5/4, reddish brown quartz sand, very fine grained, very poorly sorted, 30% soft, plastic clay, damp.	3961				54.0		
20							14.4		
25							107.7		
30							107.6		
35		Sandstone 5 YR 7/2, pinkish gray quartz sand, very fine grained, very poorly sorted, very dense.	3953				57.0		
40									
45									
50		Silty Sand 5 YR 7/6, reddish yellow quartz sand, very fine grained, well sorted, loose.	3938				22.0		0.0 - 122.47' BGS 2" Sch. 40 PVC Riser (Threaded)
55									
60		Silty Sand 5 YR 6/6, reddish yellow quartz sand, very fine grained, well sorted, loose, damp.							
65									
70									
75									
80									
85									
90									
95									
100									
105									
110									
115									
120									116 - 119' BGS Bentonite pellets
125									119 - 142.6' BGS 8/16 Graded Silica Sand W. L. 131.3' (6/14/02)
130									122.47 - 142.09' BGS 2" Sch. 40 Screen 0.02" Slot (Threaded)
135									Sch. 40 PVC Cap (Threaded)
140			3852						Casing Stickup: 2.9'
145		End of Borehole							
150									

Drilling Method: **Rotary (water)**

Date Drilled: **6/13/02**

Well Size: **7 7/8"**

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: **3991.57**

Checked by: **CKC**

Drilled by: **Scarborough Drilling**

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-5

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Silty, Clayey Sand 5 YR 7/3, pink quartz sand, very fine grained, very poorly sorted, moderately loose, 30% soft, plastic clay.	3984				400 1200 692.9 1751.0		1.0 - 119' BGS Cement-Bentonite Grout
10			3979				261.0		
15							33.6		
20		Silty, Clayey Sand 2.5 YR 4/4, reddish brown quartz sand, very fine grained, very poorly sorted, moderately loose, 20% clay.	3969				16.6		
25							18.8		
30							14.6		
35		Sandstone 5 YR 7/2, pinkish gray quartz sand, very fine grained, very poorly sorted, very dense.							
40									
45									
50		Silty Sand 5 YR 7/4, pink quartz sand, very fine grained, well sorted, loose.	3935				13.7		0.0 - 125.97' BGS 2" Sch. 40 PVC Riser (Threaded)
55									
60		Silty Sand 5 YR 4/4, reddish brown quartz sand, very fine grained, well sorted, loose, damp.							
65									
70									
75									
80									
85									
90									
95									
100									
105									
110									
115									
120									119 - 122' BGS Bentonite pellets
125									122 - 146.1' BGS 8/16 Graded Silica Sand W. L. 131.55' (6/19/02)
130									125.97 - 145.59' BGS 2" Sch. 40 Screen 0.02" Slot (Threaded)
135									Sch. 40 PVC Cap (Threaded)
140			3849						Casing Stickup: 2.5'
145		End of Borehole							
150									

Drilling Method: Rotary (water)

Date Drilled: 6/14/02

Well Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3992.12

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-6

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Silty Sand 10 YR 7/2, light gray quartz sand, very fine grained, very poorly sorted, moderately dense.	3979				10.4		1.0 - 116' BGS Cement-Bentonite Grout
10							24.3		
15		Silty Sand 5 YR 7/6, reddish yellow quartz sand, very fine grained, very poorly sorted, moderately dense.	3969				13.8		
20							9.6		
25							12.4		
30		Caliche 10 YR 8/1, white quartz sand, very poorly sorted, indurated.					9.9		
35							9.3		
40							7.6		
45		Silty Sand 5 YR 7/6, reddish yellow quartz sand, very fine grained, very poorly sorted, fairly loose.	3937						0.0 - 122.37' BGS 2" Sch. 40 PVC Riser (Threaded)
50									
55		Silty Sand 5 YR 6/6, reddish yellow quartz sand, very fine grained, well sorted, loose, damp.							
60									
65									
70									
75									
80									
85									
90									
95									
100									
105									
110									
115									
120									116 - 119' BGS Bentonite pellets
125									119 - 142.5' BGS 8/16 Graded Silica Sand W. L. 130.5' (6/14/02)
130									122.37 - 141.99' BGS 2" Sch. 40 Screen 0.02" Slot (Threaded)
135									Sch. 40 PVC Cap (Threaded)
140			3852						Casing Stickup: 3'
145		End of Borehole							
150									

Drilling Method: Rotary (water)

Date Drilled: 6/12/02

Well Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3991.94

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-7

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Silty Sand 7.5 YR 5/2, brown quartz sand, very fine grained, very poorly sorted, loose.	3981				50 62.4 150 250 190.6		1.0 - 116' BGS Cement-Bentonite Grout
10							256.3		
15		Silty, Clayey Sand 5 YR 5/4, reddish brown quartz sand, very fine grained, poorly sorted, 20% clay.	3969				145.6		
20							57.7		
25							51.2		
30		Sandstone 5 YR 7/2, pinkish gray, very fine grained, very poorly sorted, very dense.					53.9		
35									
40									
45		Sand 5 YR 7/6, reddish yellow silty quartz sand, very fine grained, well sorted, fairly loose.	3939				21.7		0.0 - 122.17' BGS 2" Sch. 40 PVC Riser (Threaded)
50									
55		Silty Sand 5 YR 6/6, reddish yellow quartz sand, very fine grained, well sorted, loose, damp.							
60									
65									
70									
75									
80									
85									
90									
95									
100									
105									
110									
115									
120									116 - 119' BGS Bentonite pellets
125									119 - 142.3' BGS 8/16 Graded Silica Sand
130									W. L. 130.6' (6/14/02)
135									122.17 - 141.79' BGS 2" Sch. 40 Screen 0.02" Slot (Threaded)
140			3853						Sch. 40 PVC Cap (Threaded)
145		End of Borehole							Casing Stickup: 3.2'
150									

Drilling Method: Rotary (water)

Date Drilled: 6/13/02

Well Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3992.89

Checked by: CKC

Drilled by: Scarborough Drilling

Client: Texaco

Project: Buckeye Plant

Project No: 2-0102

Location: SW/4, SE/4, Sec. 36, T17S, R34E, Lea Co., NM

Log: MW-8

Geologist: Cindy K. Crain

Page: 1 of 1

SUBSURFACE PROFILE				SAMPLE			PID Measurement (PPM)	Well Detail	Notes
Depth	Symbol	Description	Elev.	Number	Type	Recovery			
5		Silty Sand 7.5 YR 5/2, brown quartz sand, very fine grained, very poorly sorted.					24.8		1.0 - 117' BGS Cement-Bentonite Grout
10							27.1		
15							8.9		
20		Caliche 7.5 YR 8/3, pink quartz sand, very fine grained, very poorly sorted, indurated.	3969				19.4		0.0 - 123.57' BGS 2" Sch. 40 PVC Riser (Threaded)
25							10.7		
30		Silty Sand 5 YR 6/6, reddish yellow quartz sand, very fine grained, poorly sorted, moderately loose.					37.9		
35									
40									
45									
50			3939						
55		Sand 7.5 YR 5/3, brown quartz sand, very fine grained, well sorted, loose, damp.					32.4		
60									
65									
70									117 - 120' BGS Bentonite pellets 120 - 143.7' BGS 8/16 Graded Silica Sand W. L. 129.9' (6/13/02) 123.57 - 143.19' BGS 2" Sch. 40 Screen 0.02" Slot (Threaded) Sch. 40 PVC Cap (Threaded) Casing Stickup: 2.9'
75									
80									
85									
90									
95									
100									
105									
110									
115									
120									End of Borehole
125									
130									
135									
140			3851						
145									End of Borehole
150									

Drilling Method: Rotary (water)

Date Drilled: 6/12/02

Well Size: 7 7/8"

Larson and Associates, Inc.
507 North Marienfeld St., Ste. 202
Midland, Texas 79701
(915) 687-0901

TOC Elevation: 3991.27

Checked by: CKC

Drilled by: Scarborough Drilling

LARSON & ASSOCIATES, INC.

P. O. Box 50685 ♦ Midland, Texas 79710-0685

Ph. (915) 687-0901

July 25, 2001

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

Re: Groundwater Discharge Plan Renewal, Dynegy Midstream Services, L.P., Buckeye Compressor Station (GW-029), SW/4, SE/4, Section 36, Township 17 South, Range 34 East, Lea County, New Mexico

Dear Mr. Price:

Dynegy Midstream Services, L.P. (Dynegy) has retained Larson & Associates, Inc. (LA) to prepare responses to several items identified by the New Mexico Oil Conservation Division (NMOCD) during its inspection of the Buckeye Compressor Station (Facility) on November 20, 2000. The inspection was performed in conjunction with renewal of the Facility's groundwater discharge plan (GW-029). The Facility is located in the southwest quarter (SW/4) of the southeast quarter (SE/4), Section 36, Township 17 South, Range 34 East, Lea County, New Mexico. Figure 1 presents a Facility location and topographic map.

On February 9, 2001, the NMOCD issued Dynegy a letter specifying conditions for approval of the groundwater discharge plan renewal. Dynegy requested LA to prepare responses to three items for submittal to the NMOCD by July 31, 2000. Appendix A presents NMOCD correspondence. The items addressed by LA include:

Item 14 1. Please address the oil stained areas shown in pictures # 2 and # 4 (Section 1.0).

Item 15 Submit a stormwater run-off plan for OCD by July 31, 2001 (Section 2.0).

Item 16. Dynegy shall collect a water sample from the on-site water well. This well shall be purged, sampled and analyzed for Volatile Organics (EPA method 8260), Semi-Volatile Organics (EPA method 8270), General Chemistry, total dissolved solids, pH (EPA method CFR 40 136.3) and New Mexico Water Quality Control Commission (WQCC) metals, all using EPA approved methods and quality assurance/quality control (QA/QC) procedures (Section 3.0).

Responses for each of these items are addressed below.

1.0 OIL STAIN AREA CLEAN-UP PLAN

1.1 Introduction

The NMOCD identified two areas on the north side of the compressor building that showed oil staining likely from compressor engine drips (pictures # 2 and # 4).

1.2 Proposed Cleanup Plan

Dynegy proposes to treat the affected areas by adding amendments to the soil to promote biological degradation of the hydrocarbons. A nitrogen-based fertilizer and organic mulch (i.e.,

manure and hay) will be mixed into the soil to stimulate microbes to metabolize the organic compounds. The soil will be periodically tilled and watered. Soil samples will be analyzed for TPH to assess that the remediation program. Dynegy will submit a summary report to the NMOCD following completion of the project.

2.0 STORM WATER MANAGEMENT PLAN

Dynegy has developed a comprehensive Spill Prevention Control and Countermeasure (SPCC) Plan that has been incorporated into the groundwater discharge plan as an appendix. The SPCC plan provides mechanisms to prevent potential non-point source discharges of materials used or wastes generated at the Facility, as well as manage storm water. Secondary containment structures have been constructed to collect storm water, and prevent accidental discharge of materials used or wastes generated at the Facility. The capacities of secondary containment structures have generally been designed to impound the capacity of the largest tank plus rainfall from a 25-year, 24-hour storm event. Secondary containment structures of earthen, concrete or fiberglass materials are present at potential source areas to collect and store leaks, drips, spills and storm water. Secondary containment structures are present at the following potential sources:

- Lube oil storage tank;
- Condensate storage tank; and
- Slop oil storage tanks.

Storm water runoff generally follows the slope of the topography, and flows to the south-southeast. A storm water retention berm has been constructed near the down gradient (south-southeast) corner of the Facility. The storm water retention berm is approximately 18 inches in height, and extends from the southwest corner of the Facility, east to the southeast corner of the Facility, and to the northeast approximately 275 feet. The location of the storm water retention berm is shown on Figure 2. Figure 3 presents a detailed drawing of the storm water retention berm. Appendix B presents photographs.

According to the SPCC Plan, any oil or product present on storm water at the collection area or secondary containment structures is absorbed with booms or other similar equipment, and returned to the Facility. Storm water is allowed to evaporate or is drained, unless hydrocarbons are present. Storm water containing hydrocarbons, based on visual identification of a sheen or floating layer, is picked up with a vacuum truck and disposed in a permitted well.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

LA personnel collected a groundwater sample from the on-site water well on April 4, 2001, after the well was purged. The sample was collected from a port located between the well and meter. Sample containers acquired from the laboratory (Environmental Lab of Texas, Inc.) were carefully filled, labeled, chilled in an ice chest, and deliver to the lab under chain-of-custody control. Samples for metals analysis were filtered prior to filling the containers. All samples were preserved in accordance with EPA protocol. The samples were analyzed for the parameters requested by the NMOCD on February 9, 2001, and are summarized in Table 1. Appendix C presents the laboratory report.

Mr. Wayne Price
July 25, 2001
Page 3

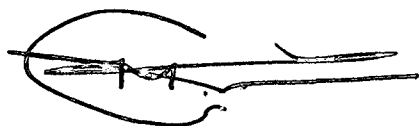
Benzene was the only organic (volatile and semi-volatile) parameter detected in the water sample. The concentration of benzene was reported at 0.558 milligrams per liter (mg/L), and exceeded the New Mexico Water Quality Control Commission (WQCC) human health standard of 0.01 mg/L. No inorganic (i.e., metal or general inorganic) compounds were reported above the NMWQCC water quality standards.

Texaco Exploration and Production Inc. (Texaco) originally notified the NMOCD of the benzene impact in the water well on June 4, 1998 (verbal correspondence). Texaco previously operated the Buckeye Gas Plant, and had collected a water sample from the well that reported a benzene concentration of 0.23 mg/L. Texaco notified the NMOCD in writing on June 12, 1998 that it would submit a work plan to address groundwater clean up. On June 30, 1998, Texaco notified the NMOCD in writing that Texaco and Dynegy were forming a joint-venture company (Versado Gas Processors, L.L.C.), and that Texaco would be responsible for most environmental issues that resulted prior to formation of the joint venture, including the benzene reported in the sample from the water well. Appendix D presents correspondence and meeting/conversation notes from the NMOCD files.

Please contact Mr. Cal Wrangham at (915) 688-0555 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', with a large, stylized loop at the end.

Mark J. Larson, CGP, CGWP
President

Encl.

cc: Cal Wrangham – Dynegy, Midland, Texas
James Lingnau – Dynegy, Eunice, New Mexico
Chris Williams – NMOCD, District 1, Hobbs, New Mexico

TABLES

Table 1: Summary of Laboratory Analysis of Groundwater from Plant Well
Dynegy Midstream Services, L.P., Buckeye Compressor Station
SW/4, SE/4, Section 36, Township 17 South, Range 34 East
Lea County, New Mexico

Page 1 of 1

Parameter	Reporting Unit	Plant Well	WQCC Standard
Sample Date:		04/04/01	
<u>Organic</u>			
Benzene	mg/L	0.0558	*0.01
<u>Metal</u>			
Aluminum (Al)	mg/L	0.1537	5.0
Arsenic (As)	mg/L	<0.008	*0.1
Barium (Ba)	mg/L	0.3139	*1.0
Boron (B)	mg/L	<0.050	0.75
Cadmium (Cd)	mg/L	<0.001	*0.01
Chromium (Cr)	mg/L	<0.002	*0.05
Cobalt (Co)	mg/L	<0.002	0.05
Copper (Cu)	mg/L	<0.002	1.0
Cyanide (CN)	mg/L	<0.005	0.2
Fluoride (F)	mg/L	0.64	*1.6
Iron (Fe)	mg/L	0.5315	1.0
Lead (Pb)	mg/L	<0.011	*0.05
Manganese (Mn)	mg/L	0.1510	0.2
Molybdenum (Mo)	mg/L	<0.002	1.0
Mercury (Hg)	mg/L	<0.002	*0.002
Nickel (Ni)	mg/L	<0.006	0.2
Selenium (Se)	mg/L	<0.004	*0.05
Silver (Ag)	mg/L	<0.003	*0.05
<u>Inorganic</u>			
Sodium (Na)	mg/L	21.94	--
Calcium (Ca)	mg/L	31.97	--
Magnesium (Mg)	mg/L	6.108	--
Potassium (K)	mg/L	3.371	--
Carbonate	mg/L	0.90	--
Bicarbonate	mg/L	168	--
Sulfate	mg/L	2.4	600.0
Chloride	mg/L	53.2	250.0
TDS	mg/L	226	1000.0

Notes:

1. mg/L :

2. < :

3. -- :

4. * :

Analyses performed by Environmental Lab of Texas, Inc., Odessa, Texas

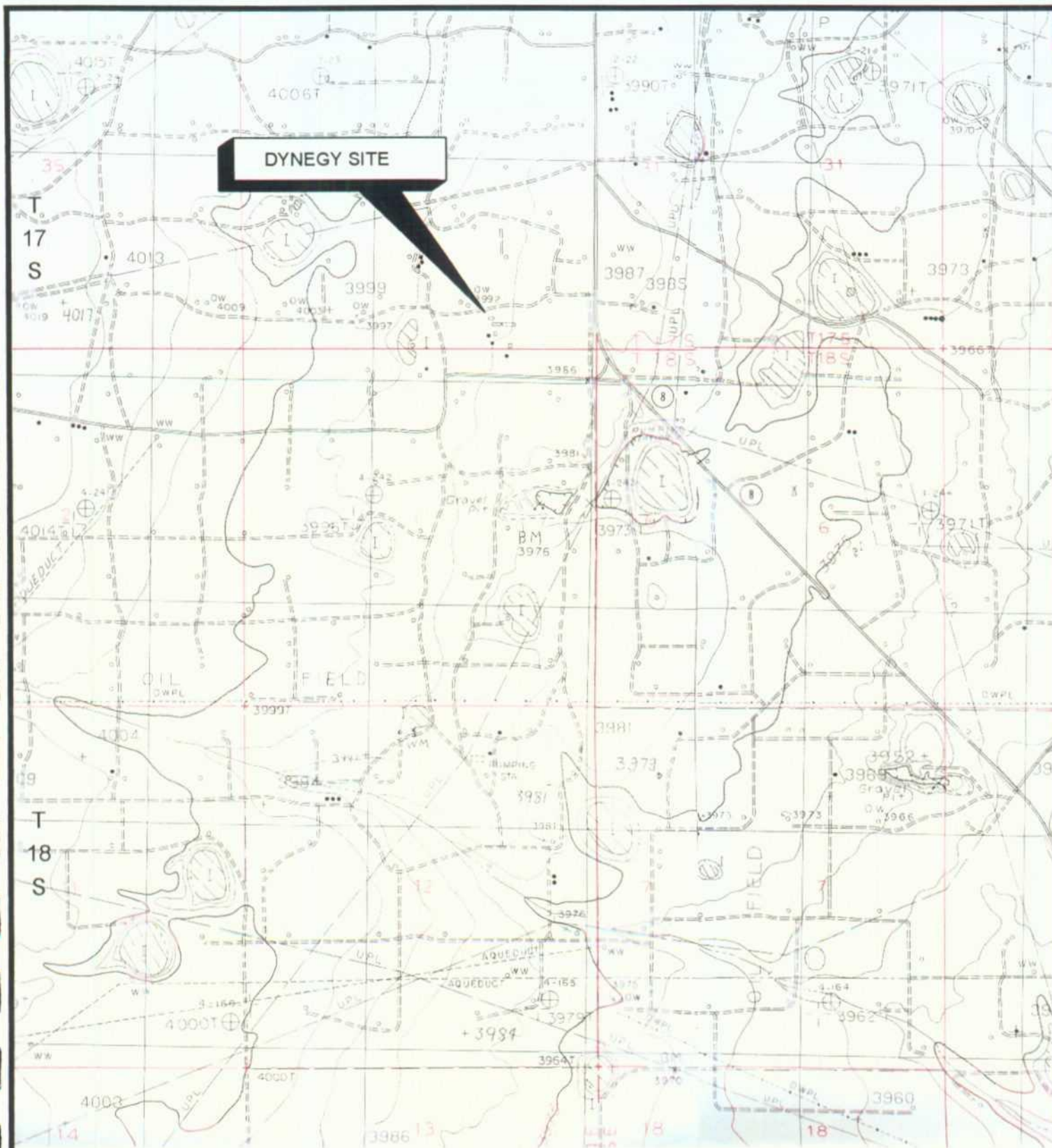
Milligram per liter

Concentration less than test method detection limit

No standard available

Human health standard

FIGURES



R-34-E

R-35-E

FIGURE #1

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.
BUCKEYE COMPRESSOR STATION

TOPOGRAPHIC MAP

SE/4, SE/4, SEC. 36, T-17-S, R-34-E

TAKEN FROM U.S.G.S.

BUCKEYE & LOVING SW, NEW MEXICO 1985

7.5' QUADRANGLES



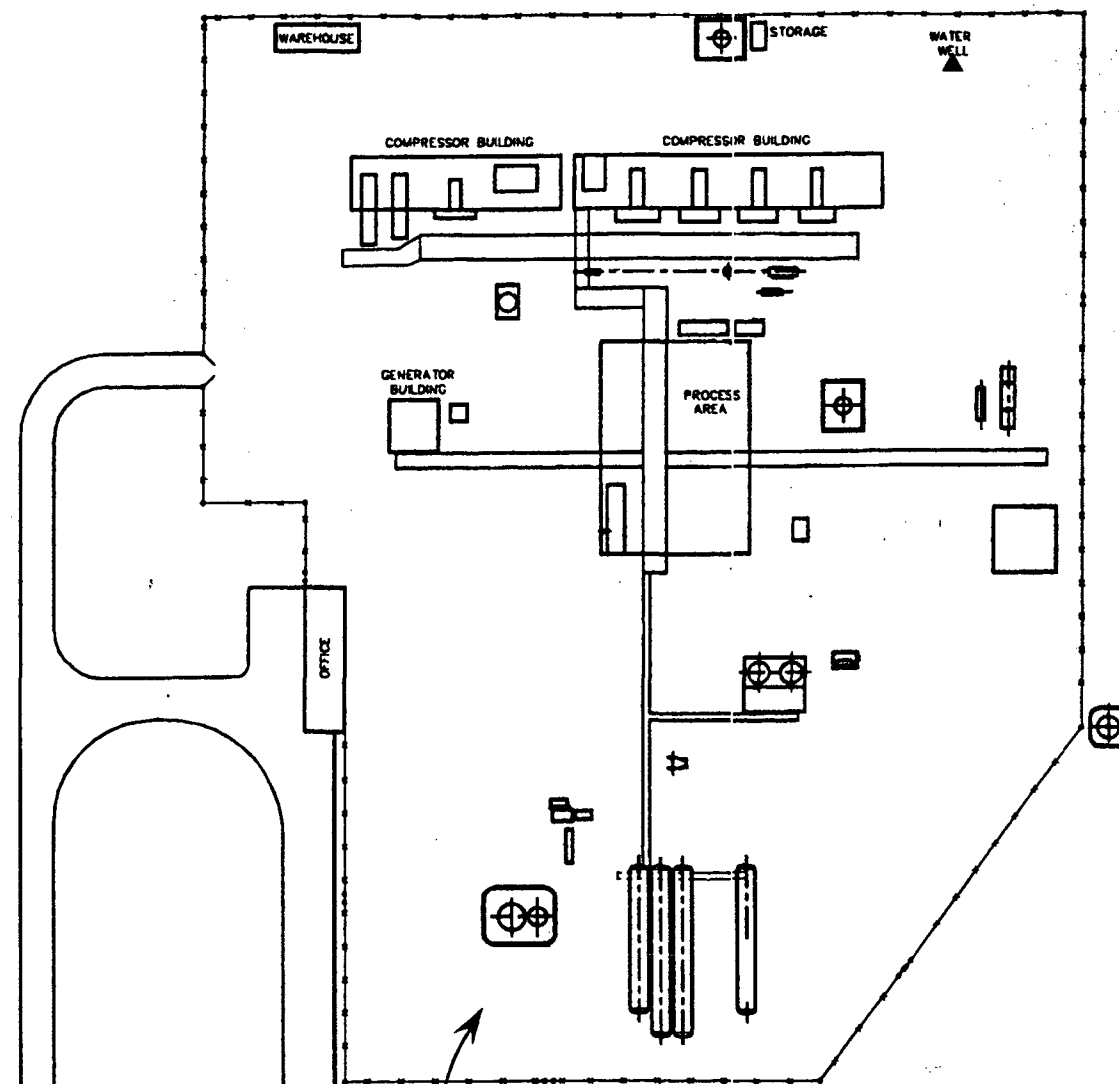
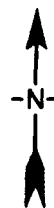
SCALE: 1"=2000'

DATE: 07/06/01

NAME:

FILE:

Larson &
Associates, Inc.
Environmental Consultants



STORMWATER CONTAINMENT
SEE FIGURE 3 for DETAIL

LSE ROAD

TO COUNTY ROAD 238

LEGEND

▲ WATER WELL LOCATION

0 50
Scale in Feet

FIGURE #2

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.

BUCKEYE COMPRESSOR STATION

FACILITY DRAWING

DATE: 04/04/01
NAME:
FILE: 00-0102

Larson &
Associates, Inc.
Environmental Consultants

Texaco E & P Inc.
CO₂ Plant
Machine Shop

Dynegy Midstream Services, L.P.
Buckeye Compressor Station
Lea County, New Mexico

Fence

Stormwater Retention Berm



FIGURE #3

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICE L.P.

BUCKEYE COMPRESSOR STATION

STORMWATER RETENTION BERM

DATE: 04/04/01

NAME:

FILE:

00-0102



Laarson & Associates, Inc.
Environmental Consultants

APPENDIX A

NMOCD Correspondence



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury
Cabinet Secretary

February 9, 2001

Lori Wrotenbery

Director

Oil Conservation Division

CERTIFIED MAIL

RETURN RECEIPT NO. 337 7026

Mr. Cal Wrangham
Dynergy Midstream Services, L.P.
6 Desta Drive Suite 3300
Midland, Texas 79705

RE: Discharge Plan Renewal GW-029
Dynergy Midstream Services, L.P.
Buckeye Gas Compressor Station
Lea County, New Mexico

Dear Mr. Wrangham:

The groundwater discharge plan renewal GW-029 for the Dynergy Midstream Services, L.P. Buckeye Compressor Station located in the NE/4 SE/4 and SW/4 SW/4 of Section 36, Township 17 South, Range 34 East and NE/4 NE/4 of Section 1, Township 18 South, Range 34 East, NMPM, Lea County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 working days of receipt of this letter.**

The original discharge plan application was submitted on June 25, 1985 and approved on January 16, 1986 with an expiration date of January 15, 1991. The discharge plan renewal application dated October 09, 2000 including attachments, submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals.

The discharge plan is renewed pursuant to Section 3109.C. Please note Section 3109.G., which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve Dynergy Midstream Services, L.P. of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does it relieve Dynergy Midstream Services, L.P. of its responsibility to comply with any other governmental authority's rules and regulations.

Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3104. of the regulations requires that "when a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C., Dynegy Midstream Services, L.P. is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.H.4., this approval is for a period of five years. **This approval will expire January 15, 2006** and an application for renewal should be submitted in ample time before that date. Pursuant to Section 3106.F. of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved.

The discharge plan application for the Dynegy Midstream Services, L.P.. Buckeye Compressor Station is subject to the WQCC Regulation 3114. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of \$100.00 (\$50.00 if filed before January 15, 2001) plus a flat fee of \$1700.00 for natural gas compressor stations with horsepower ratings above 1001 horsepower. The OCD has not received the \$1700.00 flat fee. The flat fee of may be paid in a single payment due on the date of the discharge plan approval or in five equal installments over the expected duration of the discharge plan. Installment payments shall be remitted yearly, with the first installment due on the date of the discharge plan approval and subsequent installments due on this date of each calendar year.

Please make all checks payable to: **Water Quality Management Fund**
C/o: Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505.

If you have any questions, please contact Wayne Price of my staff at (505-827-7155). On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,



Roger C. Anderson
Environmental Bureau Chief

RCA/lwp
Attachment-1
Xc: OCD Hobbs Office

ATTACHMENT TO THE DISCHARGE PLAN GW-029 APPROVAL
Dynegy Midstream Services, L.P., Buckeye Compressor Station
DISCHARGE PLAN APPROVAL CONDITIONS
February 9, 2001

1. Payment of Discharge Plan Fees: The \$50.00 filing fee has been received by the OCD. There is a required flat fee of \$1700.00 for natural gas compressor stations with horsepower ratings above 1001 horsepower. The flat fee required for this facility may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan, with the first payment due upon receipt of this approval. The filing fee is payable at the time of application and is due upon receipt of this approval.
2. Commitments: Dynegy Midstream Services, L.P. will abide by all commitments submitted in the discharge plan renewal application dated October 09, 2000 including attachments, and these conditions for approval.
3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
4. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
5. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
6. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
7. Labeling: All tanks, drums, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.

8. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must be tested to demonstrate their mechanical integrity no later than June 15, 2001 and every year from tested date, thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD by July 31, 2001.
9. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity no later than June 15, 2001 and every 5 years, from tested date, thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD by July 31, 2001.
10. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected daily to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices will be emptied of fluids within 48 hours of discovery.
12. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116. And WQCC 1203. to the OCD Hobbs District Office.
13. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.

14. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections. As a result of the inspection conducted by OCD on November 20, 2000 (copy enclosed) the following action items shall be addressed by July 31, 2001.

1. Please address the oil stain areas shown in pictures #2 and #4.
2. It was generally noted that the housekeeping in and around the plant area is in need of attention. Please address this issue.

15. Storm Water Plan: Dynegy Midstream Services, L.P. will submit a stormwater run-off plan for OCD approval by July 31, 2001.

16. Vadose Zone and Water Pollution: The previously submitted investigation and remediation plans were submitted pursuant to the discharge plan and all future discoveries of contamination will be addressed through the discharge plan process.

Dynegy shall collect a water sample from the on-site water well. This well shall be purged, sampled and analyzed for Volatile Organics (EPA method 8260), Semi-Volatile Organics (EPA method 8270), General chemistry, total dissolved solids, pH (EPA method CFR 40 136.3) and New Mexico Water Quality Control Commission (WQCC) metals, all using EPA approved methods and quality assurance/quality control (QA/QC) procedures.

17. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

18. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

19. Certification: **Dynegy Midstream Services, L.P.** by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. **Dynegy Midstream Services, L.P.** further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by: **Dynegy Midstream Services, L.P.**

Company Representative- print name

Company Representative- Sign

Title

APPENDIX B

Photographs

**DYNEGY MIDSTREAM SERVICES, L.P.
BUCKEYE COMPRESSOR STATION
GROUNDWATER DISCHARGE PLAN RENEWAL**



1. North Side of Compressor Building (Looking West)



2. Plant Water Well

DYNEGY MIDSTREAM SERVICES, L.P.
BUCKEYE COMPRESSOR STATION
GROUNDWATER DISCHARGE PLAN RENEWAL



3. Plant Water Well



4. Storm Water Retention Berm (Looking Southwest)

DYNEGY MIDSTREAM SERVICES, L.P.
BUCKEYE COMPRESSOR STATION
GROUNDWATER DISCHARGE PLAN RENEWAL



5. Storm Water Retention Berm (Looking East)



6. Storm Water Retention Berm (Looking Southwest)

APPENDIX C

Environmental Lab of Texas, Inc. Report

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON AND ASSOCIATES, INC.
ATTN: MR. MARK LARSON
P.O. BOX 50685
MIDLAND, TEXAS 79710-0685
FAX: 687-0456

Page 1 of 2

Sample Type: Water
Sample Condition: Intact/ Iced/ 4.0 deg. C
Project #: 01-0102
Project Name: Dynegy Midstream Services Buckeye Gas Plant
Project Location: Lea County, N.M.

Sampling Date: 04/04/01
Receiving Date: 04/05/01
Analysis Date: 04/05/01
Field Code: Plant Well

Volatiles EPA SW 846-8260B, (mg/L) Compounds	ELT# 38794	REPORTING LIMIT	%DEV	Method Blank	% EA
Chloromethane	ND	0.0020	15.9	ND	
Vinyl chloride	ND	0.0020	9.1	ND	
Bromomethane	ND	0.0020	0.8	ND	
Chloroethane	ND	0.0020	2.9	ND	
Trichlorofluoromethane	ND	0.0020	18.3	ND	
1,1-Dichloroethene	ND	0.0020	12.3	ND	102
Carbon Disulfide	ND	0.0020	-0.4	ND	
Methylene Chloride	ND	0.0050	12.1	ND	
trans-1,2-Dichloroethene	ND	0.0020	-5.3	ND	
1,1-Dichloroethane	ND	0.0020	12.3	ND	
2-Butanone	ND	0.0100	-0.6	ND	
cis-1,2-dichloroethene	ND	0.0020	-3.8	ND	
Bromochloromethane	ND	0.0020	-3.5	ND	
Chloroform	ND	0.0020	-3.1	ND	
1,1,1-Trichloroethane	ND	0.0020	-5.3	ND	
Carbon Tetrachloride	ND	0.0020	-0.5	ND	
Benzene	0.0558	0.0020	-1.1	ND	112
1,2 Dichloroethane	ND	0.0020	-16.3	ND	
Trichloroethene	ND	0.0020	-3.0	ND	94
1,2-Dichloropropane	ND	0.0020	2.5	ND	
Dibromomethane	ND	0.0020	-8.4	ND	
Bromodichloromethane	ND	0.0020	-7.6	ND	
2-Hexanone	ND	0.0100	-14.0	ND	
4-Methyl 2-Pentanone	ND	0.0100	-8.0	ND	
cis 1,3 Dichloropropene	ND	0.0020	-0.3	ND	
Toluene	ND	0.0020	12.2	ND	109
trans 1,3-Dichloropropene	ND	0.0020	-3.4	ND	
1,1,2-Trichloroethane	ND	0.0020	-3.7	ND	
Dibromochloromethane	ND	0.0020	-12.7	ND	

LARSON AND ASSOCIATES, INC.
ATTN: MR. MARK LARSON
P.O. BOX 50685
MIDLAND, TEXAS 79710-0685
FAX: 687-0456

Page 2 of 2

Sample Type: Water
Sample Condition: Intact/ Iced/ HCl/ 4.0 deg. C
Project #: 01-0102
Project Name: Dynegy Midstream Services Buckeye Gas Plant
Project Location: Lea County, N.M.

Sampling Date: 04/04/01
Receiving Date: 04/05/01
Analysis Date: 04/05/01
Field Code: Plant Well

Volatiles EPA SW 846-8260B, (mg/L) Compounds	ELT# 38794	REPORTING LIMIT	%DEV	Method Blank	% EA
Tetrachloroethene	ND	0.0020	-4.4	ND	112
Chlorobenzene	ND	0.0020	-9.6	ND	
1,1,1,2-Tetrachloroethane	ND	0.0020	-15.1	ND	
Ethylbenzene	ND	0.0020	-8.1	ND	
m&p Xylene	ND	0.0020	4.8	ND	
o-Xylene	ND	0.0020	-9.4	ND	
Bromoform	ND	0.0020	-18.7	ND	
1,1,2,2-Tetrachloroethane	ND	0.0020	-12.8	ND	
1,2,3-Trichloropropane	ND	0.0020	-16.8	ND	
1,4-Dichlorobenzene	ND	0.0020	-8.1	ND	
1,2-Dichlorobenzene	ND	0.0020	-9.3	ND	
1,2-Dibromo-3-Chloropropane	ND	0.0100	-5.0	ND	

SYSTEM MONITORING COMPOUNDS

% RECOVERY

Dibromofluoromethane	115
Toluene-d8	106
4-Bromofluorobenzene	117
1,2-dichloroethane-d4	102

ND= <REPORTING LIMIT

Raland K Tuttle
Raland K. Tuttle

4-23-01
Date

ENVIRONMENTAL

LAB OF , INC.

LARSON AND ASSOCIATES, INC.

ATTN: MR. MARK LARSON

P.O. BOX 50685

MIDLAND, TEXAS 79710-0685

FAX: 687-0456

"Don't Treat Your Soil Like Dirt"

Sample Type: Water

Sample Condition: Intact/ Iced/ 4.0 deg. C

Project #: 01-0102

Project Name: Dynegy Midstream Services Buckeye Gas Plant

Project Location: Lea County, N.M.

ELT# 38794

Sampling Date: 04/04/01

Receiving Date: 04/05/01

Analysis Date: 04/11/01

EPA 8270 COMPOUNDS	Reporting Limit	Plant Well Concentration mg/L	%DEV	RPD	% EA
N-Nitrosodimethylamine	0.005	ND	99.1#		
Aniline	0.005	ND	-15.2		
Phenol	0.005	ND	11.5	5	66
Bis (2-chloroethyl)ether	0.005	ND	-16.0		
2-Chlorophenol	0.005	ND	-15.7	2	93
1,3-Dichlorobenzene	0.005	ND	4.1		
1,4-Dichlorobenzene	0.005	ND	5.4	4	95
1,2-Dichlorobenzene	0.005	ND	5.9		
Benzyl Alcohol	0.005	ND	5.8		
Bis (2-chloroisopropyl) ether	0.005	ND	13.4		
2-Methylphenol	0.005	ND	7.8		
n-Nitroso-di-n-propylamine	0.005	ND	-6.7	3	78
4-Methylphenol	0.005	ND	18.7		
Hexachloroethane	0.005	ND	15.9		
Nitrobenzene	0.005	ND	1.5		
Isophorone	0.005	ND	14.6		
2-Nitrophenol	0.005	ND	8.7		
2,4-Dimethylphenol	0.005	ND	4.9		
Bis (2-chloroethoxy) methar	0.005	ND	2.7		
2,4-Dichlorophenol	0.005	ND	13.7		
Benzoic acid	0.005	ND	6.4		
1,2,4-Trichlorobenzene	0.005	ND	-18.2	9	105
Naphthalene	0.005	ND	7.0		
4-Chloroaniline	0.005	ND	12.7		
Hexachlorobutadiene	0.005	ND	-10.2		
4-Chloro-3-methylphenol	0.005	ND	-2.4	0	79
2-Methylnaphthalene	0.005	ND	4.2		
Hexachlorocyclopentadiene	0.005	ND	-69.1#		
2,4,6-Trichlorophenol	0.005	ND	-6.3		
2,4,5-Trichlorophenol	0.005	ND	3.4		
2-Chloronaphthalene	0.005	ND	-1.1		
2-Nitroaniline	0.005	ND	-0.9		
Dimethylphthalate	0.005	ND	2.7		
2,6-Dinitrotoluene	0.005	ND	-7.1		

EPA 8270 COMPOUNDS	Reporting Limits	Concentration mg/L	%DEV	RPD	%EA
Acenaphthylene	0.005	ND	7.8		
3-Nitroaniline	0.005	ND	14.7		
Acenaphthene	0.005	ND	4.8	16	66
2,4-Dinitrophenol	0.005	ND	4.5		
4-Nitrophenol	0.005	ND	14.1	8	88
Dibenzofuran	0.005	ND	-14.8		
2,4-Dinitrotoluene	0.005	ND	-18.8	3	99
Diethylphthalate	0.005	ND	10.8		
Fluorene	0.005	ND	-3.9		
4-Chlorophenyl phenyl ether	0.005	ND	3.9		
4-Nitroaniline	0.005	ND	6.7		
Azobenzene	0.005	ND	15.0		
4,6-Dinitro-2-methylphenol	0.005	ND	-10.6		
n-Nitrosodiphenylamine	0.005	ND	3.5		
4-Bromophenyl phenyl ether	0.005	ND	-4.4		
Hexachlorobenzene	0.005	ND	15.1		
Pentachlorophenol	0.005	ND	-18.4	3	104
Phenanthrene	0.005	ND	7.3		
Anthracene	0.005	ND	6.9		
Carbazole	0.005	ND	0.7		
Di-n-butylphthalate	0.005	ND	3.6		
Fluoranthene	0.005	ND	-16.4		
Benidine	0.005	ND	6.9		
Pyrene	0.005	ND	5.1	9	55
Butylbenzylphthalate	0.005	ND	8.2		
Benzo {a} anthracene	0.005	ND	9.5		
3,3'-Dichlorobenzidine	0.005	ND	-19.6		
Chrysene	0.005	ND	0.3		
Bis (2-ethylhexyl) phthalate	0.005	ND	8.0		
Di-n-octylphthalate	0.005	ND	0.7		
Benzo {b} fluoranthene	0.005	ND	7.1		
Benzo {k} fluoranthene	0.005	ND	-19.1		
Benzo {a} pyrene	0.005	ND	-2.3		
Indeno (1,2,3-c,d) pyrene	0.005	ND	-0.8		
Dibenzo {a,h} anthracene	0.005	ND	3.3		
Benzo {g,h,i} perylene	0.005	ND	-2.6		

SURROGATES

% RECOVERY

2-Fluorophenol SURR	70
Phenol-d5 SURR	56
Nitrobenzene-d5 SURR	60
2-Fluorobiphenyl SURR	100
2,4,6-Tribromophenol SURR	70
Terphenyl-d14 SURR	90

Method: SW 846-8270C

Roland K. Tuttle
 Roland K. Tuttle

4-23-01
 Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON AND ASSOCIATES, INC.
ATTN: MR. MARK LARSON
P.O. BOX 50685
MIDLAND, TEXAS 79710-0685
FAX: 687-0456

Sample Type: Water
Sample Condition: Intact/ Iced/ HCl/ 4.0 deg. C
Project #: 01-0102
Project Name: Dynegy Midstream Services Buckeye Gas Plant
Project Location: Lea County, N.M.

Sampling Date: 04/04/01
Receiving Date: 04/05/01
Analysis Date: 04/12/01
Analysis Date: Hg 04/13/01

DISSOLVED METALS (mg/L)

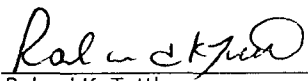
ELT #	Field Code	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
38794	Plant Well	ND	ND	0.3139	ND	ND	ND	ND	ND

REPORT LIMIT	0.003	0.008	0.001	0.001	0.002	0.002	0.011	0.004
--------------	-------	-------	-------	-------	-------	-------	-------	-------

% IA	98	101	100	100	101	100	100	101
% EA	101	104	89	103	100	101	112	88
BLANK	<0.003	<0.008	<0.001	<0.001	<0.002	<0.002	<0.011	<0.004

METHODS: EPA SW 846-3005, 7470, 6010B

ND=Not detected @ report limit.


Raland K. Tuttle

7-5-01
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON AND ASSOCIATES, INC.
ATTN: MR. MARK LARSON
P.O. BOX 50685
MIDLAND, TEXAS 79710-0685
FAX: 687-0456

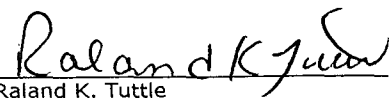
Sample Type: Water
Sample Condition: Intact/ Iced/ 4.0 deg C
Project #: 01-0102
Project Name: Dynegy Midstream Services Buckeye Gas Plant
Project Location: Lea County, N.M.

Sampling Date: 04/04/01
Receiving Date: 04/05/01
Analysis Date: 04/11/01

ELT#	FIELD CODE	Fluoride mg/L	Cyanide mg/L
38794	Plant Well	0.64	<0.005

QUALITY CONTROL	1.01	0.098
TRUE VALUE	1.00	0.100
% IA	101	98
BLANK	<0.02	<0.005

METHODS: EPA 340.1, 335.3


Raland K. Tuttle

4-23-01
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON AND ASSOCIATES, INC.
ATTN: MR. MARK LARSON
P.O. BOX 50685
MIDLAND, TEXAS 79710-0685
FAX: 687-0456

Sample Type: Water
Sample Condition: Intact/ Iced/ HCl/ 4.0 deg. C
Project #: 01-0102
Project Name: Dynegy Midstream Services Buckeye Gas Plant
Project Location: Lea County, N.M.

Sampling Date: 04/04/01
Receiving Date: 04/05/01
Analysis Date: 04/12/01

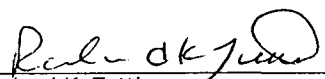
DISSOLVED METALS (mg/L)

ELT#	Field Code	Cu	Fe	Mn	Al	B	Co	Mo	Ni
38794	Plant Well	ND	0.5315	0.1510	0.1537	ND	ND	ND	ND

REPORT LIMIT	0.002	0.002	0.001	0.002	0.050	0.002	0.002	0.006
% IA	101	98	99	101	110	100	100	100
% EA	91	92	96	125	120	100	100	101
BLANK	<0.002	<0.002	<0.001	<0.002	<0.050	<0.002	<0.002	<0.006

METHODS: EPA SW 846-3005, 6010B, EPA 200.7

ND=Not detected @ report limit.


Raland K. Tuttle

7-5-01
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON AND ASSOCIATES, INC.
ATTN: MR. MARK LARSON
P.O. BOX 50685
MIDLAND, TEXAS 79710-0685
FAX: 687-0685

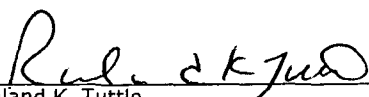
Sample Type: Water
Sample Condition: Intact/ Iced/ 4.0 deg. C
Project #: 01-0102
Project Name: Dynegy Midstream Services Buckeye Gas Plant
Project Location: Lea County, N.M.

Sampling Date: 04/04/01
Receiving Date: 04/05/01
Analysis Date: 04/18/01

ELT #	FIELD CODE	Na mg/L	Ca mg/L	Mg mg/L	K mg/L
38794	Plant Well	21.94	31.97	6.108	3.371

% INSTRUMENT ACCURACY	91	102	102	105
% EXTRACTION ACCURACY	84	100	108	84
BLANK	<0.01	<0.01	<0.001	<0.05

METHODS: SW846-6010B


Raland K. Tuttle

4-23-01
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

LARSON AND ASSOCIATES, INC.
ATTN: MR. MARK LARSON
P.O. BOX 50685
MIDLAND, TEXAS 79710-0685
FAX: 687-0456

Sample Type: Water
Sample Condition: Intact/ Iced/ 4.0 deg C
Project #: 01-0102
Project Name: Dynegy Midstream Services Buckeye Gas Plant
Project Location: Lea County, N.M.

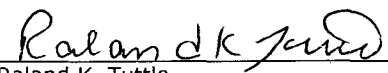
Sampling Date: 04/04/01
Receiving Date: 04/05/01
Analysis Date: See Below

ELT#	FIELD CODE	Carbonate mg/L	Bicarbonate mg/L	Sulfate mg/L	Chloride mg/L	TDS mg/L
38794	Plant Well	0.90	168	2.4	53.2	226

QUALITY CONTROL	*	*	47.7	5052	*
TRUE VALUE	*	*	50.0	5000	*
% IA	*	*	95	101	*
BLANK	<0.5	<2	<0.5	<10	<10

ANALYSIS DATE	4/17/01	4/17/01	4/11/01	4/10/01	4/10/01
---------------	---------	---------	---------	---------	---------

METHODS: EPA 310.1, 375.4, 325.3, 160.1


Raland K. Tuttle

4-23-01
Date

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: Pyrex Hydrogen Services
Buckeye Gas Plant

Project Manager:

Mark Lanoce

Company Name

Larson and Associates, Inc.

Company Address:

P.O. Box 50635

City/State/Zip:

Mid band, 79710-0685

Telephone No:

Fax No: (915) 687-0456

Sampler Signature:

10

Sampler Signature: _____ LAB # (lab use only) 38794 Plant well FIELD CODE		Date Sampled 4/6/01	Time Sampled 1540	No. of Containers 2	Preservative										Matrix				Analyze For: TCLP TOTAL:		RUSH TAT (Pre-Schedule) Standard TAT		
					Ice	HNO ₃	HCl	NaOH	H ₂ SO ₄	None	Other (Specify)	Water	Sludge	Soil	Other (specify)	TDS / CL / SAR / EC	TPH 418 I	TPH TX 1005/1006				TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se
Special Instructions: Sag. attached list for metals		Received by:		Received by:		Date	Date															Sample Containers Intact? Temperature Upon Receipt Laboratory Comments: Rec 4.0°C	
		Relinquished by: _____		Relinquished by: _____		Date	Date																
		Relinquished by: _____		Relinquished by: _____		Date	Date																
		Relinquished by: _____		Relinquished by: _____		Date	Date																
		Relinquished by: _____		Relinquished by: _____		Date	Date																

APPENDIX D

Correspondence and Meeting/Conversation Notes (Pertaining to Groundwater Impact at Buckeye Gas Plant)



State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

STATE OF
NEW MEXICO
OIL
CONSERVATION
DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone	☐ Personal	Time 0808	Date 6/4/98
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Originating Party	Other Parties
Robert Browning - Texaco (915) 688-4804	Bill Olson - Environmental Bureau Voice mail

SUBJECT
Texaco - Buckeye Gas Plant Ground Water Notification

Discussion
Plant tested their water well
Contaminated with benzene = 0.23 ppm

Conclusions or Agreements

Distribution

Signed Bill Olson

File
Wayne Price - OGD Hibbs



State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

STATE OF
NEW MEXICO
OIL
CONSERVATION
DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone

☐ Personal

Time 0820

Date 6/4/98

Originating Party

Other Parties

Bill Olson - Environmental Bureau

Robert Barrad - Texaco

voice mail

Subject

Texaco - Buckeye Gas Plant

Discussion

left message that Texaco needs to file written
report within 15 days
OCD will require investigation / remediation

Conclusions or Agreements

Distribution

file

Signed

Bill Olson

1st - Mr. Hall



Texaco E & P

205 E. Bender Blvd.
Hobbs NM 88240
505 393 7191

Date: 6-12-98

Wayne Price
Environmental Engineer
State of New Mexico
Energy and Minerals Department
Oil Conservation Division

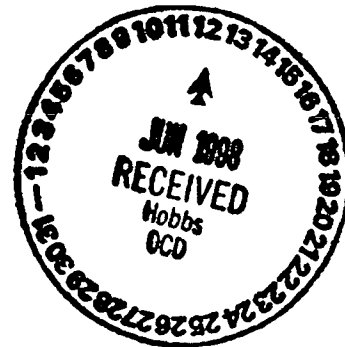
Subject: Ground Water Contamination at Texaco Buckeye Gas Plant
Sec. 1, T- 18S, R- 34E

June 5, 1998 the water well at the Texaco Buckeye Gas Plant was sampled. The results showed the Benzene levels were higher than New Mexico Water Quality Commission Standards. Texaco will submit a work plan to the NMOCD for ground water clean up in this area.

If you have any additional questions please me at 505-397-0422.

Sincerely,

Rodney Bailey
EHS Professional
Texaco, Denver Division



cc: CHRIS WILLIAMS



Roy W Hamilton
Manager
Gas Department
Denver Division

Texaco Exploration and
Production Inc

4601 DTC Blvd
Denver CO 80237

P O Box 46535
Denver CO 80201-6535

303 793 4880
FAX 303 793 4935
FAX 303 793 4612

June 30, 1998

Mr. Bill Olson
Hydrologist
Environmental Bureau
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Dear Mr. Olson,

On June 4, 1998, Mr. Robert Browning telephoned notice of possible groundwater impacts at Texaco Exploration & Production Inc.'s (TEPI) Buckeye Gas Plant. This was followed up on June 12, 1998 with written notification to the Oil Conservation Division's Hobbs office. Several lab samples of the water from the plant's water well showed levels of benzene in excess of the State standards. TEPI is now in the process of reviewing the data and investigating the source.

We understand there has been a history of problems with oil and gas produced water disposal wells in the vicinity of the Buckeye Gas Plant. The source of the benzene found in our fresh water well is not clear. There have been several investigations, data gathering and reports on this matter. We are currently in the process of obtaining this material for review. In addition, we are pursuing additional sampling that may "fingerprint" the source of the contamination in our water well. We will keep you posted on our progress and investigation plans. We should have this completed by September 1, 1998.

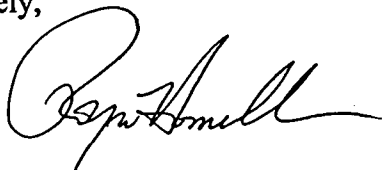
As you may be aware, TEPI and Dynegy (formerly NGC/Warren Corp.) are merging our respective gas processing assets in Lea County. We are forming a joint-venture company to be called Versado Gas Processors, L.L.C. The Buckeye Gas Plant will be part of this joint-venture. As part of our joint-venture agreement, Texaco will be responsible for most environmental issues resulting from Texaco operations prior to the formation of the joint-venture. This includes the Buckeye Gas Plant groundwater investigation. This joint-venture does not include the Texaco oil and gas producing operations based out of Hobbs, New Mexico.

TEPI 303 793 4880

We are currently in transition to the new company. Both Texaco and Dynegy key personnel are leaving to assume employment with Versado, others are retiring, and still others are transferring back to the parent companies. Over the next 60-90 days, we should have our final staff in place. Since Texaco Gas Plants Operating Unit will no longer have any offices in the Eunice-Hobbs areas, the Buckeye groundwater investigation as well as the ongoing Eunice North and South investigation and remediation work will be coordinated out of our Denver office.

Thank you for your consideration. If you have any questions or require any further information, please contact Mr. Robert W. Foote at 303-793-4959.

Sincerely,

A handwritten signature in dark ink, appearing to read "Roy W. Hamilton". The signature is fluid and cursive, with the first name "Roy" being the most prominent.

Roy W. Hamilton
Gas Plant Operating Unit Manager

Cc: Wayne Price, OCD Hobbs District Office





PO Box 730
Hobbs NM 88241 0730
505 393 7191

Water Pollution Control Permits
Buckeye Gas Processing Plant

January 9, 1996

Mr. Mark Ashley
New Mexico Oil Conservation Division
PO Box 2088
Santa Fe, NM 87504-2088

RECEIVED

JAN 10 1996

Environmental Bureau
Oil Conservation Division

Dear Mr. Ashley,

Enclosed is Texaco Exploration and Production Inc.'s Buckeye Gas Processing Plant's Groundwater Discharge Plan.

There has been no significant changes at the plant since the submission of the last plan.

Please feel free to call me at (505)-393-4031 if you require additional information.

Sincerely,

Terry Frazier
Operating Unit Manager
Hobbs Operating Unit

cc: file
Plant

GROUNDWATER DISCHARGE PLAN

Texaco EXPLORATION & PRODUCTION

BUCKEYE GAS PROCESSING PLANT

LEA COUNTY, NEW MEXICO

January 16, 1996

I. GENERAL INFORMATION

A. Name of Discharge or Legally Responsible Party.

Texaco Exploration and Production Inc.'s Buckeye Gas Processing Plant
West Star Route, Box 425
Lovington, NM 88260
Phone: (505) 396-4916

B. Name of Local Representative or Contact Person

Plant Superintendent: C.D. Tramell
(Same as Above)

EH&S Coordinator: R.K. Humphrey
Texaco Exploration and Production Inc.
West Star Route, Box 423
Lovington, NM 88260
Phone: (505) 393-4031
MOBILE: (505) 369-5572

C. Location of Discharge

WE/4, SE/4 and SW/4, SW/4, Section 36, Township 17 South, Range 34 East
and NE/4, NE/4 and SW/4, NE/4, Section 1, Township 18 South, Range 34
East, Lea County, NM.

A topographic map and a facility plot plan are included in Appendix 4.

D. Type of Natural Gas Operation

The plant is cryogenic natural gas processing plant designed to process 22.5 million cubic feet per day. At present the plant is processing approximately 8-9 million cubic feet per day and producing about 1650 barrels of demethanized product (ethane, propane, butanes, pentanes, and heavier).

E. Affirmation

"I hereby certify that I am familiar with the information contained in and submitted with this application and that such information is true, accurate, and complete to the best of my knowledge and belief."

Signature: C. D. Tramell

Date: 1-9-96

Printed Name: C. D. Tramell

Title: Plant Superintendent

II. PLANT PROCESS

A. Sources and Quantities of Effluent and Process Fluids

1. **Scrubbers and Separators:** The plant utilizes inlet and discharge scrubber son each compressor and one high pressure separator between compression and cryogenic processing. The scrubber water may typically be high in Total Dissolved Solids (TDS) and may contain dissolved hydrocarbons. (The laboratory analysis for the high pressure separator water is included in the attached Appendix 2.)

The combined flow from the inlet scrubbers, discharge scrubbers and the high pressure separator is approximately 633 gallons per day.

There are no known additives in the scrubber water or the high pressure separation water.

2. **Boilers:** The Buckeye Gas Processing Plant does not utilize boilers in its operations
3. **Engine Cooling Water:** Each engine has it s own closed cooling water system. The water contains and ethylene glycol based antifreeze and Unichem 2310 corrosion inhibitor. The Material Safety Data Sheet (MSDS) for Unichem 2310 corrosion inhibitor is enclosed as part of Appendix 1. The engine coolant is not routinely discharged but should a mechanical failure such as a cracked engine head or ruptured hose occur, the coolant would be discharged to the oil/water separator.
4. **Cooling Tower:** The cooling tower water is continuously discharged to the oil/water separator discharge line through a 1" buried line. The discharge rate range will vary from 10,000 gallons per day to 16,500 gallons per day. The discharge water can be expected to contain high TDS. The water may contain any of the following additives:

The MSDS's are enclosed as part of Appendix 1.

5. **Sewage:** The sewage system at the Buckeye Gas Processing Plant consists of a septic tank and lateral lines. This system is completely separate from and independent of all other plant waste systems.
6. **Others:**

- a) Used engine oil: Used engine oil is drained to a sump and then through the process wastewater discharge lines to the oil/water separator where it is reclaimed, along with other slop oils, and pumped to storage. The oil is then sold to Texaco Trading and Transportation Inc. for reintroduction into crude oil supply. The only engine oil additive used by the plant is Champion Products, Inc.'s Qx with Moly. The MSDS is enclosed as a part of Appendix 1.
- b) Equipment Cleaning Solution: The plant uses a mixture of water and Crain Chemical Company's RL-1260 Industrial Cleaner for engine and equipment cleaning. This cleaner is a biodegradable cleansing agent. The MSDS is enclosed as a part of Attachment 1. The combined used engine oil and equipment cleaning solution discharged is approximately 20 gallons per day.
- c) Water Softener Wastewater: The water softener wastewater can be expected to be high in TDS and sodium chloride as a result of the regeneration process. The average discharge to the oil/water separator is 167 gallons per day.

B. Quality Characteristics

All plant wastewater, except cooling tower blowdown, high pressure scrubber water and a small amount (5 gal/day) of water from the flare knockout drum, are commingled at the oil/water separator. (See the Wastewater Block Flow Diagram included in Appendix 3.) All wastewater transfer, storage and collection units are constructed of either reinforced concrete or steel piping therefore minimizing any risk of ground water contamination. (See Item #II-C for additional details.)

Because of the low risk of groundwater contamination we have elected to treat all sources discharged into the oil/water separator as a commingled source.

In addition to the oil/water separator, the high pressure separator, the cooling tower blowdown and the plants fresh water well were sampled for analyses.

1. VOC's; EPA 600/4-79-02; EPA SW 846-8270: See the laboratory analyses included in Appendix 2.
2. Benzene, Ethylbenzene, Toluene, Meta-Ortho-Para Xylenes: See the laboratory analyses included in Appendix 2.
3. WQCC Section 3-103 Parameters: See the laboratory analyses included in Appendix 2.

4. WQCC 1-101.uu: Since this facility does not manufacture chemical compounds (including herbicides, pesticides and chlorinated hydrocarbons) we would expect to find only those hydrocarbon compounds that are naturally occurring such as benzene, toluene and xylene. Benzene, toluene, and xylene which have been quantified under item #2 above.
5. Sampling Location, Methods, and Procedures: The sampling locations include the following.

Fresh water well - 1/4" valve at the wellhead.

High pressure separator - 1/4" valve on the water discharge line.

Cooling Tower - 1/4" valve on the circulation pump.

Oil/water separator - 1" valve on the pump discharge line.

All samples were unfiltered grab samples that were preserved and analyzed in accordance with EPA SW 846 and/or Standard Methods for the Examination of Water and Wastewater (17th edition). The samples were then transported, on ice, to Cardinal Laboratories, Inc. in Hobbs, NM for analysis.

6. Variability in Flow Rates and Concentration: During normal operations we anticipate no significant fluctuations in flow rate or concentration in the plant effluents. However, if there is a mechanical malfunction at off-site gas gathering locations there is a possibility of increased volumes of produced water and oil following to the plant. We would not anticipate an increase in concentration.

C. Transfer and Storage of Process Fluids and Effluents

1. Water and Wastewater Flow Schematics: See Wastewater Block Flow Diagram in Appendix 3.
2. Description of Equipment Associated with Wastewater Production and Handling.
 - a) Inlet Scrubber #1 - The inlet scrubber is a pressurized vessel which discharges automatically into the drain system. The dump line is connected to the drain lines with a solid connection. The dump line constructed of 2" schedule 80 carbon steel pipe (.218 wall thickness) and goes into a 4" schedule 40 carbon steel drain pipe (.237 wall

thickness). The drain lines and a portion of these dump lines are buried. The fluids drain into the oil/water separation pit which will be discussed later. All drain lines are 30 years old.

- b) Inlet Scrubber #2 - The inlet scrubber is a pressurized vessel which discharges automatically into the slop oil tanks. The discharge line is constructed of schedule 80 carbon steel pipe and has a solid connection to a 5" schedule 40 carbon steel pipe which is connected to the slop oil tank. The vessel also has an emergency discharge line which is constructed of 2" schedule 80 carbon steel pipe which is reduced to a 1" carbon steel line. This line is normally closed and is opened only in an emergency.
- c) Dehydration Beds Horizontal Scrubber - The horizontal scrubber on the dehydration beds is a pressurized vessel which discharges condensed water through a 1" carbon steel line to a vessel known as the Flash Tank. All except 7' of line is buried.
- d) 1st Stage Discharge Scrubber on #6 Engine - The discharge scrubber is a vessel which separates gas and liquid by gravity. It is a pressurized vessel which discharges liquid to the flash tank through a 1" carbon steel line. All but 4' of this line is buried.
- e) Slop Oil Tanks - The slop oil tanks are standard welded tanks with side thickness of 3/16" and bottom thickness of 1/4". The east tank has a capacity of 250 barrels and is 15' tall. The west tank has a capacity of 250 barrels and is 8' tall. The east tank receives fluid from the flash tank, the #2 inlet scrubber, the oil/water separation pit, and, at times, the #1 inlet scrubber. The water and oil are further separated and the water is drained back to the oil/water separation pit through a 2" schedule 80 carbon steel pipe which eventually is connected to the 4" drain line. The oil is pumped to the west tank which holds only sellable oil. The water which may collect in the west tank is drained back to the oil/water separator via the same drain line as the east tank.
- f) Glycol reconcentrator - The water from the glycol reconcentrator is condensed steam. The water drains by gravity into a small holding pot which is connected to the 4" drain system by a 1" carbon steel line. This is not a pressurized vessel and the drain line is buried.
- g) Water Softener Wash Water - The discharge from the water softener regeneration cycle is piped into a floor drain which is inside the softener building. The piping consists of 1" schedule 40 PVC.

The piping from the floor drain then attaches to the 4" drain system with a solid connection.

- h) 1st Stage Discharge Scrubbers From Other Compressor Engines - All compressor engines, with the exception of #6, have a scrubber on the 1st discharge. These scrubbers separate gas from liquid by means of gravity. The vessels are all pressurized and are discharged automatically. they all discharge into 1" carbon steel lines which go to the 3 phase separator. Water is discharged to the oil/water separator via a 2" carbon steel line which is buried.
- i) 1st Stage Discharge Filter - The filter is a pressurized vessel which automatically discharges liquid to the drain via a 1" carbon steel line. the line is attached to the 3 phase separator. Water is discharged to the oil/water separator via a 2" carbon steel line which is buried.
- j) 2nd Stage Discharge Scrubber - The 2nd Stage scrubbers are pressurized vessels which discharges liquid automatically. They separate liquid and gas by means of gravity. The vessels are all pressurized and are discharged automatically. they all discharge into 1" carbon steel lines which go to the 3 phase separator. Water is discharged to the oil/water separator via a 2" carbon steel line which is buried.
- k) 2nd Stage Discharge Scrubber - The 2nd stage discharge scrubber is a pressurized vessel which discharges liquid automatically. It separates liquid and gas by means of gravity. The vessels are all pressurized and are discharged automatically. they all discharge into 1" carbon steel lines which go to the 3 phase separator. Water is discharged to the oil/water separator via a 2" carbon steel line which is buried.
- l) Engine Room Sump - The sump in the engine room is constructed of reinforced concrete and is an integral part of the concrete slab. Any oil and water which drains off the engines and compressors collects in this sump. the drains are connected with 4" schedule 40 carbon steel pipe. This 4" drain then connects with the 4" drain system. The connection is solid. All water and soap used for cleaning purposes also drains into these sumps.
- m) Engine Blowdown Scrubber - The engine blowdown scrubber is a vessel which drains liquid from the engine blowdown line to the oil/water separation pit. The liquid is carried in a 2" schedule 80 carbon steel pipe all of which is buried with the exception of 6".

- n) 210 Bbl Emergency Waste Water Storage Tank - There is a 4" schedule 40 carbon steel pipe used to pump water from the oil/water separation pit to the 210 bbl tank located just east of the plant fence. this is buried except 2'. There is approximately 10' of 2" schedule 80 carbon steel pipe used to connect the tank to the 4" line. The tank is a standard 210 bbl welded tank. The thickness of the walls and bottom are unknown.
- o) Oil/Water Separator - The oil/water separator basin is constructed of reinforced concrete which has overall dimensions of 10' x 6' x 5.5'. Any produced water which comes into the plant is routed to the separator for separation. All liquids from the above sources gravitate to the basin through the drain system. The water is pumped through a 2" schedule 80 carbon steel pipe to Texaco Producing and Exploration, Inc.'s Vacuum Glorietta West Unit Satellite #3 production separator where it is entered into the production stream to be injected into the water injection wells. The top edge of the separator pit is approximately 10" above grade so there is no rainfall runoff entering the pit. the separator capacity is approximately 2500 gallons.

The plant plans to install a fiberglass tank inside of the concrete oil/water separator. This will enable the plant to install valves on all drain lines for integrity testing and also provide a secondary containment for the fiberglass tank in the event of a rupture. 

- p) High Pressure Separator - The high pressure separator is a pressurized vessel which dumps waterier automatically. The water flows through a 1" carbon steel line to the high pressure scrubber and dumps to the oil/water separator pit through a 2" schedule 80 carbon steel pipe.
- q) Cooling Tower Blowdown - The cooling tower blowdown originates at the discharge of the cooling water circulation pumps. The water is discharged into a 1" carbon steel pipe which is buried except for 15'. The line is connected to the 2" oil/water separator discharge line.
- r) Flare Water Knock-out - Condensed water from the flare gravitates into a horizontal steel vessel which is below ground level. The pit has earthen dikes around it to prevent rainfall from entering. The water is pumped automatically trough a 1" carbon steel pipe to the oil/water separator discharge line.

D. Spill/Leak Prevention and Housekeeping Procedures

1. Containment and Cleanup of Spills: Texaco's Buckeye Gas Processing Plant is manned 24 hours per day, 7 days per week. During non-business hours and on weekends the plant is manned by one of several Operators. The plant is visually inspected on an hourly basis by the Operator.

In the event of a spill that cannot be handled with personnel and equipment on site, the Plant Superintendent or his designated representative will call a trained and experienced local contractor who can provide the equipment necessary to contain and remove the spill. The contractor's equipment may include, but is not limited to, vacuum trucks, dump trucks, backhoes, hand tools, and absorbent material.

The Buckeye Gas Processing Plant has in effect a plan for prevention of significant spills that could lead to groundwater contamination. This plan calls for the installation of curbing, diking and/or other acceptable containment measures around all ground level storage vessels.

This plan also provides that any future ground level storage tanks will be installed on curbed pads constructed of concrete or other impervious material that will facilitate the detection of leaks.

Any spill contaminated materials will be disposed of in a manner that is consistent with all applicable local, state, and federal regulations.

In the event of a reportable spill, leak, or release, notification will be provided in accordance with New Mexico Oil Conservation Division Rule 116 and any other applicable rules or regulations.

2. Housekeeping Procedures: Empty chemical drums are stored in the empty drum storage site (concrete pad with curbing) on their sides with the bungs for return to the providing vendor. Where practical the plant utilizes bulk storage tanks in lieu of drums.

Oily rags are accumulated in closed lid containers placed at strategic locations throughout the plant. The oily rags are then returned to the vendor for cleaning and reuse.

Trash is stored in a dumpster as it is generated. Waste Management of Southeast New Mexico removes the trash for disposal at the City of Hobbs Landfill.

Oil filters and other filters used in the plant process are stored in metal containers until they are completely drained of fluid. They are then placed in

a special waste container provided by Waste Management of Southeast New Mexico and removed for disposal at the City of Hobbs Landfill.

WILL BE
TESTED & DISPOSED
OF AT OIL
WASTEWATER TREATMENT

Waste Sludge, leaking lube oil from plunger pumps, and oil soaked soil is mixed with caliche to soak up the oil. The oily soil is then removed to the east side of the plant where it is landfarmed and remediated. ?

Should a spill or leak occur, any contaminated soil is removed and disposed of in accordance with applicable local, state, and federal regulations.

3. Leak Detection: The plant operators conduct hourly walk-through inspections of the entire facility. If a leak is discovered the plant operator will initiate corrective action. In the event of a serious or catastrophic leak the plant operator may initiate emergency procedures as outlined in Item II.D.1.

Any problems encountered are noted in the operators log book.

30 PSI
ABOVE
OIL & GAS
PRESSURE

Additionally, the plant plans to leak test all buried wastewater lines within 1 year from this date. All pressurized lines will be hydrostatically tested at ~~1.5~~ times their operating pressure. Open-end lines will be tested by pneumatic or other acceptable non-destructive testing techniques. Records of the leak testing will be maintained in the plant files. *

4. Injection Wells: See Item III.A.2

III. Effluent Disposal

A. Existing Operations

1. On-site Facilities: Texaco's Buckeye Gas Processing Plant does not utilize on-site disposal facilities.
2. Off-Site Facilities
 - a) Sludges and Solids-The plant disposes of sludges and solids on an as needed basis. When disposal is required, the transporter and disposal site utilized will meet all local, state, and federal requirements.
 - b) Wastewater - All of the plant's wastewaters are disposed of in Texaco Exploration and Production Inc.'s (TEPI) Vacuum Glorietta West Unit Waterflood System. The wastewater is pumped from the plant's slop oil pit through a 2" carbon steel line to a 3" polypipe line that is owned by TEPI. TEPI receives the wastewater into a 3-

phase separator at Vacuum Glorietta West Unit Satellite #3. The wastewater is then injected into any of several Class II injection wells located in Sections 1, Township 18 South, Range 34 East and in Sections 35 and 36, Township 17 South, Range 34 East.

The injection wells and the waterflood project are operated by:

Texaco Exploration and Production, Inc.
West Star Route, Box 423
Lovington, NM 88260

B. Proposed Modifications: Not applicable.

IV. SITE CHARACTERISTICS

A. Hydrological Features

1. There are no known bodies of water, streams or other watercourses within one mile of the Buckeye Gas Processing Plant.

There are ten known freshwater wells within a one mile radius of the plant:

- Texaco Exploration and Production Inc. VGSA Unit D Well #3 Section 1, Township 18 South, Range 34 East.
- Texaco Exploration and Production Inc. VGSA Unit Well #2 Section 2, Township 18 South, Range 34 East
- Texaco Exploration and Production Inc. field office, Section 1, Township 18 South, Range 34 East
- Texaco Exploration and Production Inc. CVU Extraction Well #1, Section 1, Township 18 South, Range 34 East
- Texaco Exploration and Production Inc. CVU Extraction Well #2, Section 1, Township 18 South, Range 34 East
- Texaco Exploration and Production Inc. CVU Well #3 Section 6, Township 18 South, Range 35 East
- Texaco Exploration and Production Inc. CVU WSW #2, Section 6, Township 18 South, Range 35 East

- Texaco Exploration and Production Inc. Buckeye Gas Processing Plant, Section 36, Township 17 South, Range 34 East
- New Mexico Potash Corporation Well #8, Section 31, Township 17 South, Range 34 East.
- New Mexico Potash Corporation, Section 31, Township 17 South, Range 34 East.

Two of the wells, Texaco Exploration and Production Inc.'s CVU Extraction Wells #1 and #2, are used for a groundwater remediation project. The Texaco Exploration and Production Inc. field office well is used for office water (toilets and sinks). All other wells are used for industrial purposes.

2. The depth to the first usable aquifer, the Ogallala aquifer, averages 115-120 feet. On December 12, 1995 the plant's water well was sampled for water quality analyses. The analyses are included in Appendix 2.
3. During a 1989/1990 groundwater contamination study, conducted by the New Mexico Oil Conservation Division and Texaco Exploration and Production Inc., the groundwater flow direction was determined to be from the northwest to the southeast. A groundwater flow contour drawing has been included as Appendix 5.

B. Geological Description of Discharge Site

A geological description of the discharge site can best be described by including an excerpt from:

Groundwater Contamination Study
Texaco CVU WSW #3
Vacuum Field, Buckeye
Lea County, New Mexico

by Eddie W. Seay
New Mexico Oil Conservation Division
Hobbs, New Mexico
1989-1990

Site Geology

Geographically, the site is situated near the western boundary of the southern extension of the High Plains in Southeastern New Mexico. Topographically, the Southern High Plains, a plateau, rises approximately 100 to 300 feet above the surrounding region and slopes to the Southwest at 10 to 20n feet per mile.

The formation of interest in this area was the DacCum group, or "Redbed" and the Ogallala. The relatively impermeable shale faces of the upper portion of the Triassic Redbed represent the lower limit of the overlying Ogallala aquifer.

The Triassic Redbeds are composed of red to reddish brown mudstone with minor interbedded sandstone. This clay formation which underlies the fresh water aquifer is very irregular, varying in depth as much as fifty feet. Where the redbeds are exposed to the surface, it appears the changes and irregularities are due to stream erosion. these ridges and channels along with the southeastward dip of the redbed surface control the direction and movement of ground water in the lower portion of the "Ogallala" formation.

C. Flood Protection

After an exhaustive search of governmental agencies, specific flooding information could not be located. However, during the 30 year operating history of the plant there have been no known flooding events.

The annual rainfall totals from the nearest recording station in Lovington, New Mexico are:

Year	Rainfall in inches
1985	23.05
1986	16.45
1987	18.22
1988	17.80
1989	9.20
1990	11.55
1991	24.70
1992	19.95
1993	8.70
1994	8.95

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

International Dioxide, Inc., 136 Central Ave., Clark, NJ 07066
Manufacturer Phone: Day 908-499-9660 Night 401-738-6972
Chemtrec Emergency Phone: 800-424-9300
Effective Date: 12/27/91 MSDS #1004

WATER SOLUTION OF CHLORINE DIOXIDE

2. COMPOSITION/INFORMATION ON INGREDIENTS

(% CHEMICAL INGREDIENTS BY WT.)

Chlorine Dioxide CAS#10049-04-4 0.35%

(See Section 8 for exposure guidelines)

3. HAZARDS IDENTIFICATION

***** EMERGENCY OVERVIEW *****
*
* Liquid has a chlorine-like odor. Water based system with *
* boiling and freezing points near water. Free chlorine dioxide *
* gas can cause death with long exposures or explosions above *
* 10% concentration in air. A Wilson Type 2200 GF-3 gas mask or *
* a self contained breathing apparatus can be used in areas con- *
* taminated with ClO₂ gas. Solution is not a fire hazard. *
* Contain large spills and keep liquid out of water sources. *
* Solution which is saturated will contain about 0.29 wt.% ClO₂ *
* gas dissolved in water at room temperature. *
*

POTENTIAL HEALTH EFFECTS:

HUMAN THRESHOLD RESPONSE DATA:

ODOR THRESHOLD: The odor threshold for chlorine dioxide is approximately 1 ppm in air.

IRRITATION THRESHOLD: The irritation threshold is considered to be around 1 ppm in air.

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH: The IDLH level is 10 ppm in air.

INHALATION:

ACUTE: Inhalation of the liquid may produce a slight transient irritation with no permanent effect expected.

CHRONIC: Inhalation is not reported or expected to cause any effect based on the dilute nature of the product.

SKIN:

ACUTE: Exposure is not reported or known to cause any effects at this dilute concentration.

CHRONIC: Exposure is not reported or known to cause any effects at this dilute concentration.

EYE: Exposure may cause a slight transient irritation to the eye with no permanent effect.

INGESTION:

ACUTE: Ingestions of high concentrations may result in hematologic (blood) effects, most likely in red blood cells.

CHRONIC: Ingestion is not reported or known to cause effects in the general population. Concentrations greater than 100 ppm in water should be avoided by those individuals with anemia or G-6 PD deficiency. Levels of 5 ppm or less have been considered safe, although the EPA advises no greater than 1 ppm total.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Ingestion by individuals with anemia or G-6 PD deficiency should be avoided.

INTERACTIONS WITH OTHER CHEMICALS WHICH ENHANCE TOXICITY:

None known or reported.

ACUTE TOXICITY:

None available at this concentration. As a gas for the concentrated solution the following acute toxicology data is available.

Oral LD 50: 292 mg/kg (rat)

ACUTE TARGET ORGAN EFFECTS:

The acute effects of chlorine dioxide are related to its oxidizing and corrosive potential. These effects cannot be observed at this dilution concentration.

CHRONIC TARGET ORGAN EFFECTS:

Repeated ingestion of solutions of chlorine dioxide in laboratory animals at concentrations of chlorine dioxide greater than 100 ppm in water have caused minor effects on the hematologic (blood) system, primarily affecting red blood cells. At concentrations lower than 100 ppm these effects have not been observed in laboratory animals. In addition human clinical studies have not found significant health effects from repeated exposures to up to 5 ppm chlorine dioxide in water.

DEVELOPMENTAL AND REPRODUCTIVE TOXICITY:

Several studies evaluating the potential for chlorine dioxide to cause reproductive or developmental toxicity in laboratory animals have demonstrated that chlorine dioxide is not a developmental nor is it a reproductive toxin.

CARCINOGENICITY:

This product is not known or reported to be carcinogenic by any reference source including, IARC, OSHA, NTP or EPA.

MUTAGENICITY:

The weight of evidence of a battery of mutagenicity studies performed on sodium chlorite would indicate chlorine dioxide is not mutagenic.

4. FIRST AID MEASURES

EYES: Irrigate with water for at least 15 minutes; call a physician if irritation persists.

SKIN: Wash off in flowing water or shower.

INHALATION: Remove the worker to fresh air. If not breathing, give mouth to mouth resuscitation. If breathing is difficult, give oxygen. Call a physician.

INGESTION BY MOUTH: Give large amounts of water and contact a physician.

5. FIRE-FIGHTING MEASURES

HMIS RATINGS: HEALTH 1.0 FLAMMABILITY 0 REACTIVITY 0
NFPA RATINGS: None
FLASH POINT: Not applicable.

EXPLOSION LIMITS: Liquid is not explosive unless gas is evolved above 10% conc. of ClO_2 gas in air.

AUTO IGNITION TEMPERATURE: Not applicable.

LIBERATION OF ClO_2 GAS: Flush area with large amounts of air to keep the concentration below 10%, the explosive limit in air. Raising the solution above room temperature tends to lead to gas evolution.

EXTINGUISHING MEDIA: Water solution is not flammable. Water or water fog for surrounding materials.

EMERGENCY HANDLING: Isolate in an open, well ventilated area. Flood with large volumes of water. Can be stabilized by addition of hydrogen peroxide and sodium carbonate.

FIRE FIGHTING EQUIPMENT: If any free ClO_2 is present, wear full gear including self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

LARGE SPILLS: Evacuate area, contain liquid, transfer to closed polyethylene drums. Keep out of water supply. Flush area with water after liquid is removed.

SMALL SPILLS: Flush with water to dilute and sewer. Do not allow contact with rags, paper or other oxidizable materials.

REPORTABLE QUANTITY: Not applicable.

7. HANDLING & STORAGE

Usually used as made. Gas tends to leave the solution on standing. Store in a cool area in a closed container. Avoid temperatures

above 77°F and freezing conditions and exposure to sunlight. Store away from any metals or reducing agents.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

SKIN PROTECTION: Clean body covering protection plus rubber or neoprene work gloves. If the solution is spilled on clothing, then rinse the contaminated area fully to remove any solution. Contamination of cloth with ClO₂ requires washing to remove solution.

EYE PROTECTION: Use safety glasses. Where contact with appreciable quantities of this material is possible, use safety goggles.

EXPOSURE GUIDELINES:

	<u>OSHA</u>		<u>ACGIH</u>		
	<u>TWA</u>	<u>STEL</u>	<u>TLV</u>	<u>STEL</u>	<u>UNITS</u>
CHLORINE DIOXIDE	0.1	0.3	0.1	0.3	PPM

ENGINEERING CONTROLS: If any free ClO₂ is present in the system, control airborne concentrations below 0.1 ppm. Local exhaust ventilation may be required for some operations.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Yellow-green solution.

ODOR: Chlorine-like odor. **BOILING POINT:** About 212°F

VAPOR PRESSURE: Similar to water.

SOLUBILITY IN WATER: Completely soluble in all proportions.

SPECIFIC GRAVITY: 1.0

pH: 2.7

% VOLATILES: 100

10. STABILITY AND REACTIVITY

STABILITY: Weak oxidizing agent. Contamination with other materials such as acids, chlorine, organic chemicals, etc., may cause a chemical reaction, resulting in evolution of chlorine dioxide gases and heat. Explosion and/or fire could result. Chlorine dioxide is a poisonous explosive gas. Keep all chemical and foreign materials away from this solution. Avoid temperatures above ambient and ultraviolet light.

INCOMPATIBILITY: Chlorine dioxide is a strong oxidizing agent and should be kept away from organic materials and reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Chlorine dioxide - ClO₂

HAZARDOUS POLYMERIZATION: Will not occur.

EXPLOSION HAZARDS: A concentration of chlorine dioxide above 10% in air is explosive, especially at elevated temperatures. Under room temperature conditions, this dilute water solution is not hazardous.

11. DISPOSAL CONSIDERATIONS

ENVIRONMENTAL HAZARD: Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

WASTE DISPOSAL: If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D001, D002.

AQUATIC TOXICOLOGY:

LC 50 (96 hours) juvenile fathead minnows: 0.02 mg/l
LC 50 (96 hours) adult fathead minnows: 0.17 mg/l
LC 50 (96 hours) young of the year bluegills: 0.15 mg/l

12. TRANSPORT INFORMATION

ClO₂ in water solution is usually generated on-site and no transportation is involved. DOT forbids shipment of this material, except under special conditions.

13. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT: This substance is listed on the Toxic Substances Control Act inventory.

SUPPLIER NOTIFICATION REQUIREMENTS, PER 40 CFR 372.45: None established at these concentrations.

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200: Chlorine Dioxide is considered a hazardous ingredient.

CERCLA/SUPERFUND, 40 CFR 117,302: Chlorine dioxide is not listed under CERCLA.

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered under applicable definitions, to meet the following categories:

HEALTH: None
PHYSICAL: None

SARA 313 INFORMATION:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<u>CHEMICAL NAME</u>	<u>CASE NUMBER</u>	<u>CONCENTRATION</u>
Chlorine Dioxide	10049-04-4	0.02 - 0.35 wt %

CALIFORNIA PROPOSITION 65: This product does not contain a chemical known to the State of California to cause cancer or reproductive effects.

DISCLAIMER - This information herein is given in good faith but no warranty, expressed or implied, is made.

Product Name: UNI-KLOR A

Section: 01 PRODUCT IDENTIFICATION
-----UNICHEM INTERNATIONAL INC.
P.O. BOX 1499
707 N. LEECH
HOBBS, NM 88241-1499Emergency Telephone 505-393-7751
Previous Version Date 9/21/93
Date Prepared 10/07/93
Version: 0000003

Product Name: UNI-KLOR A

Chemical Description:
Hydrochloric acid (15%)-----
Section: 02 HAZARDOUS INGREDIENTS

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
hydrochloric acid (15% solution)	07647-01-0	100%

Section: 03 PHYSICAL DATA
-----Boiling Point, 760 mm Hg: appx 150 Deg.F
Specific Gravity(H2O=1) : 1.100 Solubility in water: Complete
Appearance and Odor: Clear, colorless-to-slightly yellow, fuming liquid; sharp,
pungent, irritating odor of hydrogen chloride gas.-----
Section: 04 FIRE AND EXPLOSION HAZARD DATA
-----Flash Point (Test Method): NoneExtinguishing Media

Hydrochloric acid solutions do not burn. Use extinguishing agents that will put out surrounding fire: dry chemical, carbon dioxide, halon, water spray or standard foam. Move containers from fire if possible. Cool containers exposed to flames with water until well after fire is out. Retain fire fighting liquids for proper disposal.

Special Fire Fighting Procedures

Wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand mode and full protective clothing. Product is extremely corrosive. Special neutralization procedures, if applicable, include the application of chemically basic substances such as soda ash or slaked lime.

Unusual Fire and Explosion Hazards

Use a water spray to cool fire-exposed containers to prevent ruptures. Extinguish all nearby sources of ignition since explosive hydrogen gas can be produced by the reaction of hydrochloric acid with most metals. Explosive concentrations of hydrogen may accumulate inside metal equipment. Releases

Product Name: UNI-KLOR A

Section: 04 FIRE AND EXPLOSION HAZARD DATA CONTINUED

hydrogen chloride gas when heated. Hydrochloric acid will react with most organic material with the evolution of heat and large quantities of dense, white fumes. Neutralize spilled hydrochloric acid with limestone, slaked lime or soda ash to minimize the possible generation of hydrogen gas.

Section: 05 HEALTH HAZARD DATA

Effects of Overexposure

Eye Contact: causes severe irritation, burns and tissue damage. The severity of injury from splashes depends on quantity, concentration/strength and duration of contact. Permanent visual damage can occur if not promptly treated.

Skin Contact: causes severe irritation, inflammation, ulceration, necrosis and chemical burns. Shock symptoms may develop including rapid pulse, sweating and collapse. Photosensitization reactions may occur in persons previously exposed. Repeated or prolonged exposures may cause dermatitis, photosensitization, skin tenderness and bleeding of the nose and gums.

Inhalation: causes severe irritation of the eyes, mucous membranes and upper respiratory tract. Inhalation of hydrogen chloride gas at levels of 5-35 ppm may cause irritation and burning of the throat, coughing and choking; 50-100 ppm may be barely tolerable for one hour. High levels may cause inflammation and occasionally ulceration of the nose, throat and larynx, bronchitis, pneumonia, palpitations and headache. Higher concentrations may cause necrosis of tracheal and bronchial epithelium, nasoseptal perforation, atelectasis, emphysema, damage to the pulmonary blood vessels and lesions of the liver and other organs. Death may be due to laryngeal spasm, bronchopneumonia or pulmonary edema. Reproductive effects have been reported in animals. Chronic exposure to vapors may cause discoloration or erosion of teeth, chronic bronchitis and gastritis.

Ingestion: causes corrosion of the mucous membranes, esophagus and stomach with consequent pain, uneasiness, nausea, salivation, vomiting, chills, shock, intense thirst and diarrhea. Nephritis, fever and perforation of the intestinal tract may occur. Circulatory collapse and death are possible.

Note to Physician: treatment for respiratory effects following inhalation of hydrogen chloride gas includes using a 5% sodium bicarbonate solution as an aerosol; maintaining a proper fluid balance (diuretics may be useful); and decreasing the inflammatory response of the lungs by administering steroids on a short-term basis

Product Name: UNI-KLOR A

Section: 05 HEALTH HAZARD DATACONTINUED

(2-4 dys). Severe inhalation exposure requires hospitalization and observation (72 hrs minimum) for the delayed onset of pulmonary edema. Serial chest X-rays and respiratory support including intubation, may be required as an early intervention.

Emergency and First Aid Procedures
-----SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

Section: 06 REACTIVITY DATA

Stable (Y=Yes/N=No): Y

Stability -- Conditions to Avoid

Stable, but reacts with many chemicals.

Incompatibility (Materials to Avoid)

Reacts exothermically with water or steam to produce toxic and corrosive fumes. Contact with common metals produces hydrogen gas which may form explosive mixtures with air. Incompatible with most metals, alkalis, metallic oxides, amines, strong oxidants including fluorine, vinyl acetate, propiolactone (beta), propylene oxide. Also reactive with water reactive materials such as concentrated sulfuric acid, oleum and acetic anhydride. Do not store near strong metals, mercuric sulfate, perchloric acid, carbides of calcium, cesium, rubidium, acetylides of cesium and rubidium, phosphides of calcium and uranium and lithium silicide. Reacts with strong reducing agents, cyanides, sulfides or combustible materials. Keep away from formaldehyde since there are reports that bis-chloromethyl ether, a potential

Product Name: UNI-KLOR A

Section: 06 REACTIVITY DATA

CONTINUED

carcinogen, may be formed.

Hazardous Decomposition Products

hydrogen gas, hydrogen chloride gas and chlorine gas.

Hazardous Polymerization May Occur(Y=Yes/N=No): N

Hazardous Polymerization -- Conditions to Avoid

None

Section: 07 SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled

Notify emergency response personnel, evacuate unnecessary personnel, eliminate all sources of ignition immediately (hydrogen gas may be generated), and provide adequate ventilation. Clean-up personnel need a full set of protective clothing, including a self-contained breathing apparatus (SCBA), acid-resistant slicker suit, and rubber boots. Small spills and residues can be covered with an excess of a mixture of soda ash and slaked lime. After neutralization, do not flush to a sewer or into lakes, ponds or streams. Contain large spills with soil, sand or other inert materials. Neutralize with slaked lime, sodium bicarbonate or crushed limestone. Knock down vapors with water spray. Stay upwind.

Waste Disposal Method

Treatment, storage, transportation and disposal must be in accordance with EPA or State regulations under authority of the Resource Conservation and Recovery Act (40 CFR 260-271).

Section: 08 SPECIAL PROTECTIVE INFORMATION

Respiratory Protection

If workplace exposure limit(s) of product or any component is exceeded, an NIOSH/MSHA approved supplied air respirator is advised in absence of proper environmental controls. OSHA regulations permit other NIOSH/MSHA approved respirators (negative pressure acid gas cartridge type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposures.

Ventilation

The use of mechanical dilution ventilation is recommended whenever this product is used in confined spaces, is heated above ambient temperatures or is agitated. When applicable, sufficient local ventilation should be provided to maintain employee exposures below safe working limits (TWA's).

Product Name: UNI-KLOR A

Section: 08 SPECIAL PROTECTIVE INFORMATION CONTINUED

Protective Gloves

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Wear impervious boots, apron or acid suit. Eyewash stations, safety/quick drench showers and washing facilities should be made available. Design all engineering systems to be corrosion resistant and explosion proof.

Section: 09 SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing

Store hydrochloric acid in closed containers in a cool, dry, well-ventilated area away from sources of ignition, strong oxidizers, strong bases, out of direct sunlight and away from incompatible chemicals. Protect containers from physical damage. Ground and bond all containers and pipelines, etc., used in shipping, transferring, reacting, production, and sampling operations to prevent static sparks (hydrogen gas may be generated). Toxic and explosive gases may build up and accumulate in storage and handling equipment. Avoid breathing vapors or mists. Wash thoroughly after handling. Do not get on eyes, on skin or on clothing.

Other Precautions

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Do not transfer to improperly marked container. Do not use pressure to empty container. Do not cut, heat, weld, or expose containers to flame or other sources of ignition. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Containers should be grounded and bonded to receiving container(s) when being emptied. Containers should not be washed out and used for other purposes.
FOR INDUSTRIAL USE ONLY

Section: 10 REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986(SARA) Title III

Section 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning

Product Name: UNI-KLOR A

Section: 10 REGULATORY INFORMATION

CONTINUED

Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the regulations should be consulted to verify current statutory requirements.

Components present in this product at a level which could require reporting under the statute are:

<u>Component Name</u>	<u>RQ</u>	<u>TPQ</u>	<u>% Range</u>
NONE			

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list, MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

☒ Acute Health Hazard	☐ Sudden Release of Pressure	☐ Fire
☒ Chronic Health Hazard	☐ Reactive	

Section 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

<u>Component Name</u>	<u>CAS #</u>	<u>% Range</u>
hydrochloric acid (15% solution)	07647-01-0	100%

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in pounds for the component and not the mixture, if applicable. (These values are subject to change and the regulations should be consulted to verify current statutory levels.)

<u>Component Name</u>	<u>CAS #</u>	<u>CERCLA RQ</u>
hydrochloric acid (15% solution)	07647-01-0	5000

OSHA Exposure Limits

<u>Component Name</u>
hydrochloric acid (15% solution)

Ceiling ppm: 5.0 Ceiling MG/M3 7.0

National Fire Protection Agency

<u>3</u> Health	<u>0</u> Fire
<u>0</u> Reactive	<u>ACID</u> Other

Product Name: UNI-KLOR A

Section: 10 REGULATORY INFORMATION

CONTINUED

Department of Transportation Shipping Information

Proper Shipping Name: Hydrochloric acid, solution

Hazard Class: 8

Identification: UN1789

Packaging Group: PG II

Hazardous Substance RQ: 5000# Emergency Response Guide Number: 60

Labels: Corrosive

Toxic Substances Control Act (TSCA), 40 CFR 261

This product (or components if product is a mixture) is in compliance with TSCA.

--

Section 10 information is to remain attached to the material safety data sheet for this product.

--

While UNICHEM INTERNATIONAL believes that the above data is correct, UNICHEM INTERNATIONAL expressly disclaims liability for any loss or injury arising out of the use of this information or the use of any materials designated.

--

END OF MSDS

Product Name: UNI-KLOR B

Section: 01 PRODUCT IDENTIFICATION

UNICHEM INTERNATIONAL INC.
P.O. BOX 1499
707 N. LEECH
HOBBS, NM 88241-1499

Emergency Telephone 505-393-7751
Previous Version Date 9/21/93
Date Prepared 2/04/94
Version: 0000003

Product Name: UNI-KLOR B

Chemical Description:
Proprietary Microbiocide Blend

Section: 02 HAZARDOUS INGREDIENTS

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
sodium hypochlorite, aqueous solution 12.5%	07681-52-9	< 13%
sodium chloride	07647-14-5	< 10%
sodium hydroxide	01310-73-2	< 2%

Section: 03 PHYSICAL DATA

Boiling Point, 760 mm Hg: Decomposes
Specific Gravity(H₂O=1) : 1.250 Solubility in water: Complete
Appearance and Odor: Yellow, clear liquid; chlorine odor.

Section: 04 FIRE AND EXPLOSION HAZARD DATA

Flash Point (Test Method): None

Extinguishing Media

Material decomposes at 329 degrees F. Use water, dry chemical or foam. Contain fire fighting liquid for proper disposal.

Special Fire Fighting Procedures

To minimize the progressive generation of noxious gases, flood burning material with large quantities of water. Must wear MSHA/NIOSH approved self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.

Unusual Fire and Explosion Hazards

Material is a strong oxidizer and corrosive. May ignite combustible materials and may produce noxious gases. Products of combustion are toxic.

Section: 05 HEALTH HAZARD DATA

Effects of Overexposure

Product Name: UNI-KLOR B

Section: 05 HEALTH HAZARD DATACONTINUED

Eye Contact: liquid or mist can produce severe irritation.

Skin Contact: liquid contact can produce blistering and eczema.

Inhalation: mist or fumes can cause bronchial irritation, coughing, difficult breathing, nausea, and pulmonary edema.

Ingestion: can cause corrosion of mucous membranes, perforation of esophagus and stomach. Can be fatal.

Emergency and First Aid Procedures
-----SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

Section: 06 REACTIVITY DATA
-----Stable (Y=Yes/N=No): YStability -- Conditions to Avoid

Stable, but reacts with many chemicals.

Incompatibility (Materials to Avoid)

Strong acids and alkalis, high storage temperatures, moisture and readily oxidizable materials.

Hazardous Decomposition Products

Chlorine gas rate of decomposition increases with the concentration and with the temperatures above 80 degrees. F.

Hazardous Polymerization May Occur(Y=Yes/N=No): NHazardous Polymerization -- Conditions to Avoid

None

Product Name: UNI-KLOR B

Section: 07 SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled

Persons not wearing appropriate personal protective clothing and equipment should be excluded from the area of the spill until clean-up has been completed. Shut off source of spill if possible to do so without hazard.

Danger! Oxidizing material. Do not get in eyes or on skin. Avoid breathing dust. For spills wear appropriate protective gear and respiratory protection. Where dust may be generated wear full face respiratory protection. For large spills, or when spilled material comes in contact with water, self-contained breathing apparatus is preferred. Carefully sweep up material. Avoid generating dust or contaminating with combustible material. Place in a compatible container for disposal. Material is toxic to fish. Do not discharge into lakes, streams, ponds or public water unless in accordance with NPDES permit.

Waste Disposal Method

Dispose of in compliance with all federal, state and local laws and regulations. Incineration is the preferred method.

Section: 08 SPECIAL PROTECTIVE INFORMATION

Respiratory Protection

If workplace exposure limit(s) of product or any component is exceeded, an NIOSH/MSHA approved supplied air respirator is advised in absence of proper environmental controls. OSHA regulations permit other NIOSH/MSHA approved respirators (negative pressure chlorine cartridge type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposures.

Ventilation

General (mechanical) room ventilation is expected to be satisfactory if this material is kept in covered equipment or if the solution is highly diluted. However, if vapors are strong enough to be irritating to the nose (or eyes), the TLV is probably being exceeded and special ventilation may be required.

Protective Gloves

Polyvinylchloride (PVC)

Eye Protection

Other Protective Equipment

Eye wash and safety shower

Section: 09 SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing

Product Name: UNI-KLOR B

Section: 09 SPECIAL PRECAUTIONSCONTINUED

Danger! Corrosive. Causes irreversible eye damage. Causes skin irritation. Harmful if inhaled. Harmful if swallowed. Harmful if absorbed through skin. May cause skin sensitization. Do not get in eyes, on skin or on clothing. Avoid breathing vapors. Do not swallow. Wear goggles, protective clothing and rubber gloves. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Extremely flammable. Keep away from heat, sparks and open flames. Never use a cutting torch on or near container (even empty) or explosion may result. Vapors form from this product and may travel or be moved by air currents and ignited by pilot lights, other flames, sparks, heaters, electrical equipment, static charges or other ignition sources distant from product handling point. Use proper bonding and grounding during liquid transfer. Vapors may settle in low or confined areas, or travel a long distance to an ignition source and flash back explosively.

Other Precautions

Toxic to fish; avoid discharges to natural waters. Very low concentrations can be degraded in a biological treatment system. Thus SMALL spills can be flushed with LARGE quantities of water. Large quantities or 'slugs' can be harmful to a treatment system. Thus large spills should be collected for disposal. It may also be possible to decontaminate spilled materials by careful application of aqueous sodium hydroxide or dibasic ammonium phosphate solution. Wear protective clothing; the decontamination reaction generates heat and causes evolution of vapors. In the event of spillage or misuses which cause a release of product vapor to the atmosphere, thoroughly ventilate the area, especially near floor level where vapors will collect. Warning! Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Containers of this product may be hazardous when emptied. Since emptied containers retain product residues (liquid, vapors, solids), all hazard precautions given in the data sheet must be observed. Do not transfer to an improperly marked container. Do not use pressure to empty container. Keep container closed. Use with adequate ventilation. FOR INDUSTRIAL USE ONLY.

Section: 10 REGULATORY INFORMATION
-----Superfund Amendments and Reauthorization Act Of 1986(SARA) Title III

Product Name: UNI-KLOR B

Section: 10 REGULATORY INFORMATIONCONTINUED
-----Section 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the regulations should be consulted to verify current statutory requirements.

Components present in this product at a level which could require reporting under the statute are:

<u>Component Name</u>	<u>RQ</u>	<u>TPQ</u>	<u>% Range</u>
NONE			

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list, MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

☒ Acute Health Hazard	☐ Sudden Release of Pressure	☐ Fire
☐ Chronic Health Hazard	☐ Reactive	

Section 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

<u>Component Name</u>	<u>CAS #</u>	<u>% Range</u>
sodium hydroxide	01310-73-2	< 2%

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in pounds for the component and not the mixture, if applicable. (These values are subject to change and the regulations should be consulted to verify current statutory levels.)

<u>Component Name</u>	<u>CAS #</u>	<u>CERCLA RQ</u>
sodium hypochlorite, aqueous solution 12.5%	07681-52-9	100
sodium hydroxide	01310-73-2	1000

OSHA Exposure Limits

<u>Component Name</u>
sodium hydroxide

Ceiling MG/M3 2.0

Product Name: UNI-KLOR B

Section: 10 REGULATORY INFORMATIONCONTINUED
-----National Fire Protection Agency2 Health0 Fire1 ReactiveALK OtherDepartment of Transportation Shipping Information

Proper Shipping Name: Hypochlorite solution

Hazard Class: 8

Identification: UN1791

Packaging Group: PG III

Comments: more than 5%, less than 16% available chlorine

Hazardous Substance RQ: 769# Emergency Response Guide Number: 60

Labels: Corrosive

Toxic Substances Control Act (TSCA), 40 CFR 261This product (or components if product is a mixture) is in compliance with TSCA.
--Section 10 information is to remain attached to the material safety data sheet for this product.
--While UNICHEM INTERNATIONAL believes that the above data is correct, UNICHEM INTERNATIONAL expressly disclaims liability for any loss or injury arising out of the use of this information or the use of any materials designated.
--

END OF MSDS

Product Name: UNI-KLOR C

Section: 01 PRODUCT IDENTIFICATION
-----UNICHEM INTERNATIONAL INC.
P.O. BOX 1499
707 N. LEECH
HOBBS, NM 88241-1499Emergency Telephone 505-393-7751
Previous Version Date 2/19/93
Date Prepared 9/21/93
Version: 0000003

Product Name: UNI-KLOR C

Chemical Description:
Proprietary microbiocide blend-----
Section: 02 HAZARDOUS INGREDIENTS

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
sodium chlorite	07758-19-2	25%

Section: 03 PHYSICAL DATA
-----Freezing Point: 16 Deg.F.
Boiling Point, 760 mm Hg: 223 Deg.F
Specific Gravity(H2O=1) : 1.240 Solubility in water: Miscible
Appearance and Odor: Pale yellow, clear liquid; faint bleach-like odor.-----
Section: 04 FIRE AND EXPLOSION HAZARD DATA
-----Flash Point (Test Method): NoneExtinguishing Media

Use only water for fires involving sodium chlorite.

Special Fire Fighting Procedures

Fire fighters should wear self-contained breathing apparatus with a full facepiece operated in the pressure-demand or positive-pressure mode.

Unusual Fire and Explosion Hazards

Does not burn, but combustibles wetted with this solution and subsequently dried are easily ignited and burn vigorously.

Section: 05 HEALTH HAZARD DATA
-----Effects of Overexposure

Eye Contact: causes severe irritation. May cause permanent damage because of corrosive properties.

Skin Contact: irritating to skin if not washed off promptly. Dermatitis is likely to occur from repeated or prolonged contact.

Product Name: UNI-KLOR C

Section: 05 HEALTH HAZARD DATACONTINUED

Inhalation: spray or mist is irritating to nose and throat.

Ingestion: will irritate and may cause corrosion of the gastrointestinal tract. May cause vomiting, nausea, diarrhea, cramps and pain. May damage blood cells, liver or kidney.

Emergency and First Aid Procedures
-----SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Otherwise, rinse mouth with water and give 8 to 10 ounces (250 to 300 ml) of milk, egg whites or gelatin solution. Get medical attention immediately.

Section: 06 REACTIVITY DATA
-----Stable (Y=Yes/N=No): YStability -- Conditions to Avoid

Reacts on mixing with acids to give toxic chlorine dioxide and chlorine gases. Mixtures with combustibles, if allowed to dry out, are easily ignited by heat or friction and burn vigorously or may explode.

Incompatibility (Materials to Avoid)

Incompatible with all combustibles and reducing agents, especially phosphorus, sulfur-containing materials, powdered metals and ammonium compounds. Incompatible with acids.

Hazardous Decomposition Products

Residues of sodium chlorite, from dried-out solution, will give off oxygen on being heated strongly.

Hazardous Polymerization May Occur(Y=Yes/N=No): NHazardous Polymerization -- Conditions to Avoid

None

Product Name: UNI-KLOR C

Section: 06 REACTIVITY DATA

CONTINUED

Section: 07 SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled

Contain spills. Collect into clean metal or high density polyethylene containers. Wash away residues with large amounts of water. Collect all clean up materials for proper disposal.

DO NOT USE RAGS, SAWDUST OR OTHER COMBUSTIBLE ABSORBENTS.

Waste Disposal Method

Treatment, storage, transportation and disposal must be in accordance with EPA or state regulations under authority of the Resource Conservation and Recovery Act (RCRA), 40CFR Parts 260-271. Do not allow contaminated combustible material to dry out. For guidance, contact your State Water Board or Regional Office of the EPA.

Section: 08 SPECIAL PROTECTIVE INFORMATION

Respiratory Protection

Use a dust/mist mask if spray or mist is present.

Ventilation

Use a separate, corrosion-resistant ventilation system to capture mist or fume. Do not use wood or other combustibles to construct this system. Prevent entry into bearings or gear boxes, which could cause an explosion.

Protective Gloves

Butyl rubber, neoprene

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Use waterproof or washable outer clothing. Remove contaminated clothing and wash it before it dries. Have an eye wash/shower available.

Section: 09 SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mists. Use with adequate ventilation. Use corrosion resistant tools and equipment. Store in a cool,

Product Name: UNI-KLOR C

Section: 09 SPECIAL PRECAUTIONSCONTINUED

dry, fireproof building. KEEP AWAY FROM COMBUSTIBLES AND ACIDS.

Other Precautions

Since emptied containers may retain product residues, all hazard precautions given in this safety data sheet must be observed. Do not transfer to improperly marked container. Do not use pressure to empty container. Keep container closed. Empty containers should not be used for other purposes. FOR INDUSTRIAL USE ONLY.

Section: 10 REGULATORY INFORMATION
-----Superfund Amendments and Reauthorization Act Of 1986(SARA) Title IIISection 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the regulations should be consulted to verify current statutory requirements.

Components present in this product at a level which could require reporting under the statute are:

Component NameRQTPQ% Range

NONE

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list, MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

☒ Acute Health Hazard☐ Sudden Release of Pressure☒ Fire☐ Chronic Health Hazard☐ ReactiveSection 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

Component NameCAS #% Range

NONE

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and

Product Name: UNI-KLOR C

Section: 10 REGULATORY INFORMATION

CONTINUED

Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in pounds for the component and not the mixture, if applicable. (These values are subject to change and the regulations should be consulted to verify current statutory levels.)

Component NameCAS #CERCLA RQ

NONE

OSHA Exposure LimitsComponent Name

NONE

National Fire Protection Agency2 Health1 Fire1 ReactiveALK OtherDepartment of Transportation Shipping Information

Proper Shipping Name: Sodium chlorite solution

Hazard Class: 8

Identification: UN1908

Packaging Group: PG II

Comments: more than 5% available chlorine

Hazardous Substance RQ: *NONE* Emergency Response Guide Number: 60

Labels: Corrosive

Toxic Substances Control Act (TSCA), 40 CFR 261

This product (or components if product is a mixture) is in compliance with TSCA.

--

Section 10 information is to remain attached to the material safety data sheet for this product.

--

While UNICHEM INTERNATIONAL believes that the above data is correct, UNICHEM INTERNATIONAL expressly disclaims liability for any loss or injury arising out of the use of this information or the use of any materials designated.

--

END OF MSDS



Product Name: UNICHEM 2310

Section: 01 PRODUCT IDENTIFICATION
-----UNICHEM INTERNATIONAL INC.
P.O. BOX 1499
707 N. LEECH
HOBBS, NM 88241-1499Emergency Telephone 505-393-7751
Previous Version Date 9/21/93
Date Prepared 10/07/93
Version: 0000003

Product Name: UNICHEM 2310

Chemical Description:
Proprietary Corrosion Inhibitor Blend-----
Section: 02 HAZARDOUS INGREDIENTS

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
sodium nitrite	07632-00-0	< 25%

Section: 03 PHYSICAL DATA
-----Freezing Point: 22 Deg.F.
Boiling Point, 760 mm Hg: 212 Deg.F
Specific Gravity(H2O=1) : 1.160 Solubility in water: Complete
Appearance and Odor: Light yellow to water-white, clear liquid; very slight odor.-----
Section: 04 FIRE AND EXPLOSION HAZARD DATA
-----Flash Point (Test Method): NONE TCCExtinguishing Media

This material is non-combustible. If this material is involved in a fire, use an extinguishing agent appropriate to surrounding materials. Water spray may be used to cool containers of this material exposed to a fire. Fire extinguishing materials should be collected for determination of proper disposal.

Special Fire Fighting Procedures

Fire fighters should wear self-contained breathing apparatus with a full facepiece operated in the pressure-demand or positive-pressure mode.

Unusual Fire and Explosion Hazards

None

Section: 05 HEALTH HAZARD DATA
-----Effects of Overexposure

Eye Contact: may cause irritation with symptoms of redness, itching and pain.

Product Name: UNICHEM 2310

Section: 05 HEALTH HAZARD DATACONTINUED

Skin Contact: may cause irritation with symptoms of redness, itching and pain. Prolonged contact may cause irritation and chronic dermatitis. Material absorbed through broken skin produces symptoms similar those for ingestion.

Inhalation: heated or agitated product may cause irritation of the respiratory tract. Symptoms may include coughing, shortness of breath.

Ingestion: may cause gastroenteritis and abdominal pains. Purging and diuresis can be expected. Can cause nausea, vomiting, diarrhea, weakness, depression, headaches, skin rashes, dry skin, loss of hair, cracked lips, shock.

Emergency and First Aid Procedures
-----SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

Section: 06 REACTIVITY DATA

Stable (Y=Yes/N=No): Y

Stability -- Conditions to Avoid

None known.

Incompatibility (Materials to Avoid)

Acids and strong reducing agents.

Hazardous Decomposition Products

Smoke, carbon dioxide, carbon monoxide, oxides of nitrogen.

Hazardous Polymerization May Occur(Y=Yes/N=No): N

Product Name: UNICHEM 2310

Section: 06 REACTIVITY DATACONTINUED
-----Hazardous Polymerization -- Conditions to Avoid

None

Section: 07 SPILL OR LEAK PROCEDURES
-----Steps to be Taken if Material is Released or Spilled

Persons not wearing suitable personal protective equipment should be excluded from area of spill until clean-up has been completed. Shut off source of spill if possible to do so without hazard. Prevent material from entering sewers or watercourses. Provide adequate ventilation. Contain spilled material with sand or earth. Recovered undamaged or minimally contaminated material for reuse or reclamation. Place all collected material and spill absorbents into DOT approved containers.

Advise authorities. If this product is an EPA hazardous substance (see Section 10), notify the U.S.EPA or the National Response Center. Additional notification pursuant to SARA Section 302/304 (40 CFR 355) may also be required.

Waste Disposal Method

Treatment, storage, transportation and disposal must be in accordance with EPA or State regulations under authority of the Resource Conservation and Recovery Act (40 CFR 260-271).

Section: 08 SPECIAL PROTECTIVE INFORMATION
-----Respiratory Protection

If a respirator is determined to be necessary, respirators approved by NIOSH and MSHA and selected for the hazard by qualified persons shall be used. Conditions unique to the workplace may allow air purifying devices selected for the contaminate(s) of concern, or require supplied air or self-contained breathing apparatus. Engineering or administrative controls should be implemented to reduce exposures.

Ventilation

The use of mechanical dilution ventilation is recommended whenever this product is used in confined spaces, is heated above ambient temperatures or is agitated. When applicable, sufficient local ventilation should be provided to maintain employee exposures below safe working limits (TWA's).

Protective Gloves

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also

Product Name: UNICHEM 2310

Section: 08 SPECIAL PROTECTIVE INFORMATION CONTINUED

permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Eye wash and safety shower

Section: 09 SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mist.

Other Precautions

Containers of this material may be hazardous when emptied. Since emptied containers retain residues (vapor, liquid, or solid), all hazard precautions given in this data sheet must be observed. Do not transfer to improperly marked container. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Containers should not be washed out or used for other purposes.

FOR INDUSTRIAL USE ONLY

Section: 10 REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act Of 1986(SARA) Title IIISection 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the regulations should be consulted to verify current statutory requirements.

Components present in this product at a level which could require reporting under the statute are:

Component NameRQ TPQ % Range

NONE

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list, MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

☒ Acute Health Hazard
☐ Chronic Health Hazard

☐ Sudden Release of Pressure
☐ Reactive

☐ Fire

Product Name: UNICHEM 2310

Section: 10 REGULATORY INFORMATION

CONTINUEDSection 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

Component NameCAS #% Range

NONE

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in pounds for the component and not the mixture, if applicable. (These values are subject to change and the regulations should be consulted to verify current statutory levels.)

Component NameCAS #CERCLA RQ

sodium nitrite

07632-00-0

100

OSHA Exposure LimitsComponent Name

NONE

National Fire Protection Agency2 Health0 Fire0 Reactive OtherDepartment of Transportation Shipping Information

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.

Hazard Class: 9

Identification: UN3082

Packaging Group: PG III

Contains: sodium nitrite

Comments: Marine Pollutant

Hazardous Substance RQ: 400# Emergency Response Guide Number: 31

Labels: Class 9

Toxic Substances Control Act (TSCA), 40 CFR 261

This product (or components if product is a mixture) is in compliance with TSCA.

--

Section 10 information is to remain attached to the material safety data sheet for this product.

--

While UNICHEM INTERNATIONAL believes that the above data is correct, UNICHEM INTERNATIONAL expressly disclaims liability for any loss or injury arising out of the use of this information or the use of any materials designated.

Product Name: UNICHEM 2310

Section: 10 REGULATORY INFORMATION

CONTINUED

--
END OF MSDS

Product Name: UNICHEM 1304

Section: 01 PRODUCT IDENTIFICATION
-----UNICHEM INTERNATIONAL INC.
P.O. BOX 1499
707 N. LEECH
HOBBS, NM 88241-1499Emergency Telephone 505-393-7751
Previous Version Date 4/12/93
Date Prepared 9/21/93
Version: 0000002

Product Name: UNICHEM 1304

Chemical Description:
Proprietary cooling water treatment blend-----
Section: 02 HAZARDOUS INGREDIENTS

<u>Component Name</u>	<u>CAS#</u>	<u>% Range</u>
potassium hydroxide	01310-58-3	< 15%

Section: 03 PHYSICAL DATA
-----Freezing Point: 5 Deg.F.
Boiling Point, 760 mm Hg: 212 Deg.F
Specific Gravity(H2O=1) : 1.340 Solubility in water: Soluble
Appearance and Odor: Clear, amber liquid; sweet odor.-----
Section: 04 FIRE AND EXPLOSION HAZARD DATA
-----Flash Point (Test Method): NoneExtinguishing Media

This material is non-combustible. If this material is involved in a fire, use an extinguishing agent appropriate to surrounding materials. Water spray may be used to cool containers of this material exposed to a fire. Fire extinguishing materials should be collected for determination of proper disposal.

Special Fire Fighting Procedures

Fire fighters should wear self-contained breathing apparatus with a full facepiece operated in the pressure-demand or positive-pressure mode.

Unusual Fire and Explosion Hazards

May release toxic or corrosive material if container is destroyed in a fire.

Section: 05 HEALTH HAZARD DATA
-----Effects of Overexposure

Eye Contact: vapors, liquid and mists are corrosive to the

Product Name: UNICHEM 1304

Section: 05 HEALTH HAZARD DATA

CONTINUED

eyes. Brief contact of the vapors will be cause irritation while brief contact of the liquid or mists will cause damage the eyes. Prolonged contact may cause permanent eye injury which may be followed by blindness.

Skin Contact: vapors, mists and liquid are corrosive to the skin. Vapors will irritate the skin and liquid will burn the skin. Prolonged liquid contact will burn or destroy surrounding tissue and death may accompany burns which extend over large portions of the body. Some skin absorption may occur.

Inhalation: vapors and mists are corrosive to the nose, throat, and mucous membranes. Bronchitis, pulmonary edema and chemical pneumonitis may occur. Irritation, coughing, chest pain, difficulty in breathing, headache and nausea may occur with brief exposure while prolonged exposure may result in more severe irritation and tissue damage. Breathing high concentrations may result in death.

Ingestion: vapors, mists and liquid are corrosive to the mouth and throat. Swallowing the liquid burns the tissues, causes severe abdominal pain, nausea, vomiting and collapse. Swallowing large quantities can cause death.

Chronic Effects of Exposure: may result in area of destruction of skin tissue or primary irritant dermatitis. Similarly, inhalation of vapors or mists may cause varying degrees of damage to the affected tissues and also increasing susceptibility to respiratory illness.

Emergency and First Aid Procedures

SKIN

Wash with soap and water. Remove contaminated clothing and launder contaminated clothing before reuse. Get medical attention if redness or irritation develops.

EYES

Flush eyes immediately with large amounts of water for at least 15 minutes. Lift lower and upper lids occasionally. Get medical attention.

INHALATION

Remove victim to fresh air. Give artificial respiration if not breathing. If breathing is difficult, administer oxygen. Keep person warm, quiet and get medical attention.

INGESTION

Call a physician immediately. Give victim a glass of water. Do NOT induce vomiting unless instructed by a physician or poison control center. Never give anything by mouth to an unconscious person.

Product Name: UNICHEM 1304

Section: 05 HEALTH HAZARD DATACONTINUED

Section: 06 REACTIVITY DATA
-----Stable (Y=Yes/N=No): YStability -- Conditions to Avoid

None known.

Incompatibility (Materials to Avoid)

Strong oxidizing agents and strong acids.

Hazardous Decomposition Products

Smoke, carbon dioxide, carbon monoxide, oxides of nitrogen.

Hazardous Polymerization May Occur(Y=Yes/N=No): NHazardous Polymerization -- Conditions to AvoidNone
-----Section: 07 SPILL OR LEAK PROCEDURES
-----Steps to be Taken if Material is Released or Spilled

Persons not wearing suitable personal protective equipment should be excluded from area of spill until clean-up has been completed. Shut off source of spill if possible to do so without hazard. Prevent material from entering sewers or watercourses. Provide adequate ventilation. Contain spilled material with sand or earth. Recovered undamaged or minimally contaminated material for reuse or reclamation. Place all collected material and spill absorbents into DOT approved containers.

Advise authorities. If this product is an EPA hazardous substance (see Section 10), notify the U.S.EPA or the National Response Center. Additional notification pursuant to SARA Section 302/304 (40 CFR 355) may also be required.

Waste Disposal Method

Treatment, storage, transportation and disposal must be in accordance with EPA or State regulations under authority of the Resource Conservation and Recovery Act (40 CFR 260-271).

-----Section: 08 SPECIAL PROTECTIVE INFORMATION
-----Respiratory Protection

If a respirator is determined to be necessary, respirators approved by NIOSH and MSHA and selected for the hazard by qualified persons shall be used. Conditions unique to the workplace may allow air purifying devices selected for the contaminate(s) of concern, or require supplied air or self-

Product Name: UNICHEM 1304

Section: 08 SPECIAL PROTECTIVE INFORMATION CONTINUED

contained breathing apparatus. Engineering or administrative controls should be implemented to reduce exposures.

Ventilation

The use of mechanical dilution ventilation is recommended whenever this product is used in confined spaces, is heated above ambient temperatures or is agitated. When applicable, sufficient local ventilation should be provided to maintain employee exposures below safe working limits (TWA's).

Protective Gloves

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride (PVC)

Eye Protection

Chemical splash goggles or face shield in compliance with OSHA regulations is advised; however OSHA regulations also permits safety glasses under certain conditions. The use of contact lenses is not recommended.

Other Protective Equipment

Eye wash and safety shower

Section: 09 SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing

Avoid contact with eyes, skin or clothing. Avoid breathing vapors or mist.

Other Precautions

Containers of this material may be hazardous when emptied. Since emptied containers retain residues (vapor, liquid, or solid), all hazard precautions given in this data sheet must be observed. Do not transfer to improperly marked container. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Containers should not be washed out or used for other purposes.
FOR INDUSTRIAL USE ONLY

Section: 10 REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act Of 1986(SARA) Title III

Section 302/304-Extremely Hazardous Substances (40 CFR 355)

SARA requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). These values are subject to change and the regulations should be consulted to verify current statutory requirements.

Product Name: UNICHEM 1304

Section: 10 REGULATORY INFORMATION

CONTINUED

Components present in this product at a level which could require reporting under the statute are:

<u>Component Name</u>	<u>RQ</u>	<u>TPO</u>	<u>% Range</u>
NONE			

Section 311/312 Chemical Inventory Reporting Requirements (40 CFR 370)

The Superfund Amendments and Reauthorization Act (SARA) may require submission of reports (chemical list, MSDS, Tier I & Tier II) to the State Emergency Response Commission, Local Emergency Response Committee and the local fire department. The SARA physical and health hazards related to this product are:

<u>X</u> Acute Health Hazard	<u> </u> Sudden Release of Pressure	<u> </u> Fire
<u>X</u> Chronic Health Hazard	<u> </u> Reactive	

Section 313-List of Toxic Chemicals (40 CFR 372)

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372). This information should be included in all MSDSs that are copied and distributed for this material.

<u>Component Name</u>	<u>CAS #</u>	<u>% Range</u>
NONE		

CERCLA, 40 CFR 261 AND 302

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center 1-800-424-8802 of any release of a Hazardous Substances equal to or greater than the reportable quantities (RQs) listed in 40CFR 302.4. Values are given in pounds for the component and not the mixture, if applicable. (These values are subject to change and the regulations should be consulted to verify current statutory levels.)

<u>Component Name</u>	<u>CAS #</u>	<u>CERCLA RQ</u>
potassium hydroxide	01310-58-3	1000

OSHA Exposure Limits

<u>Component Name</u>
potassium hydroxide

Ceiling MG/M3	2.0
---------------	-----

National Fire Protection Agency

<u>2</u> Health	<u>0</u> Fire
<u>0</u> Reactive	<u>ALK</u> Other

Department of Transportation Shipping Information

Proper Shipping Name: Corrosive liquids, n.o.s.

Product Name: UNICHEM 1304

Section: 10 REGULATORY INFORMATION

CONTINUED

Hazard Class: 8

Identification: UN1760

Packaging Group: PG II

Contains: potassium hydroxide

Hazardous Substance RQ: 6700#

Emergency Response Guide Number: 60

Labels: Corrosive

Toxic Substances Control Act (TSCA), 40 CFR 261

This product (or components if product is a mixture) is in compliance with TSCA.

--
Section 10 information is to remain attached to the material safety data sheet for this product.

--
While UNICHEM INTERNATIONAL believes that the above data is correct, UNICHEM INTERNATIONAL expressly disclaims liability for any loss or injury arising out of the use of this information or the use of any materials designated.

--
END OF MSDS



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

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

PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Texaco Exploration & Production, Inc. Date: 12/27/95
Address: West Star Route Box 425 Lab #: H2336-3
City, State: Lovington, New Mexico 88260

Project Name: Texaco E & P Inc
Location: Buckeye Plant
Sampled by: MI/MG
Sample Type: water
Sample ID: Oil/water separator

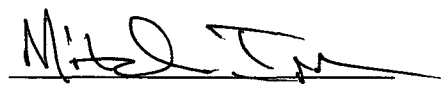
Sample Date: 12/12/95
Sample Condition: intact

VOLATILE ORGANIC COMPOUNDS

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Chloromethane	<0.200	mg/L
Vinyl chloride	<0.200	mg/L
Bromomethane	<0.200	mg/L
Chloroethane	<0.200	mg/L
Trichlorofluoromethane	<0.200	mg/L
1,1-Dichloroethene	<0.200	mg/L
Methylene chloride	<0.200	mg/L
trans-1,2 Dichloroethene	<0.200	mg/L
1,1-Dichloroethane	<0.200	mg/L
Chloroform	<0.200	mg/L
1,1,1-Trichloroethane	<0.200	mg/L
1,2 Dichloroethane	<0.200	mg/L
Benzene	43.700	mg/L
Carbon Tetrachloride	<0.200	mg/L
Trichloroethene	<0.200	mg/L
Bromodichloromethane	<0.200	mg/L
2(chloroethoxy) ethene	<0.200	mg/L
trans-1,3Dichloropropene	<0.200	mg/L
1,2-Dichloropropane	<0.200	mg/L
cis 1,3-Dichloropropene	<0.200	mg/L
Toluene	23.000	mg/L
1,1,2-Trichloroethane	<0.200	mg/L
Dibromochloromethane	<0.200	mg/L
Tetrachloroethene	<0.200	mg/L
Chlorobenzene	<0.200	mg/L
Ethylbenzene	<0.200	mg/L
Bromoform	<0.200	mg/L
1,1,2,2-Tetrachloroethane	<0.200	mg/L
1,3-Dichlorobenzene	<0.200	mg/L
1,2-Dichlorobenzene	<0.200	mg/L
1,4-Dichlorobenzene	<0.200	mg/L

*Detection Limit 0.2

METHOD: VOLATILE ORGANIC COMPOUNDS EPA 601 & 602(624)


Mitch Irvin

12/29/95
Date

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FINAL ANALYSIS REPORT

Company: Texaco Exploration & Production, Inc. Date: 12/27/95
Address: West Star Route Box 425 Lab #: H2336-2
City, State: Lovington, New Mexico 88260

Project Name: Texaco E & P Inc
Location: Buckeye Plant
Sampled by: MI/MG
Sample Type: water
Sample ID: H2336-2 water well

Sample Date: 12/12/95
Sample Condition: intact

VOLATILE ORGANIC COMPOUNDS

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Chloromethane	<0.002	mg/L
Vinyl chloride	<0.002	mg/L
Bromomethane	<0.002	mg/L
Chloroethane	<0.002	mg/L
Trichlorofluoromethane	<0.002	mg/L
1,1-Dichloroethene	<0.002	mg/L
Methylene chloride	<0.002	mg/L
trans-1,2 Dichloroethene	<0.002	mg/L
1,1-Dichloroethane	<0.002	mg/L
Chloroform	<0.002	mg/L
1,1,1-Trichloroethane	<0.002	mg/L
1,2 Dichloroethane	<0.002	mg/L
Benzene	<0.009	mg/L
Carbon Tetrachloride	<0.002	mg/L
Trichloroethene	<0.002	mg/L
Bromodichloromethane	<0.002	mg/L
2(chloroethoxy) ethene	<0.002	mg/L
trans-1,3Dichloropropene	<0.002	mg/L
1,2-Dichloropropane	<0.002	mg/L
cis 1,3-Dichloropropene	<0.002	mg/L
Toluene	<0.002	mg/L
1,1,2-Trichloroethane	<0.002	mg/L
Dibromochloromethane	<0.002	mg/L
Tetrachloroethene	<0.002	mg/L
Chlorobenzene	<0.002	mg/L
Ethylbenzene	0.009	mg/L
Bromoform	<0.002	mg/L
1,1,2,2-Tetrachloroethane	<0.002	mg/L
1,3-Dichlorobenzene	<0.002	mg/L
1,2-Dichlorobenzene	<0.002	mg/L
1,4-Dichlorobenzene	<0.002	mg/L

METHOD: VOLATILE ORGANIC COMPOUNDS EPA 601 & 602(624)


Mitch Irvin

12/29/95
Date

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FINAL ANALYSIS REPORT

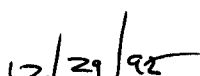
Company: Texaco Exploration & Production, Inc. Date: 12/27/95
Address: West Star Route Box 425 Lab #: H2336-1
City, State: Lovington, New Mexico 88260
Project Name: Texaco E & P Inc
Location: Buckeye Plant
Sampled by: MI/MG Sample Date: 12/12/95
Sample Type: water Sample Condition: intact
Sample ID: cooling tower

VOLATILE ORGANIC COMPOUNDS

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Chloromethane	<0.002	mg/L
Vinyl chloride	<0.002	mg/L
Bromomethane	<0.002	mg/L
Chloroethane	<0.002	mg/L
Trichlorofluoromethane	<0.002	mg/L
1,1-Dichloroethene	<0.002	mg/L
Methylene chloride	<0.002	mg/L
trans-1,2 Dichloroethene	<0.002	mg/L
1,1-Dichloroethane	<0.002	mg/L
Chloroform	<0.002	mg/L
1,1,1-Trichloroethane	<0.002	mg/L
1,2 Dichloroethane	<0.002	mg/L
Benzene	0.006	mg/L
Carbon Tetrachloride	<0.002	mg/L
Trichloroethene	<0.002	mg/L
Bromodichloromethane	<0.002	mg/L
2(chloroethoxy) ethene	<0.002	mg/L
trans-1,3Dichloropropene	<0.002	mg/L
1,2-Dichloropropane	<0.002	mg/L
cis 1,3-Dichloropropene	<0.002	mg/L
Toluene	0.002	mg/L
1,1,2-Trichloroethane	<0.002	mg/L
Dibromochloromethane	<0.002	mg/L
Tetrachloroethene	<0.002	mg/L
Chlorobenzene	<0.002	mg/L
Ethylbenzene	<0.002	mg/L
Bromoform	<0.002	mg/L
1,1,2,2-Tetrachloroethane	<0.002	mg/L
1,3-Dichlorobenzene	<0.002	mg/L
1,2-Dichlorobenzene	<0.002	mg/L
1,4-Dichlorobenzene	<0.002	mg/L

METHOD: VOLATILE ORGANIC COMPOUNDS EPA 601 & 602(624)


Mitch Irvin


Date

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CHEMICAL ANALYSIS OF WATER

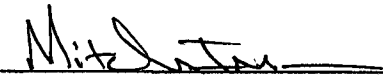
Company: Texaco Exploration & Production
Address: West Star Route Box 425
City/State: Lovington NM 88260
Proj.Name: Texaco E & P
Location: Buckeye New Mexico

Date: 12/22/95
Lab #: H2336-1-4

Sample 1 : Cooling Tower water
Sample 2 : Water well
Sample 3 : Oil/Water Separator
Sample 4 : High Pressure Separator

PARAMETER	RESULT 1	RESULT 2	RESULT 3	RESULT 4
pH	7.06	7.07	7.72	7.17
Alkalinity	90	170	500	300
Carbonate	-0-	-0-	-0-	-0-
Bicarbonate (HCO ₃)	90	170	500	300
Total Hardness	8360	4040	960	3600
Chloride (Cl)	2400	1680	5000	8400
Sulfate (SO ₄)	113.0	29.0	87.5	102.0
TDS	1291	360	110	670
Conductivity (umhos/cm)	1130	400	400	1250

Methods: EPA 600/4-79-02


Mitch Irvin

12/29/95
Date

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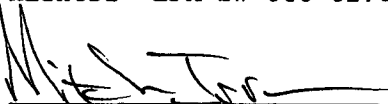
FINAL ANALYSIS REPORT

Company: Texaco Exploration & Production, Inc. Date: 12/27/95
Address: West Star Route Box 425 Lab #: H2336-3
City, State: Lovington New Mexico 88260
Project Name: Texaco E & P
Location: Buckeye Plant
Sampled by: MI/MG Date: 12/12/95
Sample Type: Water Sample Condition: Intact
Sample ID: Oil/Water Separator

POLYNUCLEAR AROMATIC HYDROCARBONS

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Naphthalene	0.010	mg/L
Acenaphthylene	<0.002	mg/L
Acenaphthene	<0.002	mg/L
Fluorene	<0.002	mg/L
Phenanthrene	<0.002	mg/L
Anthracene	<0.002	mg/L
Fluoranthene	<0.002	mg/L
Pyrene	<0.002	mg/L
Benzo(a)anthracene	<0.002	mg/L
Chrysene	<0.002	mg/L
Benzo(b)fluoranthene	<0.002	mg/L
Benzo(k)fluoranthene	<0.002	mg/L
Benzo(a)pyrene	<0.002	mg/L
Indeno(1,2,3-cd)pyrene	<0.002	mg/L
Dibenzo(a,h)anthracene	<0.002	mg/L
Benzo(g,h,i)perylene	<0.002	mg/L

METHODS- EPA SW 846-8270


Mitch Irvin


Date

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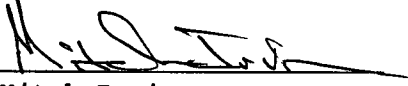
FINAL ANALYSIS REPORT

Company: Texaco Exploration & Production, Inc. Date: 12/27/95
Address: West Star Route Box 425 Lab #: H2336-2
City, State: Lovington New Mexico 88260
Project Name: Texaco E & P
Location: Buckeye Plant
Sampled by: MI/MG Date: 12/12/95
Sample Type: Water Sample Condition: Intact
Sample ID: Water Well

POLYNUCLEAR AROMATIC HYDROCARBONS

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Naphthalene	<0.002	mg/L
Acenaphthylene	<0.002	mg/L
Acenaphthene	<0.002	mg/L
Fluorene	<0.002	mg/L
Phenanthrene	<0.002	mg/L
Anthracene	<0.002	mg/L
Fluoranthene	<0.002	mg/L
Pyrene	<0.002	mg/L
Benzo(a)anthracene	<0.002	mg/L
Chrysene	<0.002	mg/L
Benzo(b)fluoranthene	<0.002	mg/L
Benzo(k)fluoranthene	<0.002	mg/L
Benzo(a)pyrene	<0.002	mg/L
Indeno(1,2,3-cd)pyrene	<0.002	mg/L
Dibenzo(a,h)anthracene	<0.002	mg/L
Benzo(g,h,i)perylene	<0.002	mg/L

METHODS- EPA SW 846-8270


Mitch Irvin


Date 12/28/95

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FINAL ANALYSIS REPORT

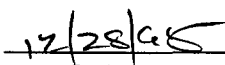
Company: Texaco Exploration & Production, Inc. Date: 12/27/95
Address: West Star Route Box 425 Lab #: H2336-1
City, State: Lovington New Mexico 88260
Project Name: Texaco E & P
Location: Buckeye Plant
Sampled by: MI/MG Date: 12/12/95
Sample Type: Water Sample Condition: Intact
Sample ID: Cooling Tower

POLYNUCLEAR AROMATIC HYDROCARBONS

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Naphthalene	<0.002	mg/L
Acenaphthylene	<0.002	mg/L
Acenaphthene	<0.002	mg/L
Fluorene	<0.002	mg/L
Phenanthrene	<0.002	mg/L
Anthracene	<0.002	mg/L
Fluoranthene	<0.002	mg/L
Pyrene	<0.002	mg/L
Benzo(a)anthracene	<0.002	mg/L
Chrysene	<0.002	mg/L
Benzo(b)fluoranthene	<0.002	mg/L
Benzo(k)fluoranthene	<0.002	mg/L
Benzo(a)pyrene	<0.002	mg/L
Indeno(1,2,3-cd)pyrene	<0.002	mg/L
Dibenzo(a,h)anthracene	<0.002	mg/L
Benzo(g,h,i)perylene	<0.002	mg/L

METHODS- EPA SW 846-8270


Mitch Irvin


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FINAL ANALYSIS REPORT

Company: Texaco Exploration & Production, Inc. Date: 12/27/95
Address: West Star Route Box 425 Lab #: H2336-4
City, State: Lovington New Mexico 88260
Project Name: Texaco E & P
Location: Buckeye Plant
Sampled by: MI/MG Date: 12/12/95
Sample Type: Water Sample Condition: Intact
Sample ID: High Pressure Separator

POLYNUCLEAR AROMATIC HYDROCARBONS

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Naphthalene	0.063	mg/L
Acenaphthylene	<0.002	mg/L
Acenaphthene	<0.002	mg/L
Fluorene	0.006	mg/L
Phenanthrene	0.009	mg/L
Anthracene	<0.002	mg/L
Fluoranthene	<0.002	mg/L
Pyrene	<0.002	mg/L
Benzo(a)anthracene	<0.002	mg/L
Chrysene	<0.002	mg/L
Benzo(b)fluoranthene	<0.002	mg/L
Benzo(k)fluoranthene	<0.002	mg/L
Benzo(a)pyrene	<0.002	mg/L
Indeno(1,2,3-cd)pyrene	<0.002	mg/L
Dibenzo(a,h,)anthracene	<0.002	mg/L
Benzo(g,h,i)perylene	<0.002	mg/L

METHODS- EPA SW 846-8270


Mitch Irvin

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FINAL ANALYSIS REPORT

Company: Texaco Exploration & Production, Inc. Date: 12/27/95
Address: West Star Route Box 425 Lab #: H2336-4
City, State: Lovington, New Mexico 88260

Project Name: Texaco E & P Inc
Location: Buckeye Plant
Sampled by: MI/MG Sample Date: 12/12/95
Sample Type: water Sample Condition: intact
Sample ID: Hight Pressure Separator

VOLATILE ORGANIC COMPOUNDS

PARAMETER	RESULT	UNITS
Chloromethane	<0.100	mg/L
Vinyl chloride	<0.100	mg/L
Bromomethane	<0.100	mg/L
Chloroethane	<0.100	mg/L
Trichlorofluoromethane	<0.100	mg/L
1,1-Dichloroethene	<0.100	mg/L
Methylene chloride	<0.100	mg/L
trans-1,2 Dichloroethene	<0.100	mg/L
1,1-Dichloroethane	<0.100	mg/L
Chloroform	<0.100	mg/L
1,1,1-Trichloroethane	<0.100	mg/L
1,2 Dichloroethane	<0.100	mg/L
Benzene	9.130	mg/L
Carbon Tetrachloride	<0.100	mg/L
Trichloroethene	<0.100	mg/L
Bromodichloromethane	<0.100	mg/L
2(chloroethoxy) ethene	<0.100	mg/L
trans-1,3Dichloropropene	<0.100	mg/L
1,2-Dichloropropane	<0.100	mg/L
cis 1,3-Dichloropropene	<0.100	mg/L
Toluene	6.650	mg/L
1,1,2-Trichloroethane	<0.100	mg/L
Dibromochloromethane	<0.100	mg/L
Tetrachloroethene	<0.100	mg/L
Chlorobenzene	<0.100	mg/L
Ethylbenzene	1.250	mg/L
Bromoform	<0.100	mg/L
1,1,2,2-Tetrachloroethane	<0.100	mg/L
1,3-Dichlorobenzene	<0.100	mg/L
1,2-Dichlorobenzene	<0.100	mg/L
1,4-Dichlorobenzene	<0.100	mg/L

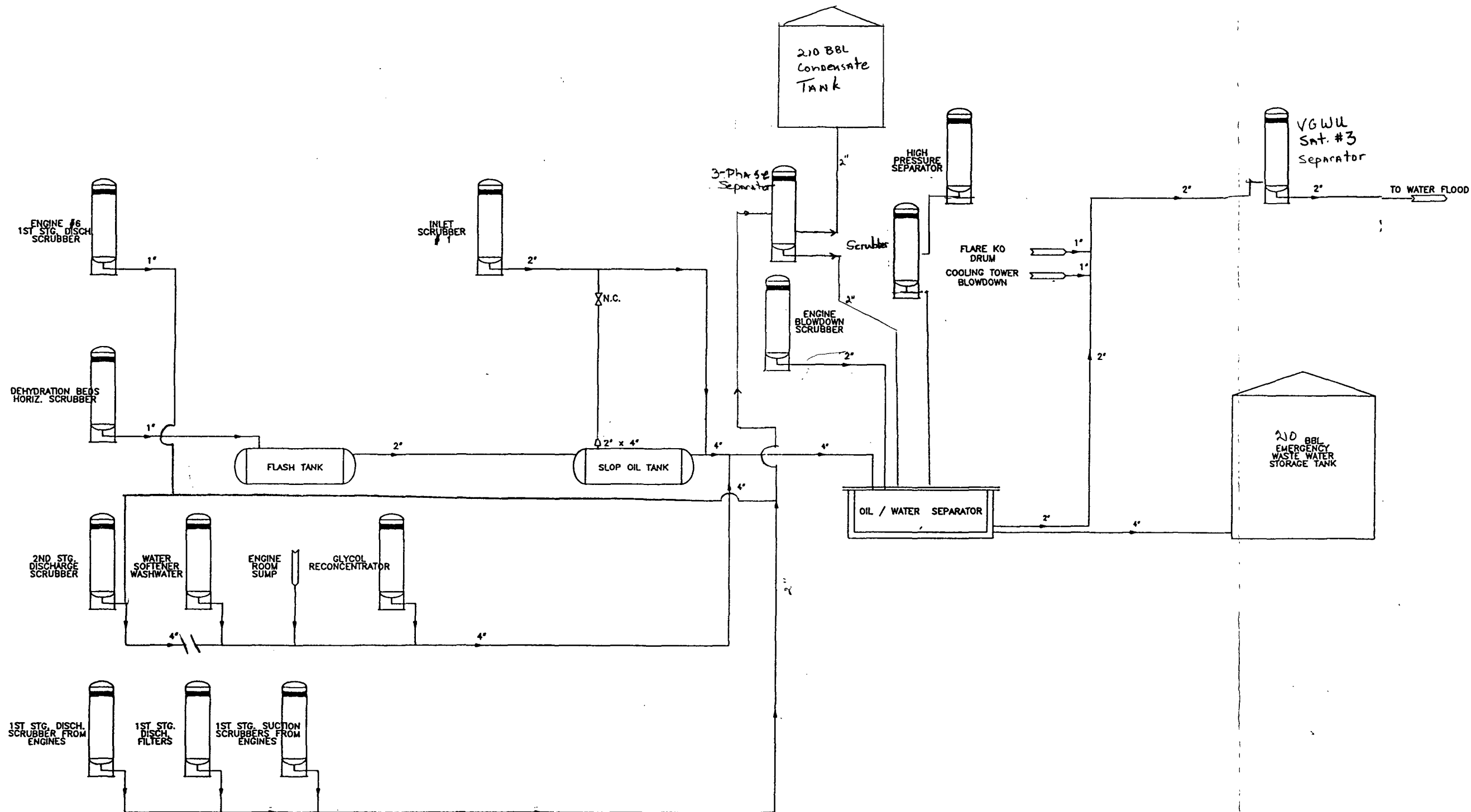
*detection limit 0.2

METHOD: VOLATILE ORGANIC COMPOUNDS EPA 601 & 602(624)

Mitch Irvin
Mitch Irvin

12/29/95
Date

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GENERAL NOTES:

REVISIONS

REV.	DESCRIPTION	BY	CHK
1	ISSUE FOR N.M. OGD PERMIT	JH	

REFERENCE DRAWINGS

DRAWING NO.	TITLE	DRAWING NO.	TITLE

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TEXACO | NATURAL GAS PLANTS AND LIQUIDS DIVISION

APPROVED	DATE	TITLE
CHECKED		
DESIGNED		
DRAWN		
BY		

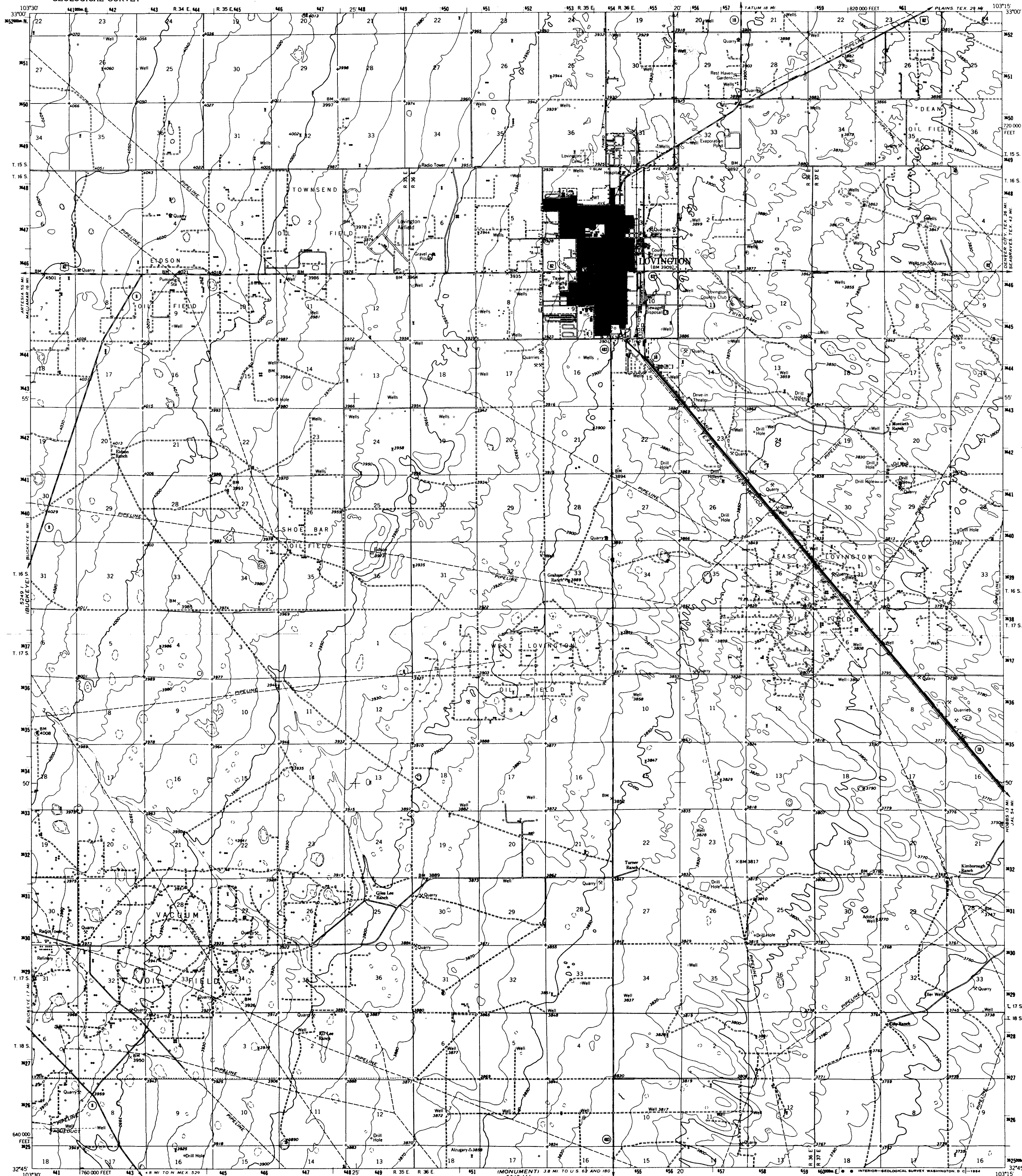
WASTE WATER SYSTEM BLOCK FLOW DIAGRAM

LEA COUNTY	BUCKEYE GAS PLANT	NEW MEXICO
EST. NO.	SCALE	DWG. NO.
		D-0080-20-000

BUCKEYE QUADRANGLE
NEW MEXICO-LEA CO.
15 MINUTE SERIES (TOPOGRAPHIC)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOVINGTON QUADRANGLE
NEW MEXICO-LEA CO.
15 MINUTE SERIES (TOPOGRAPHIC)



Maped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Planimetry by photogrammetric methods from aerial photographs
taken 1957. Topography by planetable surveys 1962
Polyconic projection. 1927 North American datum
10,000-foot grid based on New Mexico coordinate system, east zone
1000 meter Universal Transverse Mercator grid ticks,
zone 13, shown in blue
Red tint indicates area in which only landmark buildings are shown

UTM GRID AND 1962 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

SCALE 1:62,500
1"=5000'
CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION
Heavy-duty ——— Light-duty ———
Medium-duty ——— Unimproved dirt ———
U.S. Route ——— State Route ———

NEW MEXICO
QUADRANGLE LOCATION

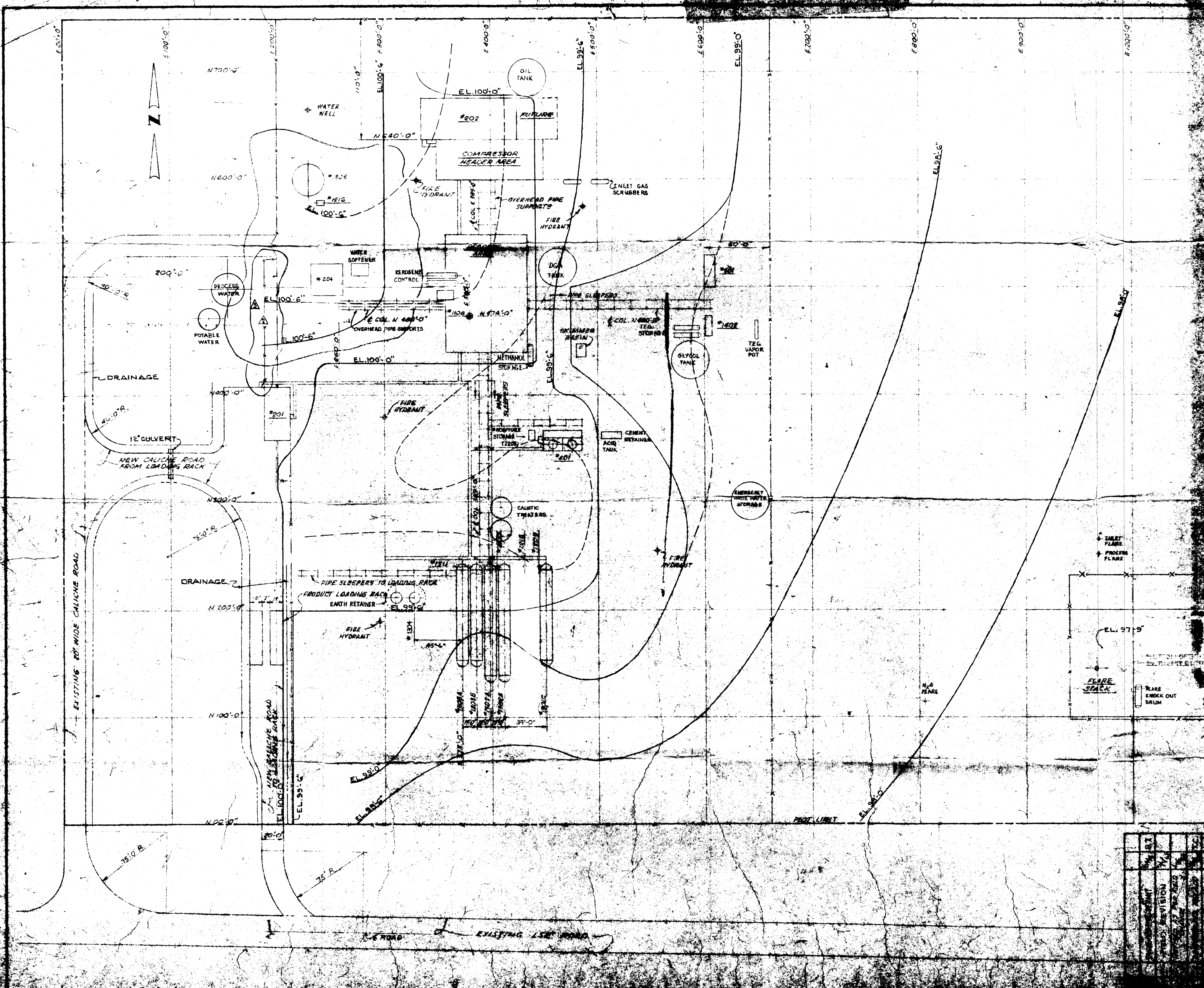
LOVINGTON, N. MEX.
N3245-W10315/15

1962

AMS 5349 IV-SERIES V781

BUCKEYE G.P.
PLT. 0060

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D.C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



ITEM NO.	QUANTITY	DESCRIPTION
201	1	Building, Instrumentation Warehouse
202	1	Compressor Building
203	1	Control Building
204	1	Generator Building
301	1	Refrigerator
302	2	Gas Compressor (Existing)
303	1	Gas Compressor (Existing)
401	1	Process Control Tower
501	1	Refrigerator Building
601	2	Primary Generators
701	1	Water Softener
702	2	Water Cooler
703	1	Water Heater/Boiler
704	1	Water Heater/Boiler
705	1	Water Heater/Boiler
706	1	Water Heater/Boiler
707	1	Water Heater/Boiler
708	1	Water Heater/Boiler
709	1	Water Heater/Boiler
710	1	Water Heater/Boiler
711	1	Water Heater/Boiler
712	1	Water Heater/Boiler
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HUDSON ENGINEERING COMPANY

1000 10th Avenue, New York, N.Y. 10018

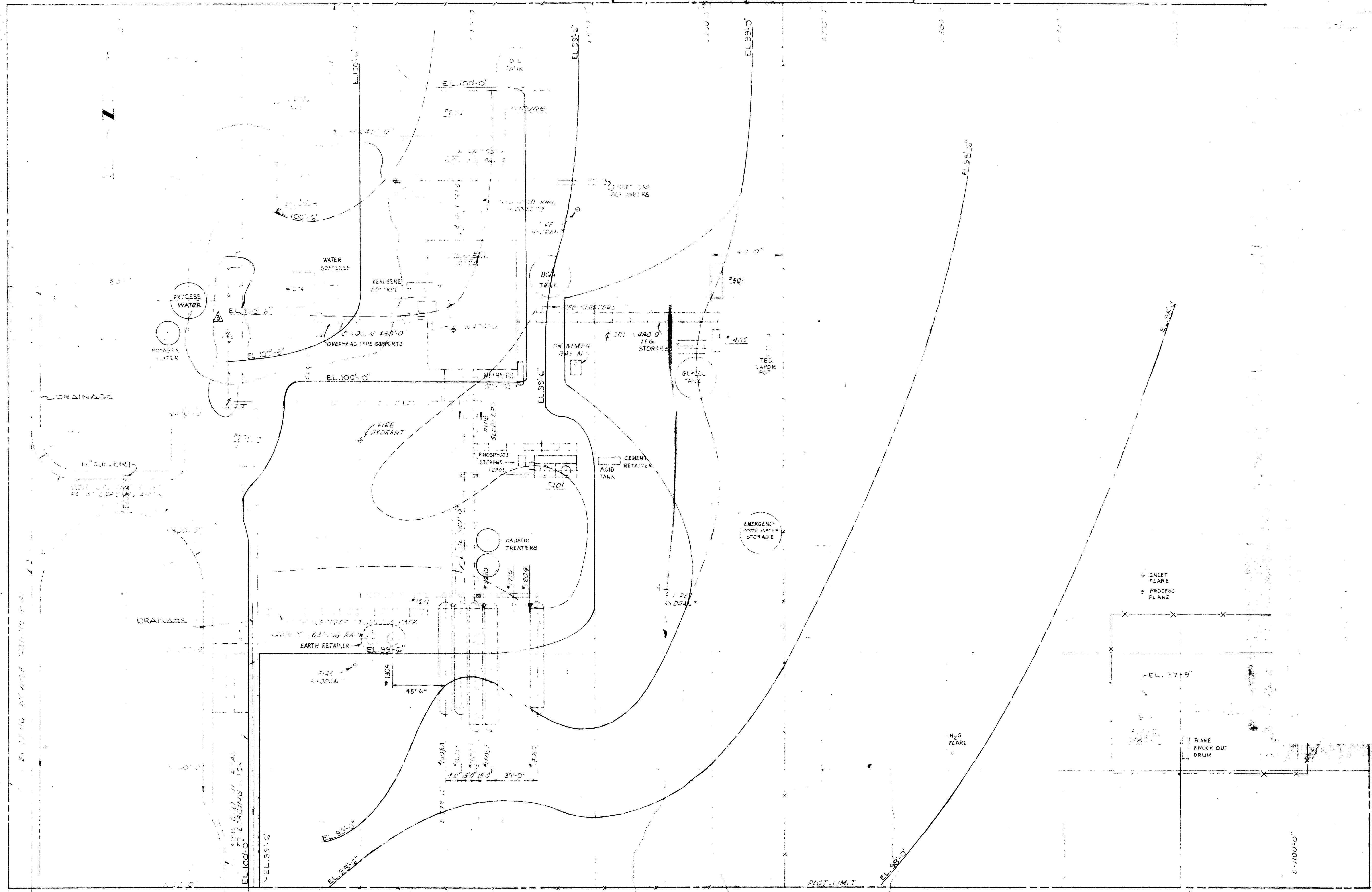
Tel. (212) 697-1000

Telex: 270700

Fax: (212) 697-1000

E-Mail: hudson@engr.com

Web: www.hudsonengr.com



ISSUED FOR PERMIT		B.T.		DATE	
FIELD REVISION		5/6/65		DATE	
REVISED AS PER FIELD CHANGE		1/6/65		DATE	
REVISION PER TEXACO		1/6/65		DATE	
CHECKED		DATE		DATE	
ENGINEER		DATE		DATE	
APPROVED		DATE		DATE	
APPROVED		DATE		DATE	

HUDSON ENGINEERING CORPORATION HOUSTON, TEXAS	
TITLE <u>PLOT PLAN</u>	
BUCKEYE PROCESSING PLANT - LEB COUNTY, N.M.	
FOR <u>TEXACO INC.</u> HOUSTON, TEXAS	
SCALE <u>1" = 40'-0"</u>	DATE <u>5/6/65</u>
DRAWN <u>A.D.S.</u>	DATE <u>5/6/65</u>
CHECKED <u>DATE</u>	DATE <u>5/6/65</u>
ENGINEER <u>DATE</u>	DATE <u>5/6/65</u>
APPROVED <u>DATE</u>	DATE <u>5/6/65</u>
APPROVED <u>DATE</u>	DATE <u>5/6/65</u>

TEXACO INC.
BUCKEYE GAS
PLANT

T-17-S
T-18-S

CVU #139

36

R-34-E

R-35-E

31

MARATHON WARM
ST. AC-2 #12

CVU/MSW #3

TW #3
3864.2

TW #2
3864.2

6

TW #4
3865.6

CVU #98

CVU #162

TW #8
3866.9

TW #9
3866.6

TW #10
3867.3

TW #11
3867.7

TW #12
3870.1

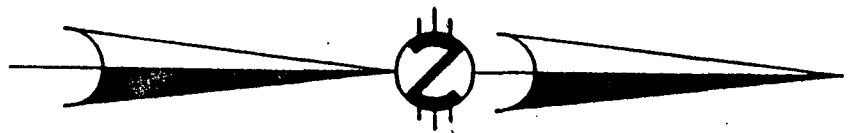
VS SAN #58-2
3868.4

3868.0

TW #15
3865.3

TW #16
3868.7

CVU #137



SCALE 1" = 200'

NOTE: TW = TEST WELL

NEW MEXICO OIL CONSERVATION DIVISION

PAUL F. KAUTZ

BUCKEYE AREA STUDY

CONTOUR ON WATER SURFACE

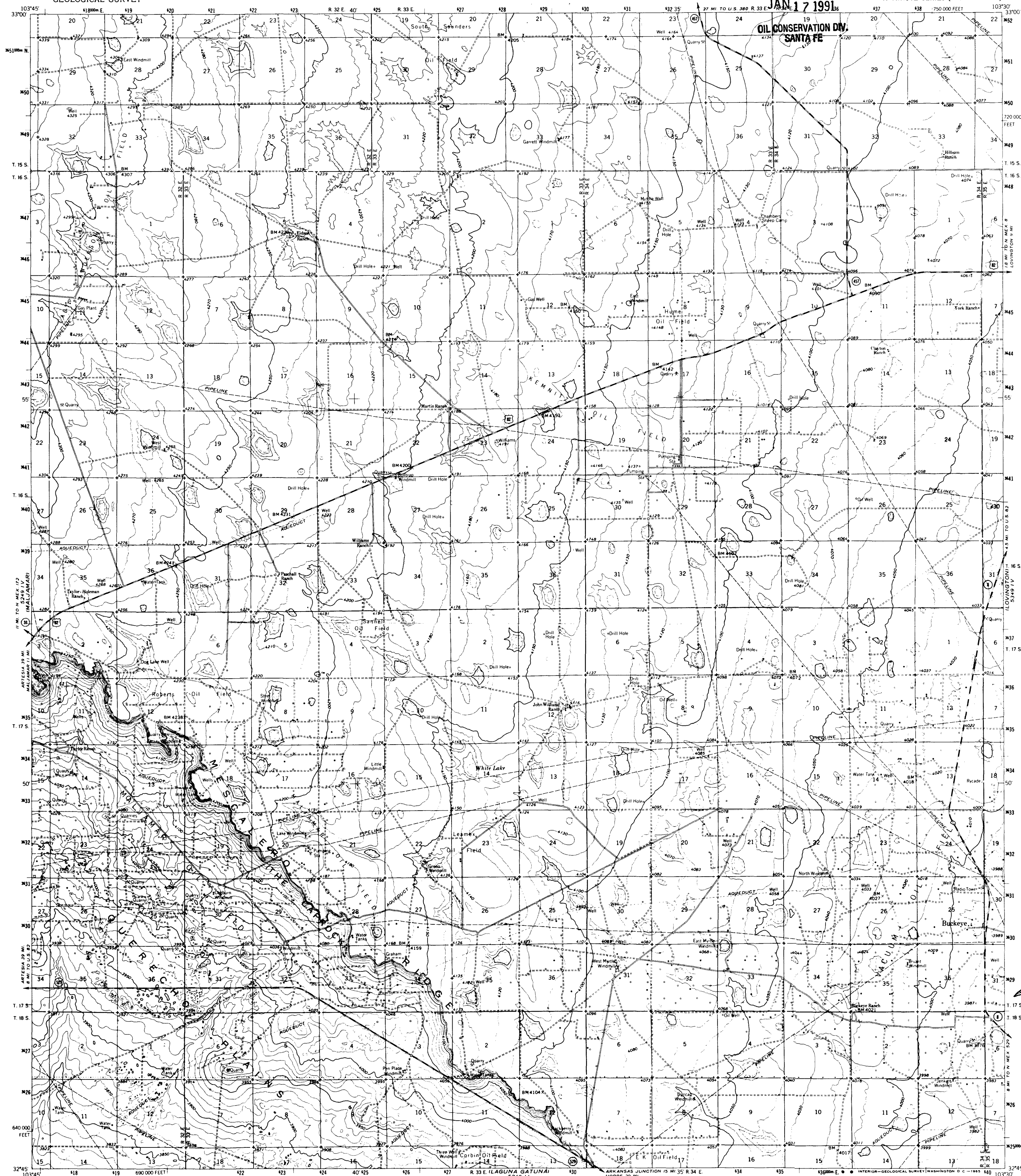
CVU/MSW #3 SHUT IN OVERNIGHT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED

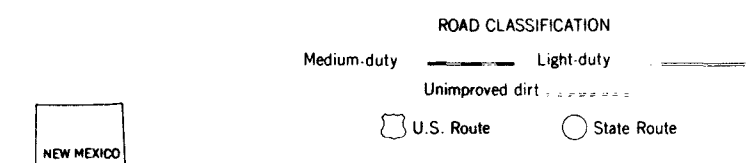
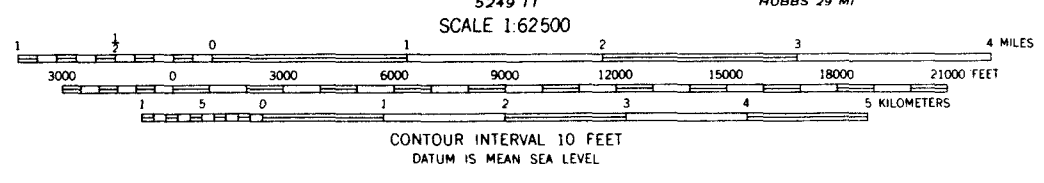
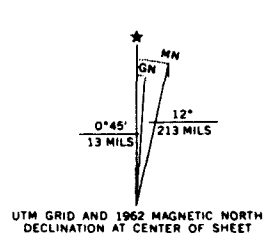
BUCKEYE QUADRANGLE
NEW MEXICO-LEA CO.
15 MINUTE SERIES (TOPOGRAPHIC)

JAN 17 1991



CLAYTON BASIN
5249 111

Mapped, edited, and published by the Geological Survey
Control by USGS and USCGS
Planimetry by photogrammetric methods from aerial photographs
taken 1957 Topography by planimetric surveys 1962
Polyconic projection, 1927 North American datum
10,000 foot grid based on New Mexico coordinate system, east zone
1000 meter Universal Transverse Mercator grid ticks,
zone 13, shown in blue
Fine red dashed lines indicate selected fence lines



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D.C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

BUCKEYE G.P.
PLT. 0060

BUCKEYE, N. MEX.
N3245-W10330/15
1962
AMS 5249-1-SERIES V781

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

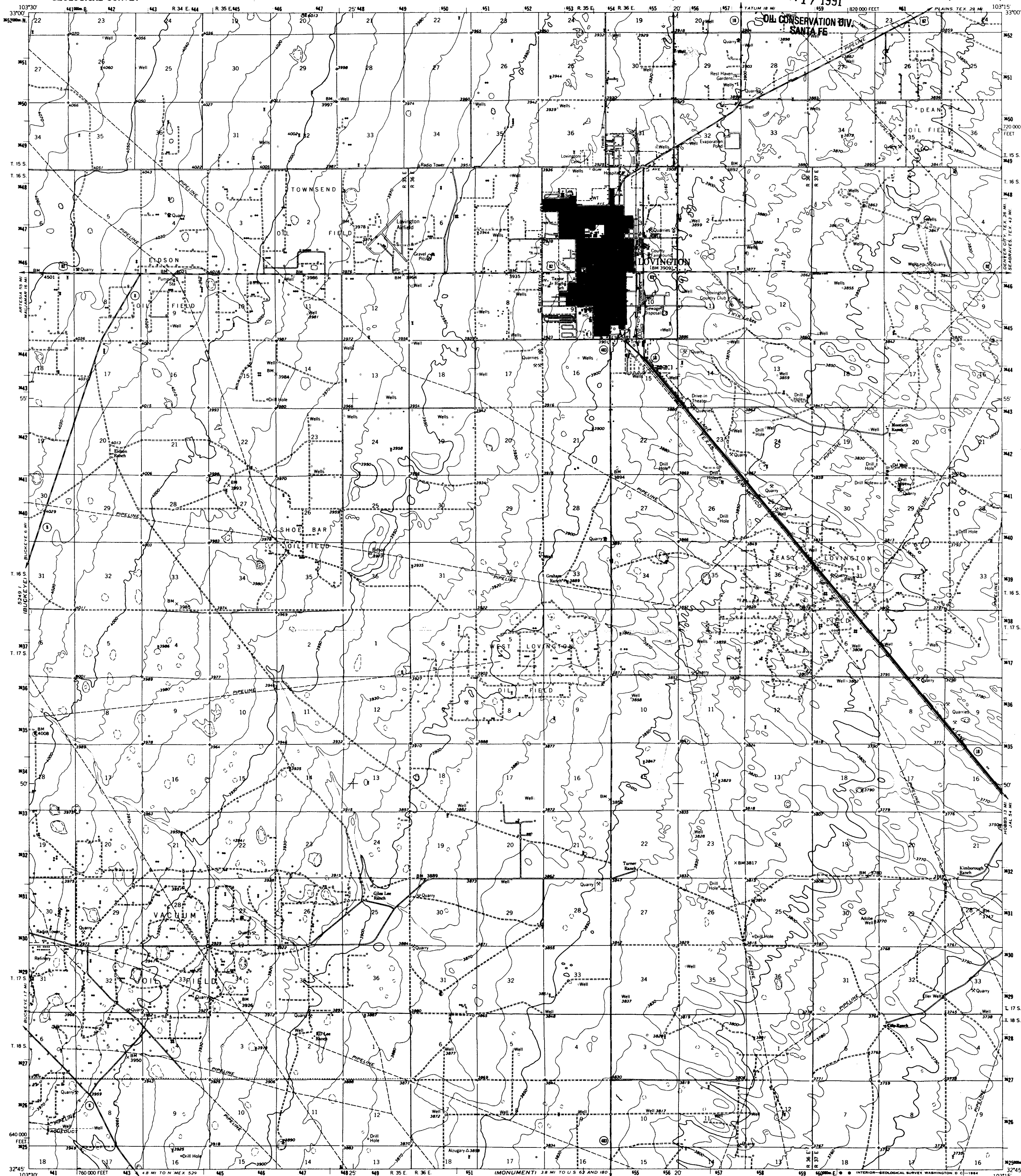
RECEIVED

LOVINGTON QUADRANGLE

NEW MEXICO-LEA CO.

15 MINUTE SERIES (TOPOGRAPHIC)

JAN 17 1991



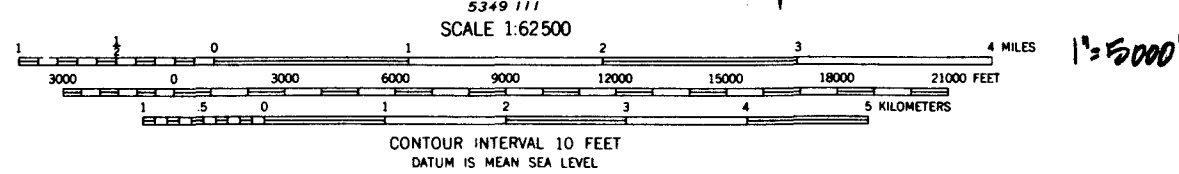
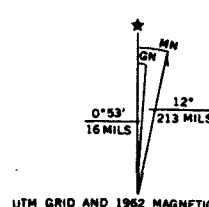
Mapped, edited, and published by the Geological Survey

Contr. by USGS and USC&GS

Planimetry by photogrammetric methods from aerial photographs
taken 1957. Topography by planetable surveys 1962

Polyconic projection. 1927 North American datum
10,000-foot grid based on New Mexico coordinate system, east zone
1000-meter Universal Transverse Mercator grid ticks,
zone 13, shown in blue

Red tint indicates area in which only landmark buildings are shown



ROAD CLASSIFICATION
Heavy-duty _____ Light-duty _____
Medium-duty _____ Unimproved dirt _____
U.S. Route _____ State Route _____



The NE quarter also covered by 7.5 minute
1:24,000 scale map. Lovington 1962

LOVINGTON, N. MEX.
N3245-W10315/15

1962

AMS 5349 IV-SERIES V781

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

BUCKEYE G.P.
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